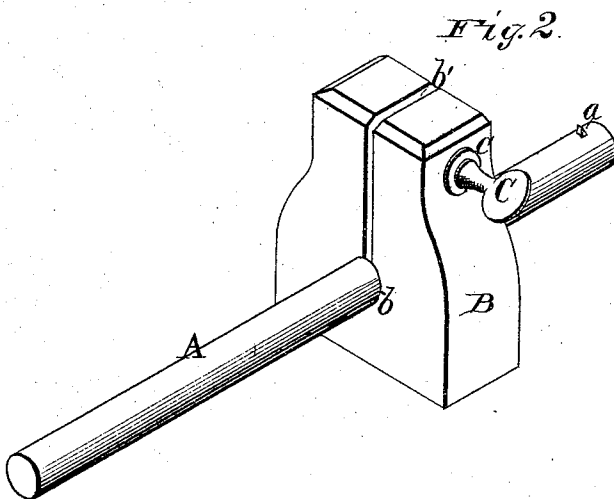
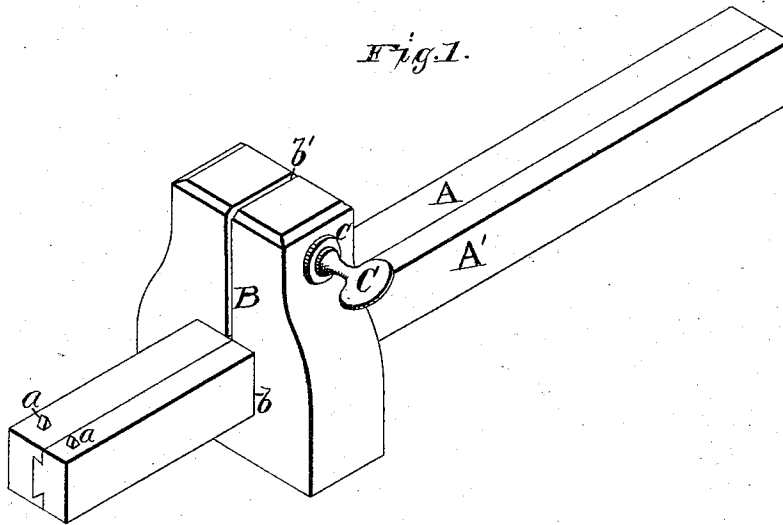


W. S. HOW.
MECHANICS' GAGES.

No. 184,209.

Patented Nov. 7, 1876.



WITNESSES
Frank L. Outland.
P. McKie

By

INVENTOR
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Attorney

UNITED STATES PATENT OFFICE.

WOODBURY S. HOW, OF CINCINNATI, OHIO, ASSIGNOR OF ONE-FOURTH OF HIS RIGHT TO WILLIAM J. BREED, OF SAME PLACE.

IMPROVEMENT IN MECHANICS' GAGES.

Specification forming part of Letters Patent No. 184,209, dated November 7, 1876; application filed August 19, 1876.

To all whom it may concern:

Be it known that I, WOODBURY S. HOW, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Carpenters' Gages, of which the following is a specification:

Figure 1 shows, in perspective, the invention as applied to a double gage-bar. Fig. 2, also in perspective, shows the invention as applied and used with a single gage-bar.

The design of the present invention is to improve a mechanic's gage, wherein the scriber is adapted to be fixed in a given position for use; and it consists in a gage-head cleft through one side, in axial line with the bar or gage-rod proper, and coupled across the cleft with a clamp-screw, in combination with a scribing gage-bar, all combined and operating substantially as will now be more specifically and in detail set out and explained.

The gage bar or rod is made in one piece, as in Fig. 2, and square, round, or of any desired form in cross-section; or it may be made in two parts, as represented at A A', Fig. 1, adapted to move on each other by tongue and groove or dovetail, or in any like or convenient way.

I have provided the usual marking-point *a* on the end of each bar or rod. The said bar or rod, single or double, as above set forth, passes through a suitable opening, *b*, in the gage-head B. From this opening to the edge of the head is a slit or cleft, *b'*, by means of which the said opening can be a little expanded or contracted, according as it is desired to move

said rod or bar, or to have it fixed in position. To lock it in any desired position I have provided the clamp-screw C, which passes through the divided parts of B, and by this means they are drawn closely together to clamp and secure said rod rigidly in any desired position. To move said bar in said opening it is only necessary to loosen said clamp-screw. It is not essential that the slit or cleft should be in a vertical line, as above indicated.

These gages may be made entirely of wood or of metal, or partly of each. Any desired form of clamp-screw can be used instead of that now precisely indicated.

As thus made and used I afford a cheap and serviceable tool for the mechanic, and one easily adapted to his work. By the peculiar construction of the clamping portions, the rod or bar is not injured or marred in moving or clamping it. If desired, the faces of the bar or rod may be marked with graduated lines.

Having thus described my invention, what I consider new, and desire to secure by Letters Patent, is—

A gage-head cleft through one side in axial line with the bar, and coupled across the cleft with a clamp-screw, in combination with a scribing gage bar or rod, substantially as shown and described.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

WOODBURY S. HOW.

Witnesses:

J. L. WARTMANN,
F. C. MILLER.