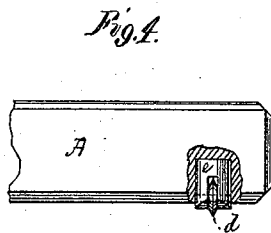
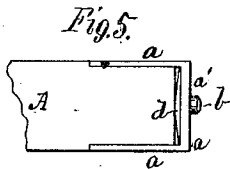
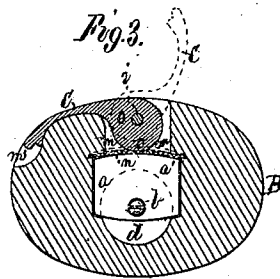
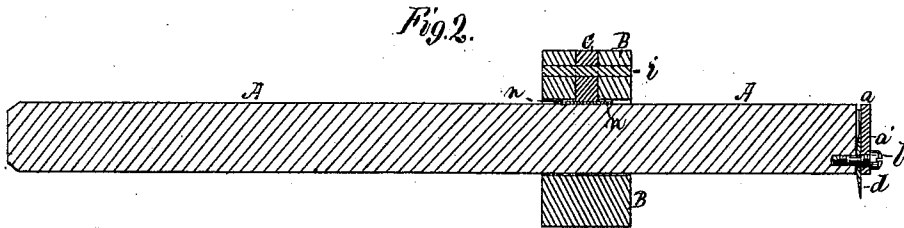
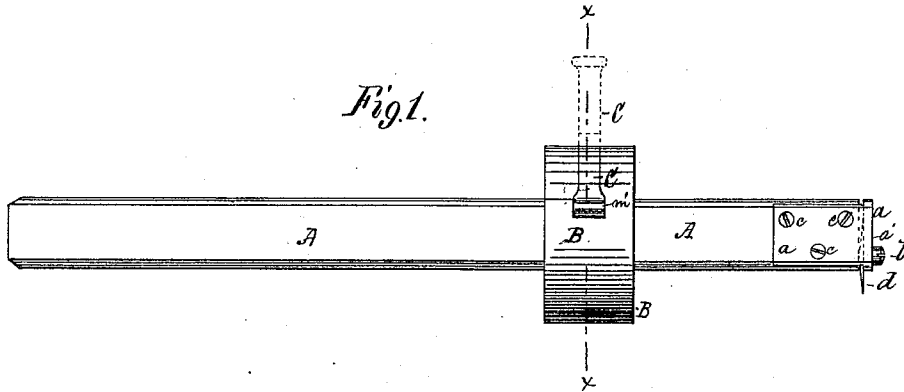


J. VETTERLEIN.
CARPENTERS' GAGES.

No. 174,879.

Patented March 14, 1876.



Witnesses:
L. Van Renswick
D. C. Stuart

Inventor:
John Vetterlein
per P. Hannay
attest.

UNITED STATES PATENT OFFICE.

JOHN VETTERLEIN, OF PLAINFIELD, NEW JERSEY.

IMPROVEMENT IN CARPENTERS' GAGES.

Specification forming part of Letters Patent No. **174,879**, dated March 14, 1876; application filed July 20, 1875.

To all whom it may concern:

Be it known that I, JOHN VETTERLEIN, of Plainfield, in the county of Union and State of New Jersey, have invented certain new and useful Improvements in Carpenters' Gages; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it pertains to make and use the same, reference being had to the accompanying drawing, and to the letters of reference marked thereon, which form a part of this specification, in which—

Figure 1 represents a side elevation of a carpenter's gage having my improvements applied thereto, and Fig. 2 a vertical longitudinal section of the same. Fig. 3 represents an end view of the instrument, the adjusting-block being shown in section, as taken through the line *xx* of Fig. 1. Fig. 4 represents a side elevation of the front end of the handle, showing a different arrangement of the marking or cutting device, a portion of the handle being broken out to show the construction of the cutting device. Fig. 5 represents a plan of the front end of the handle, and which, for this purpose, is represented as being broken off.

The object of my invention is to simplify and expedite the adjustment of carpenters' gages, and to insure a smooth and regular cut for the guide mark or line; and it consists in combining with the guide-block a friction-plate and cam-lever, through which the gage can be rapidly and easily set, and the block securely held in place while the gage is in use.

To enable others skilled in the art to make, construct, and use my invention, I will now proceed to describe it in detail.

In making my improved instrument I employ as the foundation the ordinary handle A and guide-block B. To the forward end of the handle A I secure a metallic clip, *a*, (see Figs. 1, 2, and 5,) which consists of a metallic plate bent so as to form two projecting arms, between which the end of the handle is inserted, and the two then secured together by screws *c*. In fitting the end of the handle between the arms of the clip the wood is cut down on each side, that, when fitted together, the outer side of the arms and sides of the remaining

portion of the handle will be flush, the one with the other. Moreover, in fitting the two together, a small space is left between the outer end of the handle and the inner face of the end of the metal clip, into which is inserted a rotating circular cutting-knife, *d*, and which is mounted and turns on the shank of a screw, *b*, which passes through the lower edge of the end *a'* of clip *a* into the end of the handle B, as shown in Fig. 2. The shape of the cutting-knife is not material, as it may either be made plano-convex or bi-convex, or in any other known and suitable form. The plano-convex, however, is preferred, as it is more easily sharpened. In Fig. 4 a modification of the arrangement of the rotating knife is shown, where, instead of being arranged at the immediate end of the handle, it is arranged at about the position of the stationary edged knife or point of the ordinary gage. In this case the cutting-wheel *d* is mounted on a pivotal pin, so as to run in a slot cut in a small barrel or cylinder, *e*, as shown in Fig. 4. The cylinder, thus provided with the rotating cutting-tool, is then inserted into a corresponding opening cut in the under side of the handle A. To retain it in place the inner end of the cylinder may, if desired, be provided with a screw-thread, and by which the projection of the cutting-knife from its lower side may be increased or diminished, as circumstances may require.

A rotary cutter for marking or gaging possesses an advantage over the stationary cutter, as it is much less liable to get out of line, and will make a clean and smooth cut, which the other does not.

Guide-block B is provided with a vertical slot, *m*, extending down to and communicating with the ordinary handle-opening of the gage. Into this slot is fitted a cam-lever, C, mounted on a fulcrum-pin, *i*, which passes through the block B, as shown in Figs. 2 and 3. A groove, *m'*, is cut so as to connect at one end with slot *m*, and running thence outward to the side so as to form a recess for the reception of the cam-lever G when depressed, as shown in Fig. 3. At the upper edge of the mortise cut for the reception of the handle is arranged an upwardly-curved spring-plate, *n*, upon the upper side of which the lower edge of the cam *o* of

cam-lever C presses when the latter is depressed, as in black lines in Fig. 3. Spring-plate *n* is held in place by being made slightly longer than the width of the handle-slot, the upper edges of which are provided with grooves, *v*, into which the spring-plate *n* is forced and fits. The plate thus arranged forms the upper side of the handle-slot. The curve of plate *n* is such that, when the cam-lever is raised, as shown in dotted lines in Fig. 3, it will allow free passage to the handle A for adjustment of the gage, and so that when the lever is turned down it will force plate *n* firmly against the upper side of the handle, and thus clamp or bind it to the block while the gage is being used. The hand of the operator, while using the implement, holds the lever C and cam *o* firmly in place.

Block B may be reversed so as to adapt it to mechanics who use the left or right hand.

If desired, a small knob may be formed on the outer or free end of the cam-lever to facili-

tate its raising from groove *m'*. Moreover, it will be apparent a guide-block, B, provided with a cam-lever, C, and spring-plate, *n*, may be applied to any kind of a carpenters' gage without altering the principle of the invention in the least.

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

A spring-plate, *n*, arranged in grooves *v*, in combination with the handle A, guide-block B, and cam-lever C, the whole arranged to operate in the manner substantially as and for the purposes set forth.

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

JOHN VETTERLEIN.

Witnesses:

WALTER L. HETFIELD,
JOHN H. VAN WINKLE.