(No Model.)

W. G. ROSS.

SCRATCH GAGE.

No. 396,371. Patented Jan. 15, 1889.

Fig. 1.

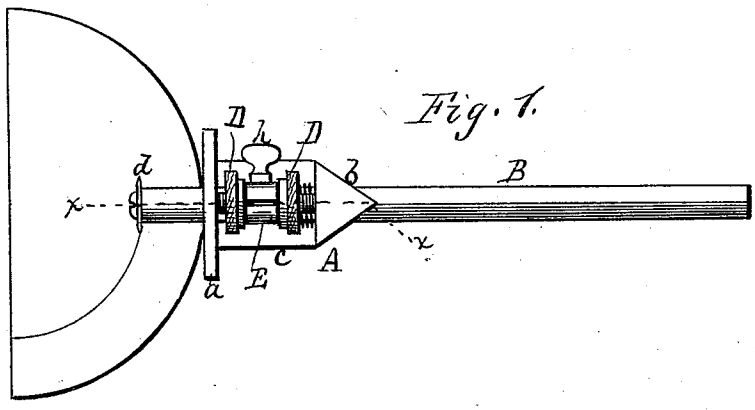


Fig. 2.

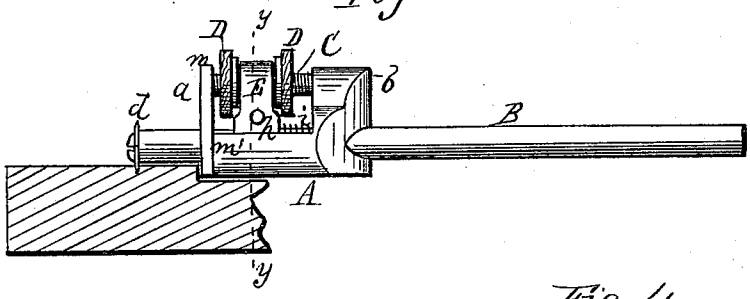


Fig. 3.

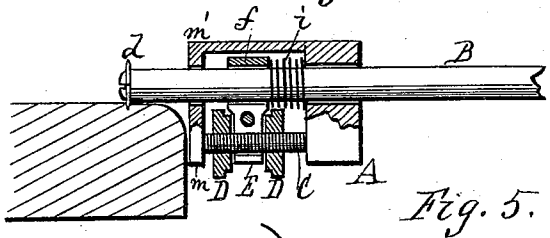


Fig. 4.

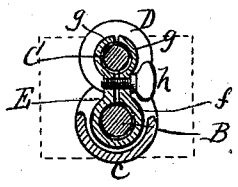


Fig. 5.

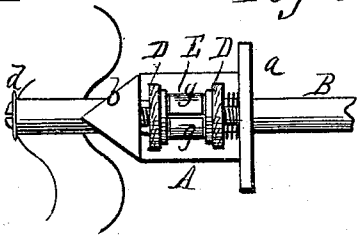
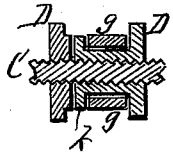


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM G. ROSS, OF DECATUR, ILLINOIS, ASSIGNOR OF ONE-HALF TO WILLIAM A. HOUCK, OF ROCHESTER, NEW YORK.

SCRATCH-GAGE.

SPECIFICATION forming part of Letters Patent No. 396,371, dated January 15, 1889.

Application filed August 9, 1888. Serial No. 282,330. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM G. ROSS, of Decatur, in the county of Macon and State of Illinois, have invented a certain new and useful Improvement in Scratch-Gages; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the drawings accompanying this application.

My improvement relates to devices known as "scratch-gages," the object being to mark a line at a given distance from a guiding edge or face and corresponding therewith.

The invention consists in the construction and arrangement of the device, as hereinafter more fully described and definitely claimed.

In the drawings, Figure 1 is a plan view of the device applied to a half-circular block on which the scratch-mark is being made. Fig. 2 is a side elevation of the same. Fig. 3 is a longitudinal vertical section in line *x x* of Fig. 1, but in the reversed position. Fig. 4 is a vertical cross-section in line *y y* of Fig. 2. Fig. 5 is a plan similar to Fig. 1, but showing the body or bearing of the device shifted end for end to adapt it for use in connection with notched or irregular surfaces. Fig. 6 is a section through the adjusting devices, showing a modification of the same.

A indicates the body or bearing of the device, the same consisting of a head-plate, *a*, a pointed rear end, *b*, and a half-circular body portion, *c*. The working parts are all mounted in this frame.

B is a rod or shaft running freely through holes or sockets in the body A and capable of movement forward and back. On one end is mounted a thin scratch-edge, *d*, by which the scratch-line is made.

C is a small screw-shaft mounted in the block A above the rod B and parallel therewith. This screw-shaft is fixed in position, being embedded or attached in the opposite shoulders of the block.

D and D are two adjusting-nuts, which screw back and forth on the screw.

E is a slotted clamp, the same being formed with an eye, *f*, at the bottom, through which the rod B passes, and two jaws, *g g*, which extend up face to face and loosely embrace the screw C at the top. A thumb-screw, *h*, passes through the jaws *g g*, as shown in Fig. 4. When the thumb-screw *h* is turned up, the clamp will be tightened on the rod; but when loosened the rod can slide freely forward and back independently of the clamp.

i is a spiral or other spring on the rear side of the clamp, the tendency of which is to force the clamp forward.

The rod is gaged by loosening the clamp and sliding the rod in or out till the proper adjustment is attained and then tightening the clamp again, the nuts D D being set so as to hold the clamp and prevent it from moving longitudinally. To produce extra nicety of adjustment, the nuts D D are then screwed forward or back on the screw C, which causes the block A to be correspondingly moved forward or back, thus adjusting the gage with the greatest exactness. If desired, the form shown in Fig. 6 may be used, in which the nut D has a sleeve, K, with shoulders at both ends, forming a sort of spool, around which the jaws of the clamp rest, and the other nut D abuts against it. This prevents the clamp from coming in contact with the screw. The same result will be obtained in both cases. The rod B passes through the block A one side of the vertical center, thereby forming a long gage-lip, *m*, and a short one, *m'*. The device can be used either side up, making the long or the short lip act as the gage. By this means the device can be used in a great variety of places, and can be given a greater range for accurate work. The different lengths of the gage-lips enable them to be used on different kinds of work where one lip alone would not answer. The spring *i* acts as a follower to force the clamp forward as fast as the adjusting-nut is turned forward.

The rear end of the block A is made pointed or wedge-shaped, as shown at *b*. When desired, the block can be changed end for end, so as to bring the pointed end forward, as shown in Fig. 5. The pointed end then forms the gage, and has all the advantages of the long and short gage-lips. By this arrangement the device can be used on notched, corrugated, or irregular surfaces—such as are shown in Fig. 5—the point entering such notches or indentations where the square gage could not enter.

The device above described is of great service to carpenters, machinists, and other workers in wood and metal, as it enables a fine adjustment to be obtained and follows almost any irregularity of surface, and is not liable to get disarranged, when once set, if thrown down on the bench, or from other rough usage.

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

1. In a scratch-gage, the combination of the block A, the rod B, extending through the same and provided with the scratch-point *d*, the screw C, the adjusting-nuts D D, slotted clamp E, and the thumb-screw *h*, arranged to operate in the manner and for the purpose specified.

2. In a scratch-gage, the combination of the block A, the rod B, provided with scratch-point *d*, the screw C, the adjusting-nuts D D, the slotted clamp E, the thumb-screw *h*, and the spring *i*, arranged to operate in the manner and for the purpose specified.

In witness whereof I have hereunto signed my name in the presence of two subscribing witnesses.

WILLIAM G. ROSS.

Witnesses:
A. T. SUMMERS,
JEROME ANDERSON.