R. Hathaway.

Turning Gauge.

No. 60,186. Patented Dec. 4, 1866.

Fig. 1.

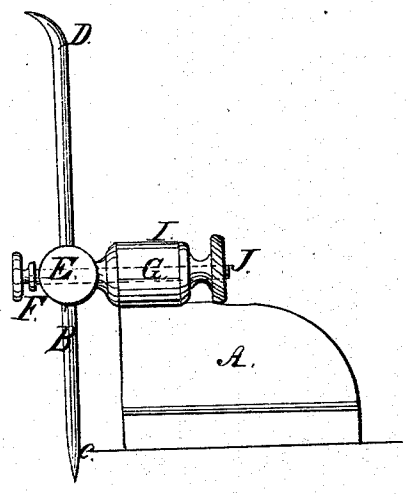
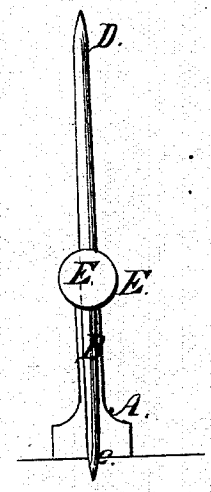


Fig. 2.



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Witnesses:

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United States Patent Office.

IMPROVEMENT IN SURFACE AND DEPTH GAUGES.

R. HATHAWAY, OF CHICOPEE, MASSACHUSETTS.

Letters Patent No. 60,186, *dated December* 4, 1866.

SPECIFICATION.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, RICHMOND HATHAWAY, of Chicopee, Hampden county, State of Massachusetts, have invented a new and improved Surface and Depth Gauge; 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 make and use the same, reference being had to the accompanying drawing, forming part of this specification.

The present invention relates to a new and improved gauge, combining both a surface and depth gauge in one, which gauge is especially intended for machinists' use, although it can be employed to advantage by other mechanics.

In accompanying plate of drawings my improved gauge is illustrated:

Figure 1 being a side view of the same; and

Figure 2, a view of the front end of the same.

Similar letters of reference indicate like parts.

A, in the drawings, represents the holder for the gauge-rod, B, which is pointed or made sharp at one end, *c*, and at its other end, D, bent into a hook shape and also pointed or sharpened. The rod B is passed loosely through the ball E, in which it is fixed or secured by means of a set or thumb-screw, F. This ball, E, by its shaft or spindle, G, is hung in the upper portion, I, of the holder A, passing loosely through it, and with a screw thumb-nut, J, upon its other end, for the purpose of setting or fastening the ball in position upon the holder A. By loosening the set-screw F, by which the gauge-rod B is secured to and in the ball E, it is obvious that the rod can thus be freely drawn into or out of the said ball, and thus made to project or extend below the bottom edge of the holder A, more or less, when, turning the said set-screw in the proper direction, it can be set at any point or extent of projection, whereby, as is apparent, it can be used as a depth gauge, if so desired; and that, furthermore, if the set or thumb-nut J be loosened, the ball having the gauge-rod B fastened in it is then free to be turned in any direction, according as may be desired, in order to produce the necessary scratch or mark upon the surface of the work. When setting the gauge-rod in such position, by tightening the said nut J against the holder, the gauge is then in readiness to be used as desired. By bending one end of the gauge-rod as above described, it is enabled to be used as a surface gauge in positions and upon certain parts of the work where it would be impossible to bring the straight end of the gauge-rod to bear, as, for instance, by reversing the position of the gauge-rod, that is, bringing its bent end below the bottom of its stand or holder, turning its point toward the same, and then drawing the gauge over the work, whereby a line or lines may be scratched or marked parallel to the edge or edges of the same, as is obvious.

I claim as new, and desire to secure by Letters Patent—

The holder A, or its equivalent, in combination with the gauge-rod B, hung in one end of a spindle G, and set-screw F, and thumb-nut J, respectively for the said gauge-rod B, and spindle G, when combined and arranged together, substantially as and for the purpose described.

RICHMOND HATHAWAY.

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