

G. L. WHITEHOUSE.  
LEVELING-RODS.

No. 181,384.

Patented Aug. 22, 1876.

Fig. 1.

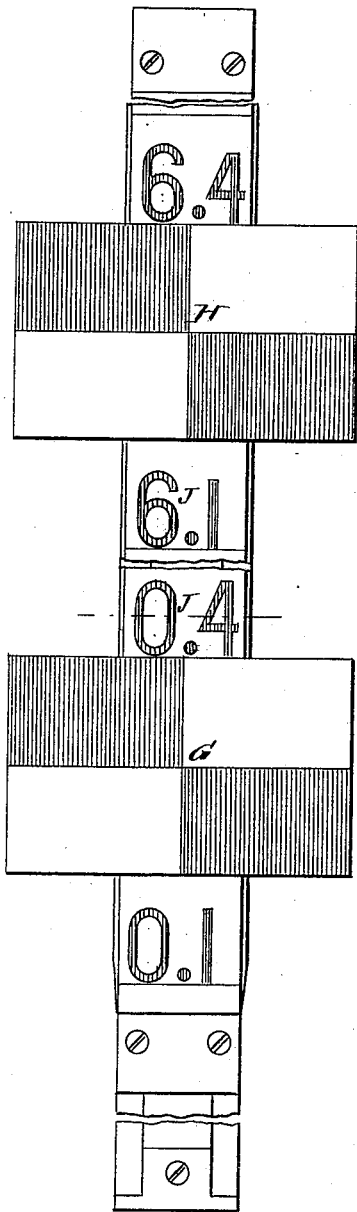


Fig. 2.

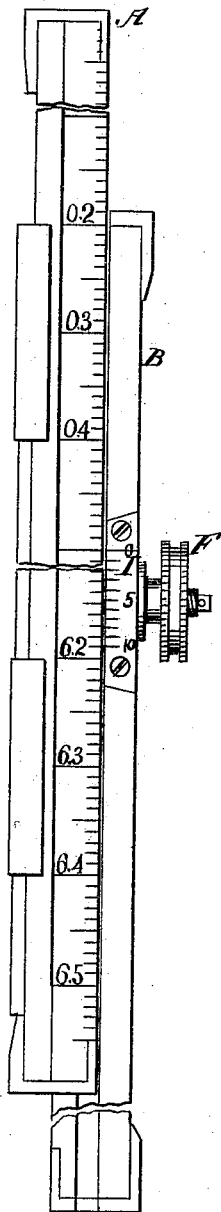
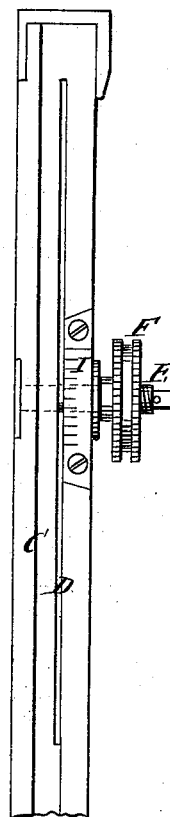


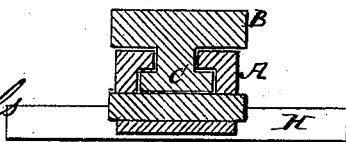
Fig. 3.



WITNESSES:

*E. Wolff*  
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Fig. 4.



INVENTOR:

*G. L. Whitehouse*

BY

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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

GEORGE L. WHITEHOUSE, OF FARMINGTON, NEW HAMPSHIRE.

## IMPROVEMENT IN LEVELING-RODS.

Specification forming part of Letters Patent No. **181,384**, dated August 22, 1876; application filed July 1, 1876.

*To all whom it may concern:*

Be it known that I, GEORGE L. WHITEHOUSE, of Farmington, in the county of Strafford and State of New Hampshire, have invented a new and Improved Leveling-Rod, of which the following is a specification:

The invention will first be fully described in connection with drawing, and then pointed out in the claim.

Figure 1 is a face view of the rod with two targets. Fig. 2 is a side elevation of the rod. Fig. 3 is a side elevation of one of the parts, showing the clamp contrivance, and Fig. 4 is a transverse section, taken on the line *x x* of Fig. 1.

Similar letters of reference indicate corresponding parts.

A represents one part of the rod, and B the other. A has a dovetail or undercut groove in the back, and B has a tongue, C, corresponding to the groove in form, and being fitted into it. Between the tongue C and the main part of B is a long slit, D, and a screw-stud, E, extends from the tongue out through the back part, and has a clamp-nut, F, fitted on it to spring the parts together, and thus clamp them to the part of A between the tongue and the main parts A and B of the

rod together at any point, making a simpler and better contrivance than the outside clamp commonly used.

G and H represent two targets, which I apply to the part A of the rod, the same being in practice six feet apart from center to center, so that by using the upper one for extra heights, and adding six feet to the reading of the scale, these heights are obtained without reversing the rod and shifting the target, as with the common rod.

I is a vernier, together with a scale on the side of the rod, for the rodman to read. The scale I on the face of the rod is large, for the leveler to read.

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

The tongued part B of the rod, having the slit D between the target and the main part, and the clamp-nut F and stud-screw E, in combination with the grooved part A of the rod, substantially as specified.

GEORGE L. WHITEHOUSE.

Witnesses:

STEPHEN NUTTER,  
GEORGE N. EASTMAN.