

S. SANDERSON.
Plumbs and Levels.

No. 143,933.

Patented Oct. 21, 1873.

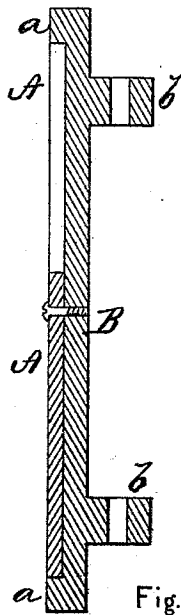


Fig. 1.

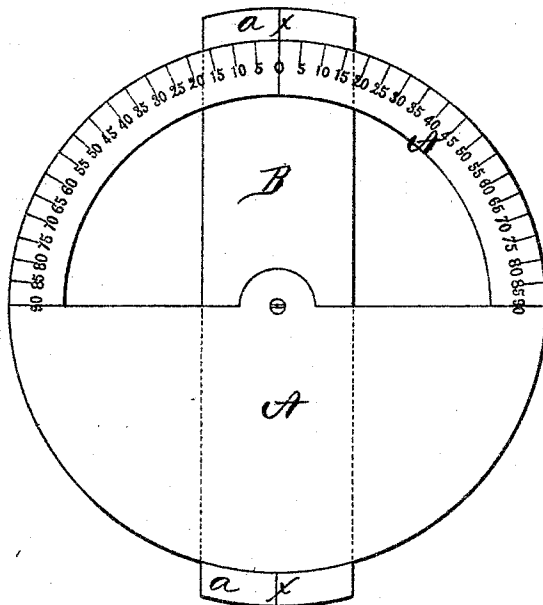


Fig. 2.

INVENTOR.

WITNESSES.

Villette Anderson.

George E. Upham.

Samuel Sanderson,
Chipman & Hornum & Co.,
Attorneys,

UNITED STATES PATENT OFFICE.

SAMUEL SANDERSON, OF NEW BEDFORD, MASSACHUSETTS.

IMPROVEMENT IN PLUMBS AND LEVELS.

Specification forming part of Letters Patent No. **143,933**, dated October 21, 1873; application filed August 9, 1873.

To all whom it may concern:

Be it known that I, SAMUEL SANDERSON, of New Bedford, in the county of Bristol and State of Massachusetts, have invented a new and valuable Improvement in Plumb and Level and Angle Measure; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of my invention in longitudinal section; and Fig. 2 is a plan view of the same.

My invention relates to the class of instruments known as plumbs and levels; and it consists in a dial pivoted in the center, one-half of the dial being solid and the other cut out so as to leave a semicircular bar or rim, which is graduated from the top toward each side. The bar to which the dial is pivoted has projecting flanges at top and bottom to fit over the edge of the dial, and on the back the bar has two lugs so as to be hung on a mule-spindle in a cotton-mill, as will be hereinafter more fully set forth.

Like letters of reference indicate corresponding parts.

A represents a dial pivoted through its center to a straight bar, B, having perfectly par-

allel sides. One-half of the dial is solid, and answers as a weight to keep the dial in a vertical position. The other half of the dial is cut out so as to leave a semicircular rim, which is divided into one hundred and eighty equal parts and marked from the center or top toward each side. The bar B has a flange, *a*, at each end projecting over the edge of the dial. This bar traverses around, the outer edge of the dial indicating, by the marks *xx* in the center of the flanges *a a*, the plumb, level, or angle distance of any object from a straight line in any direction. The bar B has on the back, near each end, a lug, *b*, with a hole through it for hanging the instrument onto a mule-spindle in a cotton-mill, thereby showing the bevel or pitch of the spindle.

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

The combination of the graduated and weighted dial A, and the bar B having flanges *a a*, with marks *xx* and perforated lugs *b b*, all substantially as and for the purposes herein set forth.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

SAMUEL SANDERSON.

Witnesses:

NATHANIEL JENNEY,
LOT B. BATES.