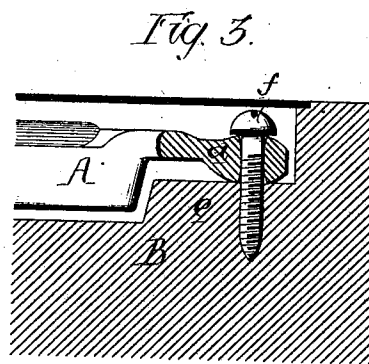
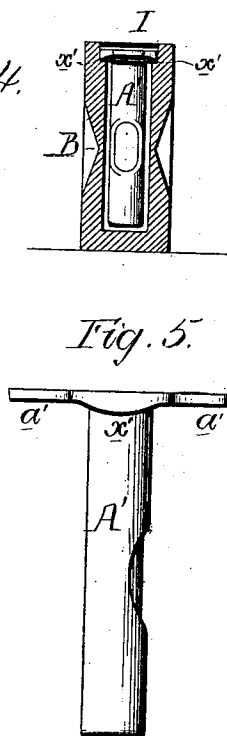
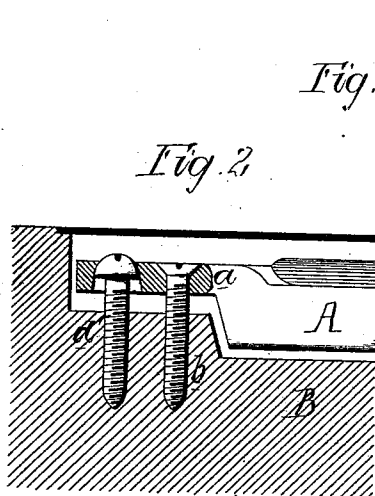
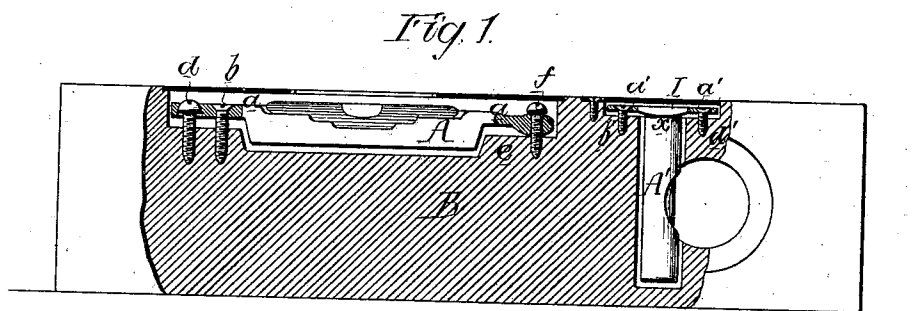


J. MORSS.
Spirit Level and Plumb.

No. 201,276.

Patented March 12, 1878.



Witnesses
Harry A Crawford
Harry Smith

Inventor
Joab Morss
by his Attorneys
Howson and Son

UNITED STATES PATENT OFFICE.

JOAB MORSS, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN SPIRIT-LEVEL AND PLUMB.

Specification forming part of Letters Patent No. **201,276**, dated March 12, 1878; application filed May 7, 1877.

To all whom it may concern:

Be it known that I, JOAB MORSS, of Philadelphia, Pennsylvania, have invented a new and useful Improvement in Spirit-Level and Plumb, of which the following is a specification:

The object of my invention is to construct a spirit-level and plumb which can be readily adjusted and securely locked in position after adjustment—an object which I attain in the manner hereinafter described.

In the accompanying drawing, Figure 1 is a longitudinal section of my spirit-level and plumb; Figs. 2 and 3, views of opposite ends of the level; and Figs. 4 and 5, views showing the construction of the plumb.

A represents the casing carrying the spirit-glass, and B the block in which the same is embedded, as in Fig. 1.

One of the projections *a* of the casing A is enlarged and rounded on top and bottom, and bears on a ledge, *e*, of the block B, being retained firmly in contact therewith by a screw, *f*, the stem of which passes through a slightly-enlarged opening in the projection, so that a limited play of the casing A on the screw is allowed, the curved under side of the projection *a* serving as a pivot. The opposite projection *a* of the casing A has two openings, one beveled from the top and the other from the bottom, and to these openings are adapted the heads of the two screws *b* and *d*, which effect the adjusting and locking of the casing. The head of the screw *b* is beveled and adapted to the opening beveled from the top of the projection *a*, while the head of the screw *d* is rounded, and fits within the opening beveled from the bottom of said projection.

It will be seen that by turning both screws *b* and *d* to the right the end of the casing A

to which they are applied will be depressed, while by turning them to the left said end will be raised, and that when adjusted to the proper position said casing may be securely locked by turning the screw *b* to the right and the screw *d* to the left.

A' represents the case containing the spirit-glass of the plumb-indicator; and this case has at one end a head, I, extending on each side of the case, so as to form two projections, *a' a'*, to which are adapted the adjusting and retaining screws *b' d'*, as shown.

The edges of the head I on each side of the case A' are thickened, so as to form lugs *x'*, which bear on ledges formed in the block B, and form pivots, on which the case is hung.

The above-described plumb and level is simple in its construction, and, owing to the fact that the bearing of the box or casing A on the block B is rigid, while the adjusting-screws act directly on the said box or casing, the adjustment is much more certain and delicate than when the said casing is suspended or adjusted through the medium of springs or spring-arms.

I claim as my invention—

The combination of the block B, having a ledge, *e*, with the casing A, having at one end a rounded projection and retaining-screw, and at the other end an arm, *a*, adjusted and secured by opposing screws *b* and *d*, all substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOAB MORSS.

Witnesses:

HERMANN MOESSNER,
HARRY SMITH.