

No. 807,873.

PATENTED DEC. 19, 1905.

T. O. SHARP.
SPIRIT LEVEL.

APPLICATION FILED APR. 6, 1905.

Fig. 1.

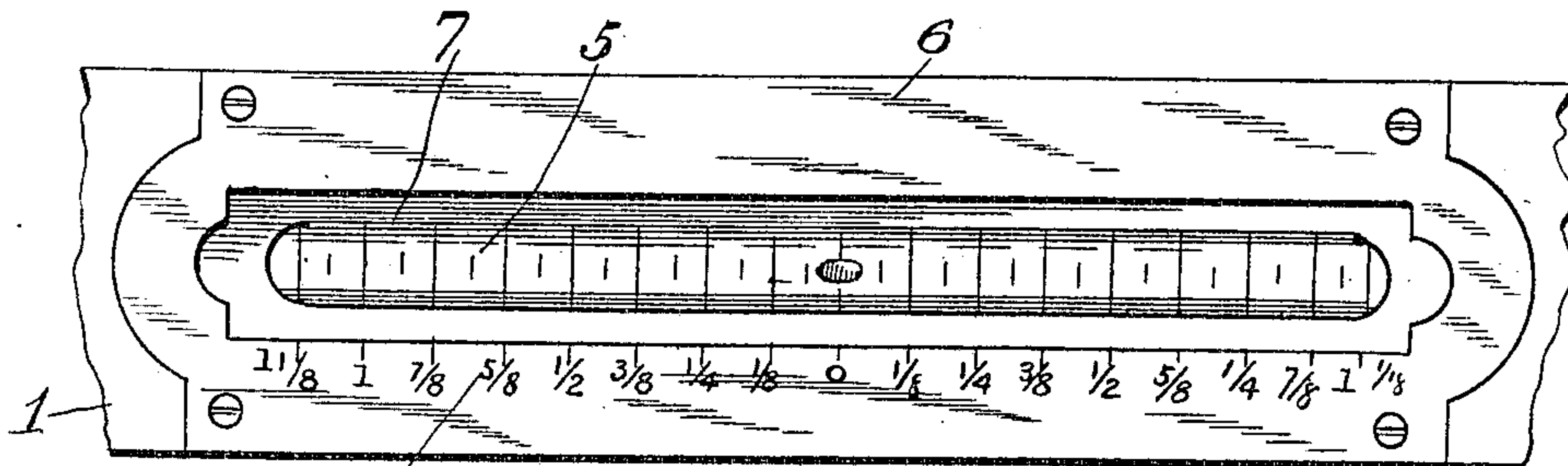


Fig. 2.

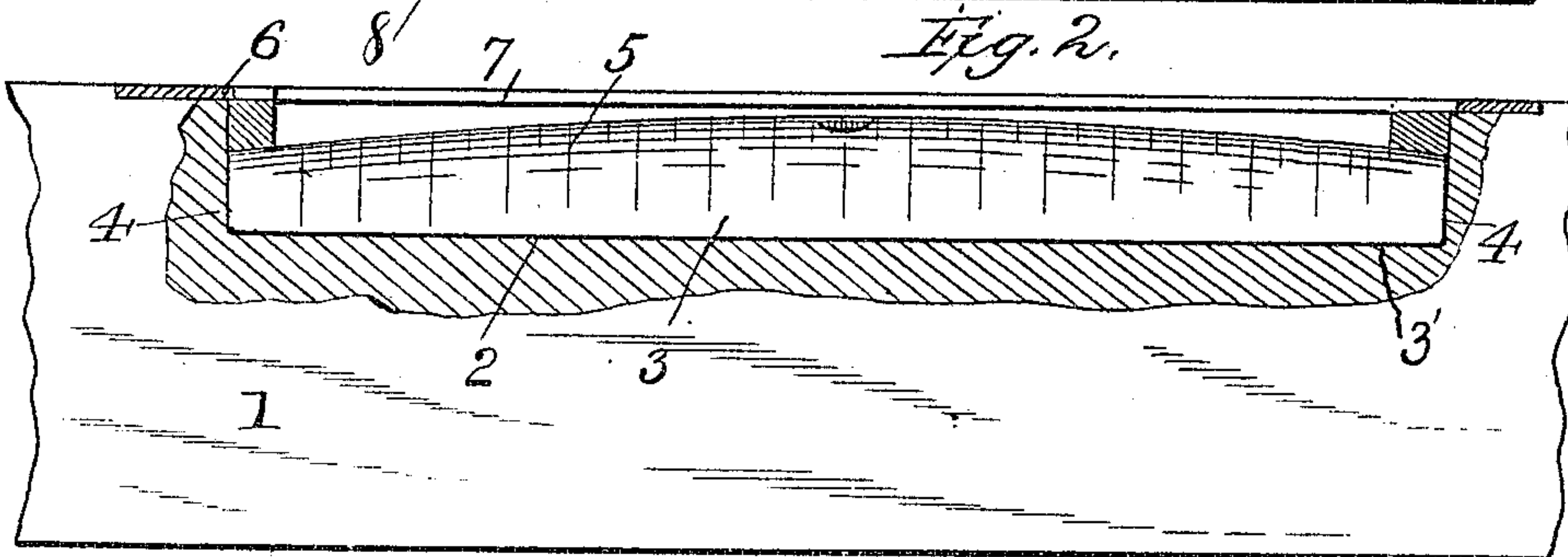


Fig. 3.

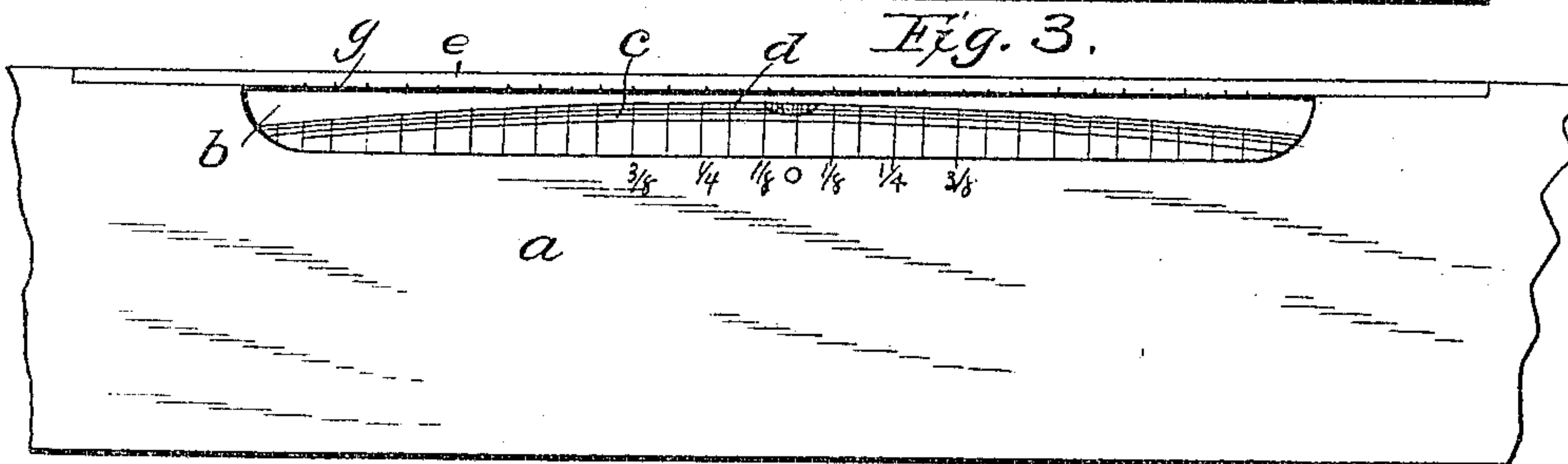
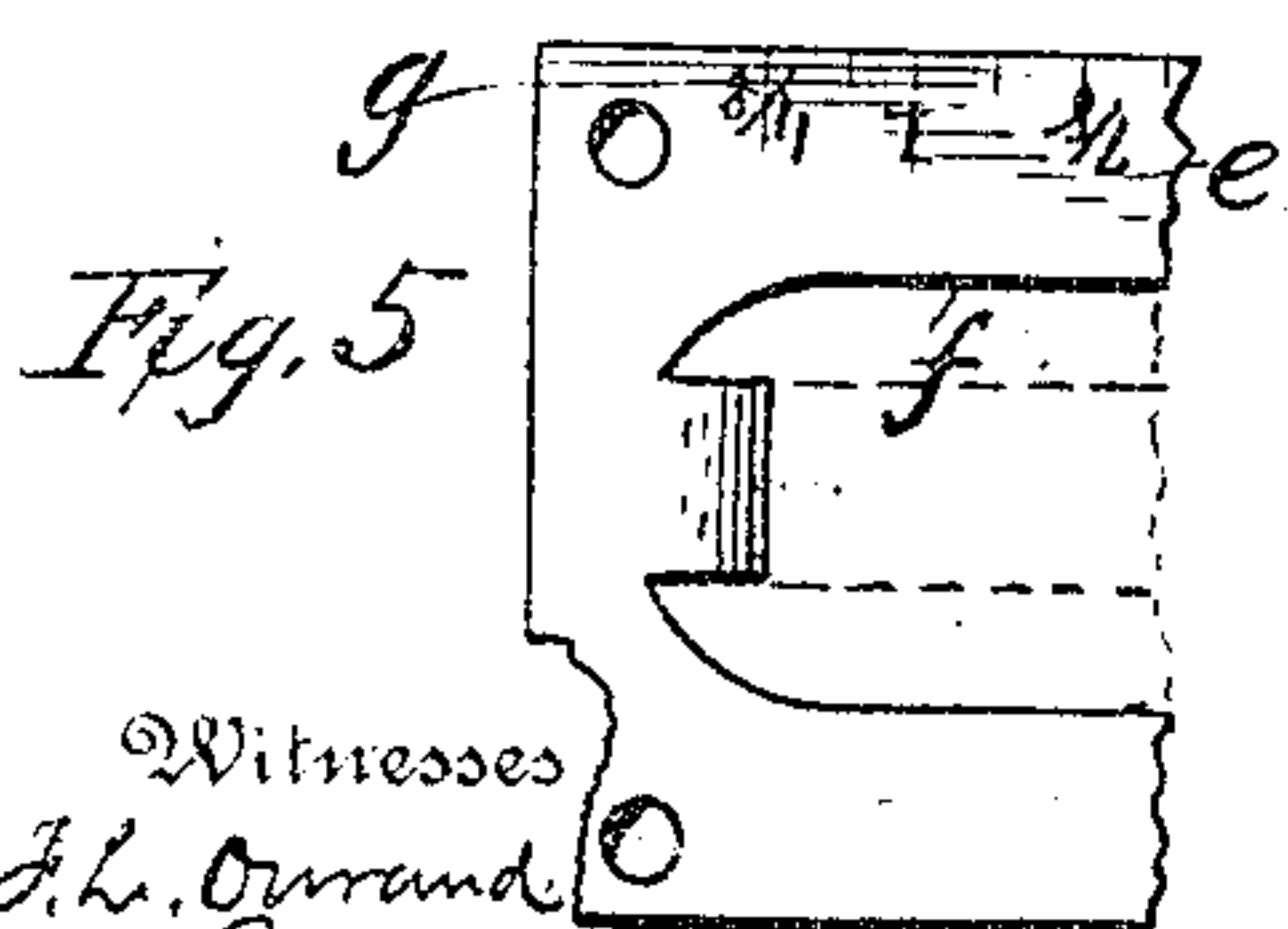
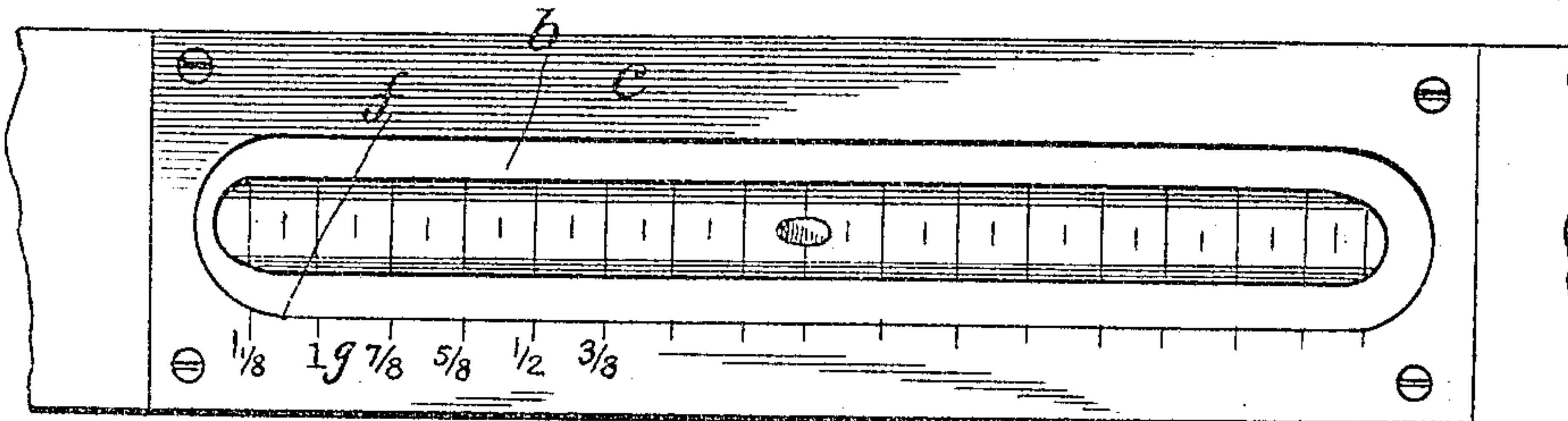


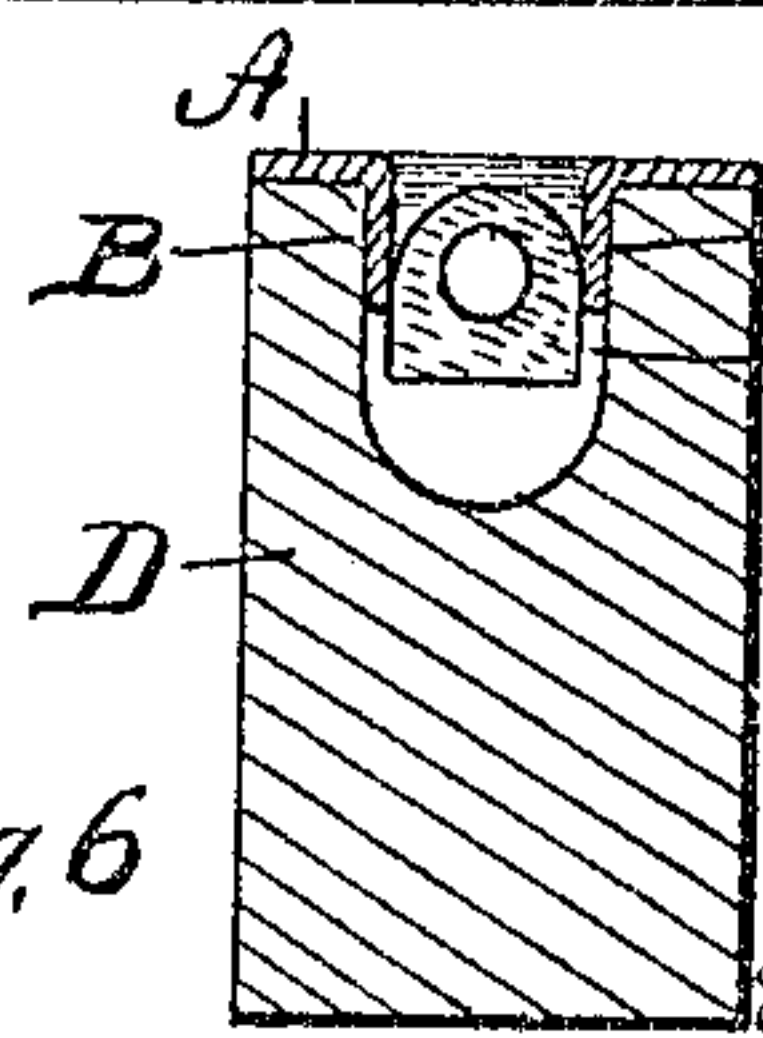
Fig. 4.



Witnesses
J. L. Orrand.

L. E. Parkley.

Fig. 6.



By

Fig. 7.

Inventor

T. O. Sharp,
Attorney

UNITED STATES PATENT OFFICE.

THOMAS OBADIAH SHARP, OF ROXBORO, NORTH CAROLINA, ASSIGNOR
TO SHARP AND TUCKER, OF ROXBORO, NORTH CAROLINA, A CO-
PARTNERSHIP.

SPIRIT-LEVEL.

No. 807,873.

Specification of Letters Patent.

Patented Dec. 19, 1905.

Application filed April 6, 1905. Serial No. 254,192.

To all whom it may concern:

Be it known that I, THOMAS OBADIAH SHARP, a citizen of the United States of America, residing at Roxboro, in the county of Person and State of North Carolina, have invented certain new and useful Improvements in Spirit-Levels, of which the following is a specification.

This invention relates to spirit-levels, and more particularly to that class employed to indicate the incline of a surface being tested.

An object of this invention is to produce a novel device of this character that will be simple in construction, efficient in practice, and economical to manufacture.

With the foregoing and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts, to be hereinafter more fully set forth and claimed.

In describing the invention in detail reference will be had to the accompanying drawings, forming part of this specification, wherein like characters denote corresponding parts in the several views, in which—

Figure 1 is a top plan view of a fragment of a stock with the invention applied thereto. Fig. 2 is a view in elevation partly in section. Fig. 3 is a view in elevation showing a slightly-modified construction. Fig. 4 is a plan view thereof. Fig. 5 is a detail view of a fragment of a face-plate. Fig. 6 is a sectional view taken centrally of the device shown in Fig. 4. Fig. 7 is a sectional view of a fragment of the stock with the invention as modified applied thereto.

In the drawings, 1 indicates a stock of any ordinary or preferred construction having a central elongated pocket 2, in which rests a spirit-tube 3. This tube has a flat undersurface 3', adapted to rest on the bottom of the pocket 2. The upper surface of the tube is curved on a segment of a circle. The ends 4 of the tube are square and bear against the ends of the pocket 2. Any additional means may be employed for holding the tube within the pocket against movement or displacement. The bottom of the pocket 2 is made straight or flat on a horizontal plane. By this arrangement the tube is quickly and accurately applied in position, as it is but necessary to force the flat face of the tube in contact with the bottom of the pocket. This arrangement has been found highly efficient

in practice and may be termed an "essential" feature of the invention. The curved surface of the tube is provided with a series of graduations 5, starting from zero (0) in the center of the surface or at its highest point to either side. The said graduations are the same as lineal measure, on the scale of one inch to the foot.

Above the pocket 2 and suitably attached to the stock 1 is a metal strip 6, having an elongated slot 7, arranged over the spirit-tube when in its applied position. The upper surface of this strip is provided along an edge of its slot with the identifying-numerals 8 of the graduations of the tube. The edge of the slot is also provided with graduations similar to those on the tube in order that in applying the metal strip in position it may be placed accurately with relation to the graduations of the tube.

When the surface on which the stock is resting is level, the air-bubble in the tube will be in the center thereof beneath the character zero, (0). If the surface is not level, the bubble will move to either side, as usual, and the graduation under which it stops will indicate the degree of rise or fall of the wall. For example, if a wall is sixteen feet long and the air-bubble comes to rest under the "one-eighth" graduation the operator will know that one end of the wall is two feet higher than the other, as the scale of graduation is arranged one inch to the foot.

In Fig. 3 is shown a slightly-modified form of the invention. The stock *a* is provided with a transverse recess *b*, in which is secured the spirit-tube *c*, having graduations *d*, extending entirely therearound. Across the recess *b* is arranged a strip *e*, having a slot *f* above the tube when in applied position. Along an edge of the slot *f* on both surfaces are the identifying-numerals *g* of the graduations of the tube. By this arrangement the device can be easily used above or below the level of the eye with equal accuracy.

In Fig. 6 is shown a further modified form. The strip *A* of the stock is provided with transverse tongues *B*, which are cut out from said strip. These tongues are bent to extend within the recess or pocket 6 of the stock *D* and engage the sides of the tube *E* and securely hold the same in its operative position.

The form illustrated in Fig. 7 has tongues *N*, which are bent back upon themselves and

are adapted to bear against the top of the tube O within the recess P of the stock R. These tongues act as a cushion and prevent any upward movement of the tube or any movement of the tube toward the strip.

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

In a device of the character described, a stock having a longitudinal recess, the bottom thereof being on a horizontal plane, a tube within the recess, the under surface of the tube being flattened and adapted to contact with the bottom surface of the recess

the upper surface of said tube being curved, said tube being provided with graduations, a strip arranged above the recess, said strip having graduations coinciding with the graduations of the tube, and means arranged at each end of the longitudinal recess of the stock to hold the tube within said recess.

In testimony whereof I affix my signature, in the presence of two witnesses, this 5th day of April, 1905.

THOS. OBADIAH SHARP.

Witnesses:

A. R. FONSHER,
J. S. BRADSHER.