

(No Model.)

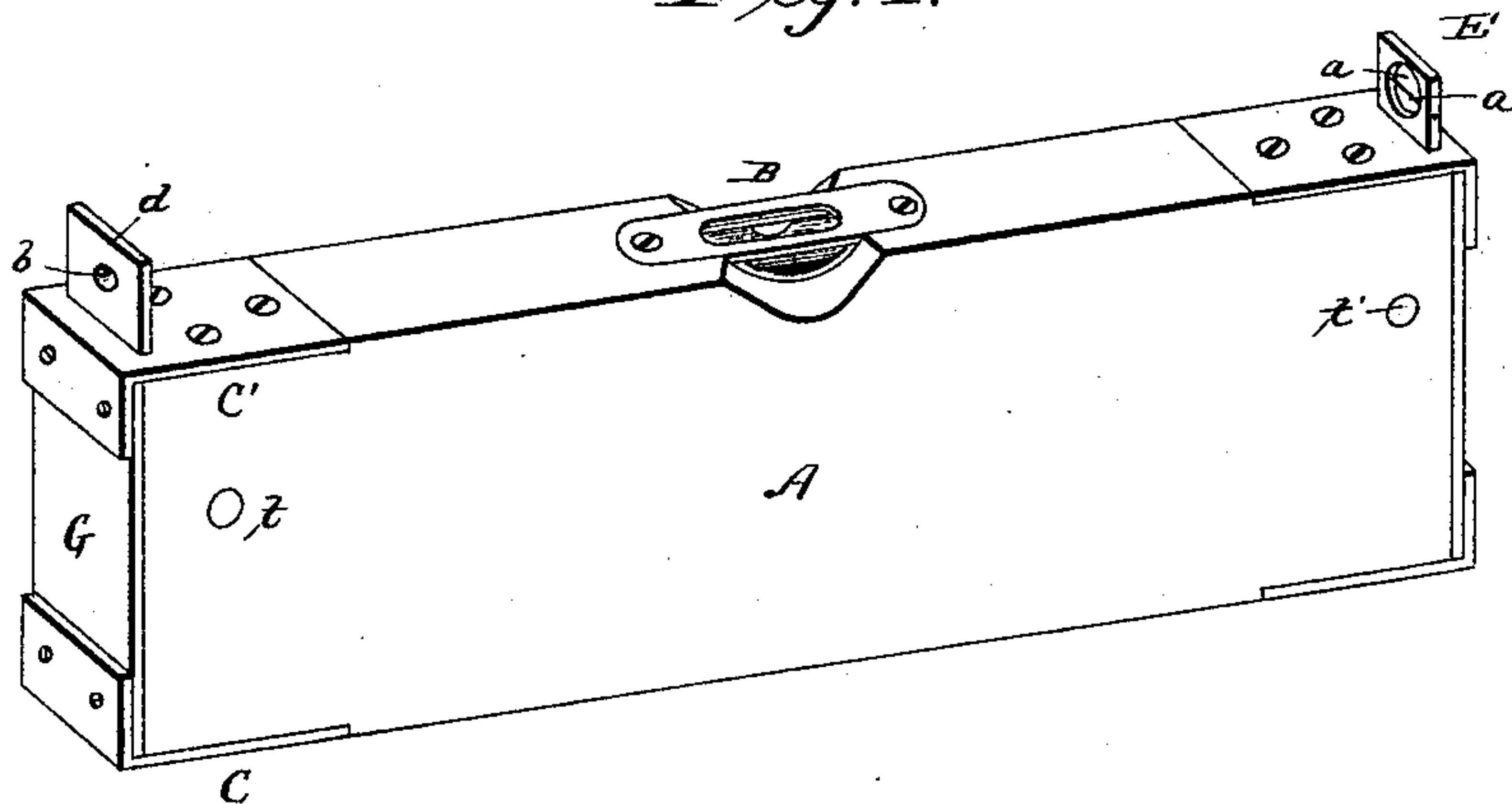
O. D. WOOD.

SPIRIT LEVEL.

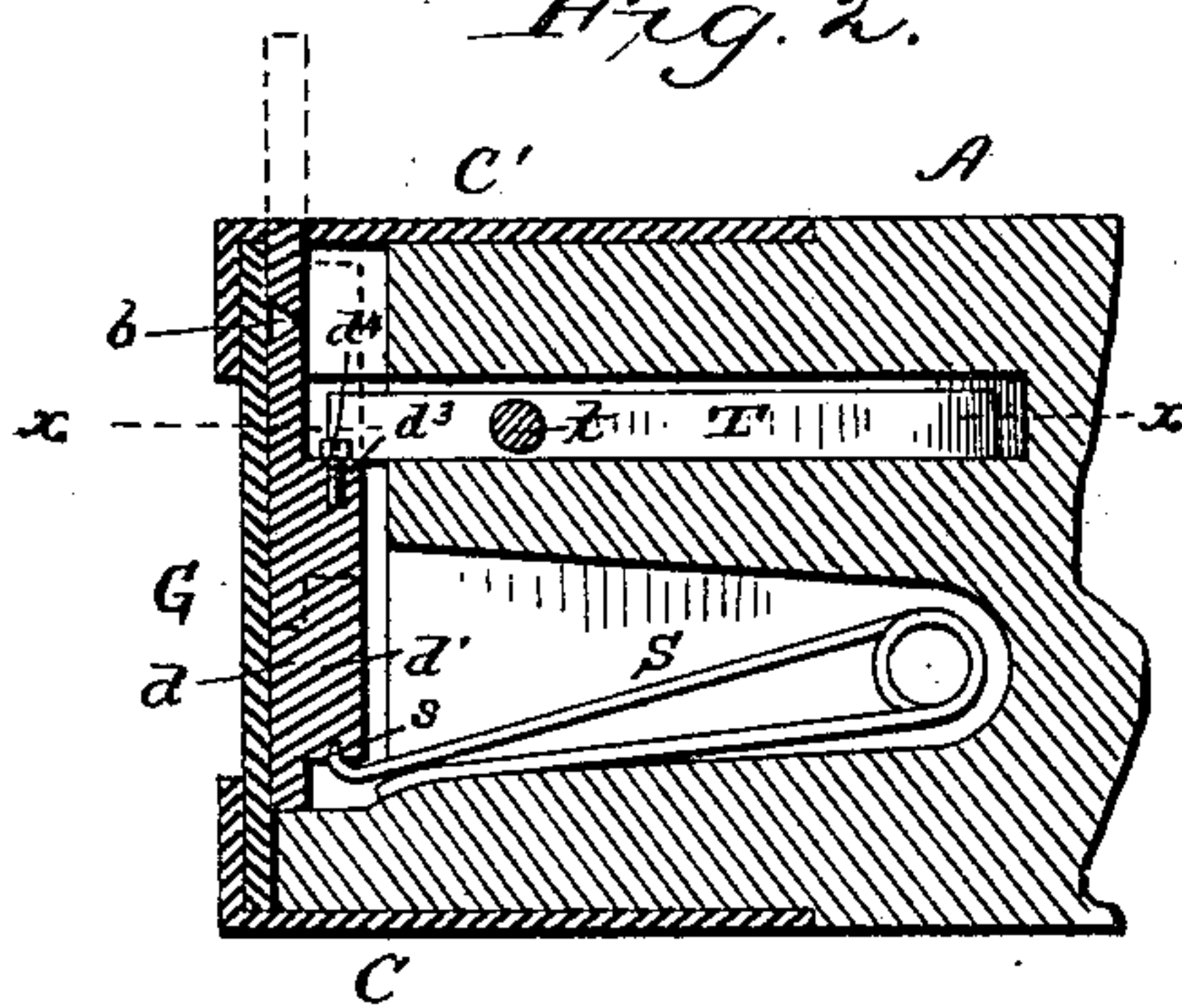
No. 365,033.

Patented June 14, 1887.

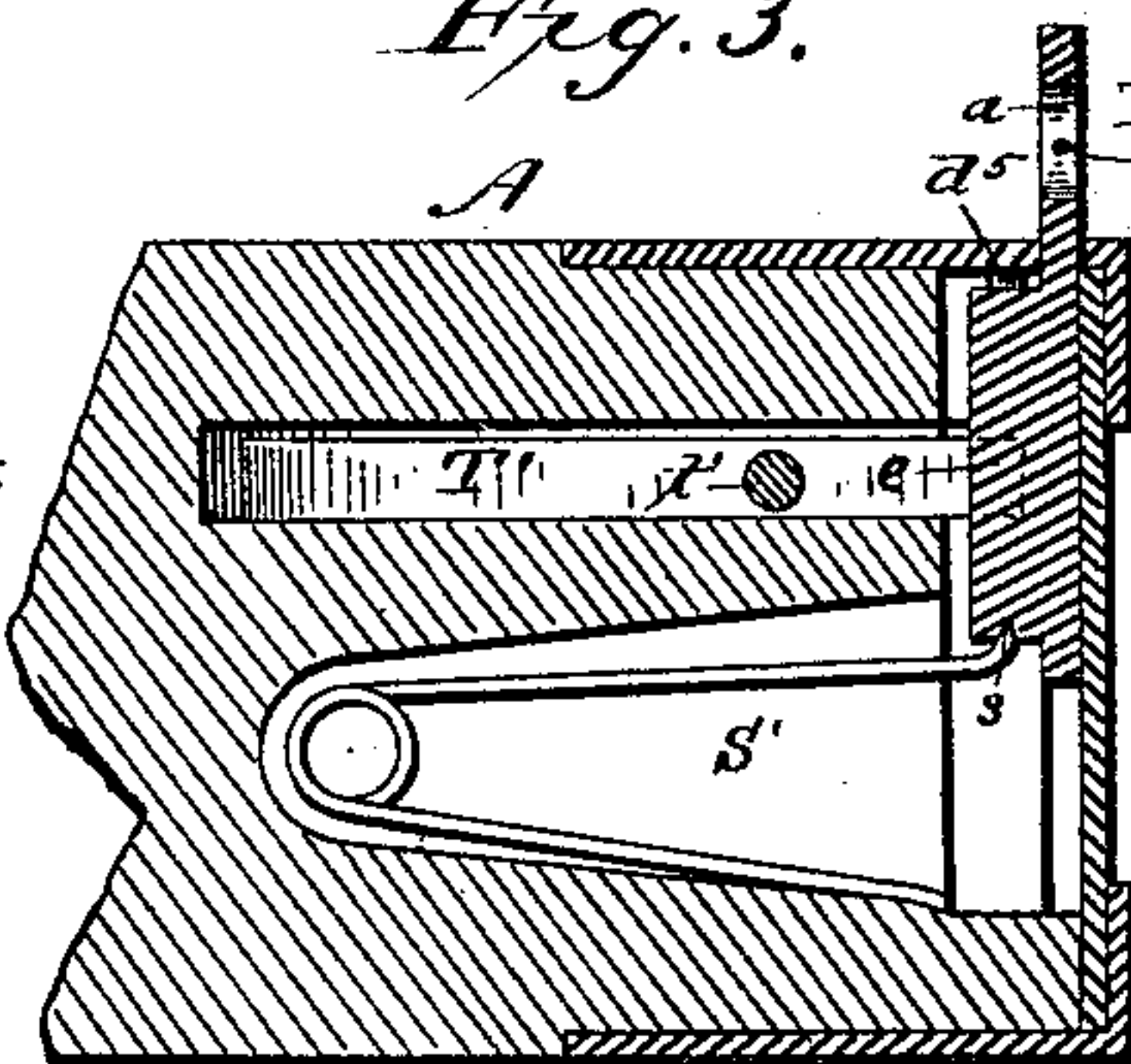
*Fig. 1.*



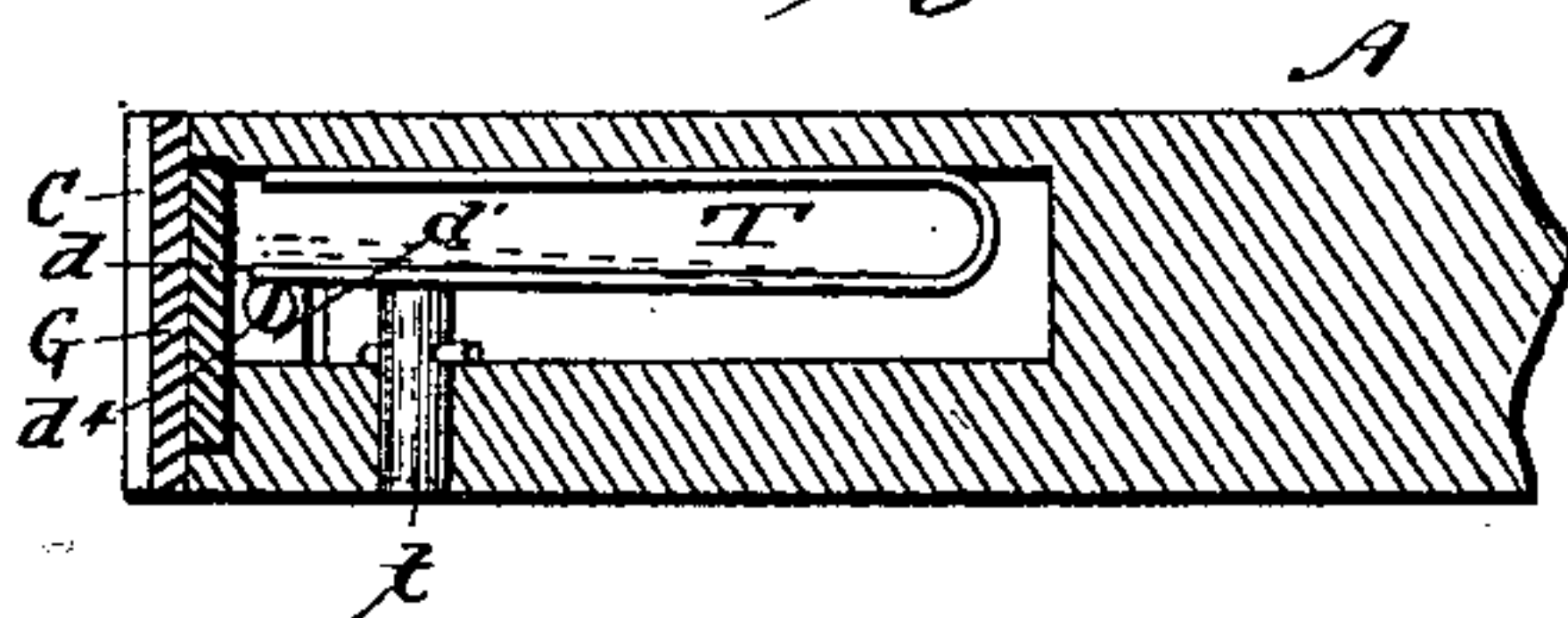
*Fig. 2.*



*Fig. 3.*



*Fig. 4.*



WITNESSES

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INVENTOR

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# UNITED STATES PATENT OFFICE,

OSCAR D. WOOD, OF PASSAIC, NEW JERSEY.

## SPIRIT-LEVEL.

SPECIFICATION forming part of Letters Patent No. 365,033, dated June 14, 1887.

Application filed April 7, 1887. Serial No. 234,002. (No model.)

*To all whom it may concern:*

Be it known that I, OSCAR D. WOOD, a citizen of the United States, residing at Passaic, in the county of Passaic and State of New Jersey, have invented certain new and useful Improvements in Levels, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to an improvement in what is technically known as a "carpenter's" or "mason's" level; and it consists, essentially, in novel means for providing the ends of the stock of the spirit-gage with sight-pieces, whereby when a horizontal line is attained this line can be extended indefinitely, as will be seen from the following description, taken in connection with the annexed drawings, in which—

Figure 1 is a perspective view of a level, showing the eye and string sights elevated for the purpose of projecting a horizontal line. Fig. 2 is a vertical section taken in a longitudinal plane through one end of the stock, showing the eye-piece depressed. Fig. 3 is a similar view of the opposite end of the stock, showing the string-sight elevated. Fig. 4 is a section through Fig. 2, taken in the horizontal plane indicated by dotted line *xx* thereon.

Referring to the annexed drawings by letter, A designates the stock of the well-known mason's level, and B the spirit-level thereof, which may be constructed in the usual well-known manner, the lower edge and the upper edge being parallel and the ends being at right angles to these edges. The spirit-level proper is so adjusted that when the bottom of the stock A indicates a horizontal plane the bubble of air in the glass tube is equidistant from the ends of this tube. The sight end of the stock is faced with angular plates C C' and an intermediate plate, G, which is secured rigidly to the end of the stock by screws, as shown in Fig. 1 of the annexed drawings.

*d* designates the eye or sight piece, which is recessed into the end of the stock in a plane at right angles to the upper and lower edges of the stock A. This sight-piece is provided with a sight-aperture, *b*, equidistant from its vertical edges and near its upper end. The sight-piece is also provided with a rib, *d'*, on its inner side, which serves as a guide and also affords at its lower end an abutment for the

free hooked end of a spring, S, which is applied in a recess formed in the stock A. The object of this spring is to elevate the piece *d*, as indicated in dotted lines, Fig. 1. At the upper end of the rib *d'* is a shoulder, *d''*, into which is tapped an adjusting-screw, *d'''*. The said shoulder is designed to engage with the free end of a U-shaped spring, T, provided with a finger-key, *t*, which passes laterally through the stock A. When the piece *d* is depressed to leave the top of the instrument clear, the free end of said U-shaped spring will engage with the upper end of the rib *d'* and hold said piece depressed, as indicated in full lines, Fig. 2. By simply pressing on the finger-key *t* the spring T is freed from the sight-piece *d*, and spring S will protrude this piece *d* beyond the upper surface of the stock A, as shown in Fig. 1.

One of the essential features of my invention consists in providing for accurately adjusting the position of the eye-aperture *b* with respect to the string or hair *a'* of the sight E. This is effected by adjusting the screw *d'''*, which abuts against the upper angle-plate, C', when the eye-sight *d* is up. By adjusting this screw, and also a similar screw, *d''''*, (shown in Fig. 3,) the line of sight can be made exactly parallel with the upper edge of the stock A, so that when the spirit-level indicates horizontal the line of sight will be horizontal. The hair or string sight-piece E, its springs S' T', finger-key *t'*, ribs *e*, and adjusting-screw *d''''*, as illustrated by Fig. 3, are or may be all constructed precisely like the parts above described at the upper end of the stock, with the following exceptions: The aperture *a* through the piece E is larger than the eye sight aperture *b* through the piece *d*, and transversely across this aperture *a* is the hair or string sight *a'*.

It will be observed that when the two sight-pieces are depressed the instrument can be used as any well-known mason's level, and that when both sides are protruded, as shown in Fig. 1, the instrument not only serves as a level, but it is useful for projecting horizontal lines and establishing other levels.

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

1. The combination, with the stock A and its spirit-level, of sight-pieces ribbed inter-

nally and provided with adjustable screws on the upper ends of the ribs, the angle-plates secured to the stock, and the lifting-springs and latching-springs recessed into said stock, substantially as described.

2. In combination with a level-stock provided with the usual spirit-tube, and angle-plates secured on the upper corners of the said level-stock and provided with apertures, of

the spring-actuated sight-pieces set in recesses in the level-stock and provided with shoulders or ribs, as and for the purposes described.

In testimony whereof I affix my signature in presence of two witnesses.

OSCAR D. WOOD.

Witnesses:

J. E. STOUTENBURGH,  
LEONARD L. GREAR.