

No. 883,659.

PATENTED MAR. 31, 1908.

T. J. MAHONEY.  
SPIRIT LEVEL.

APPLICATION FILED JULY 11, 1907.

Fig. 1.

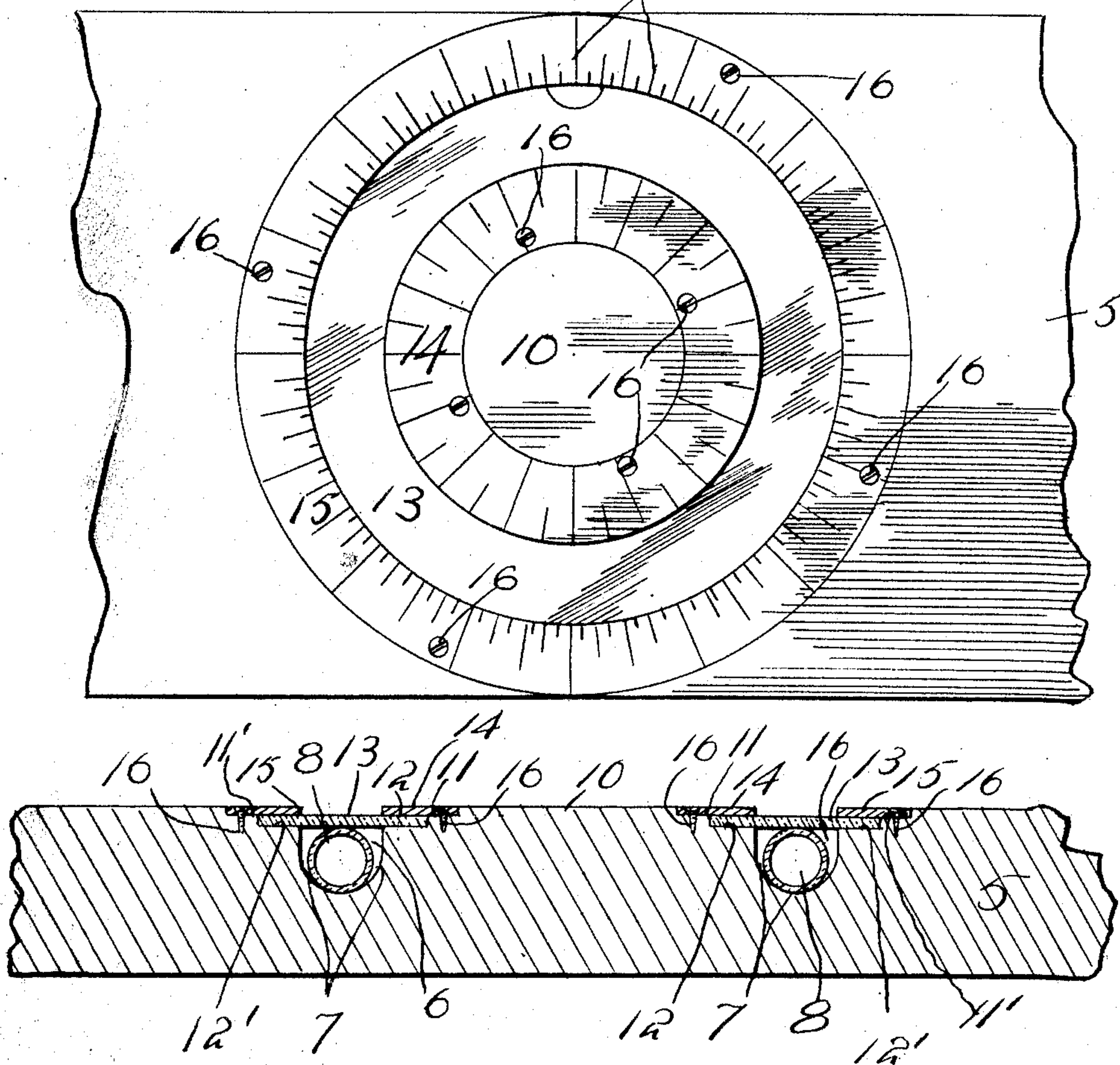


Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## SPIRIT-LEVEL.

No. 883,659.

Specification of Letters Patent.

Patented March 31, 1908.

Application filed July 11, 1907. Serial No. 383,205.

*To all whom it may concern:*

Be it known that I, THOMAS J. MAHONEY, a citizen of the United States, residing at Hot Springs, in the county of Garland, State of Arkansas, have invented certain new and useful Improvements in Spirit-Levels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to new and useful improvements in spirit levels, and it has particular reference to a spirit level of that type which includes an annular spirit tube and in connection with which an annular gage and other adjuncts are employed.

The invention aims as a primary object to provide means for mounting the tube in the wood stock, such means including as an element the gage above-referred to.

The invention aims as a further object to provide a novel construction, combination and arrangement of parts the details of which will appear in the course of the following description in which reference is had to the accompanying drawings forming a part of this specification, like characters of reference designating similar parts throughout the several views, wherein;

Figure 1 is a top plan view of a level constructed in accordance with the present invention, Fig. 2 is a central longitudinal sectional view thereof.

The numeral 5 designates the stock of the level, which at a central point is formed with an annular recess 6, having its base curved concavely as at 7, to afford a seating for the spirit tube 8. Within the confines of the recess 6, the stock 5 is formed with a central raised portion 10, the outer wall of which is formed with concentric upper and lower steps 11 and 12. Similar steps 11' and 12' are formed to surround the outer edge of the recess 6. An annular glass plate 13 is imposed upon the steps 12 and 12' to hold the tube 8 against displacement and at the same time to permit of the visibility of its contents. The glass plate 13 is, in turn, held from displacement by an inner metallic ring 14, imposed upon the step 11 and by an outer metallic ring 15 imposed upon the step 11'. The rings 14 and 15 partially

overlie the plate 13 and have their mutually adjacent edges spaced. Said rings are flush with the surface of the stock 5 and are held by fastening screws 16. It is preferred to calibrate the ring 15 as at 17 whereby the same may serve as a gage to clearly indicate all cardinal points and fractions. The invention is thus adapted for use as a level, a plumb, or an inclinometer. The rings 14 and 15 may be readily removed and the tube 8 inserted or displaced should any occasion for its removal arise. The rings 14 and 15 aside from their function of holding the plate 13 against displacement, serve as a dust-guard and as a protection against blows.

The invention is simple in its structural details, inexpensive to manufacture, and practical and efficient in use.

From the foregoing description it will be seen that simple and efficient means are provided for accomplishing the objects of the invention, but, while the elements herein shown and described are well adapted to serve the functions set forth, it is obvious that various minor changes may be made in the proportions, shape, and arrangement of the several parts without departing from the spirit and scope of the invention as defined in the appended claims.

What is claimed, is,

A device of the type set forth, comprising a stock formed with an annular recess defining a central raised portion having its edge portion formed with upper and lower steps, the face of the stock adjacent the outer edge of the recess being formed with upper and lower steps, an annular spirit tube disposed within the recess, an annular transparent plate imposed upon the lower steps and bridging the recess, and spaced concentric metallic rings imposed upon corresponding upper steps and secured to the stop, said rings partially overlying and confining the transparent plate, one of said rings being calibrated.

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

THOMAS J. MAHONEY.

Witnesses:

WM. EGBERT,  
W. M. DODSON.