No. 886,333. PATENTED APR. 28, 1908.

D. H. SOUTHWARD.

ATTACHMENT FOR LEVELS.

APPLICATION FILED JULY 18, 1907.

Fig. 3.

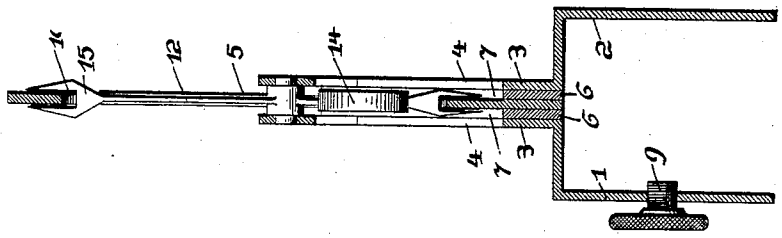


Fig. 2.

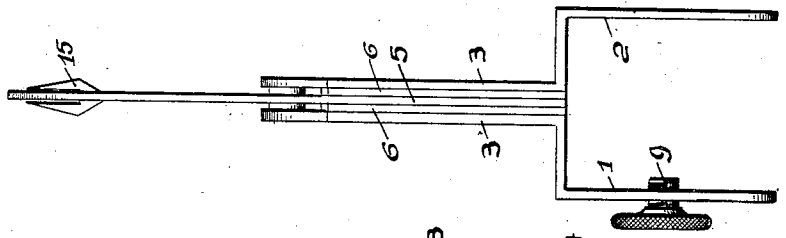
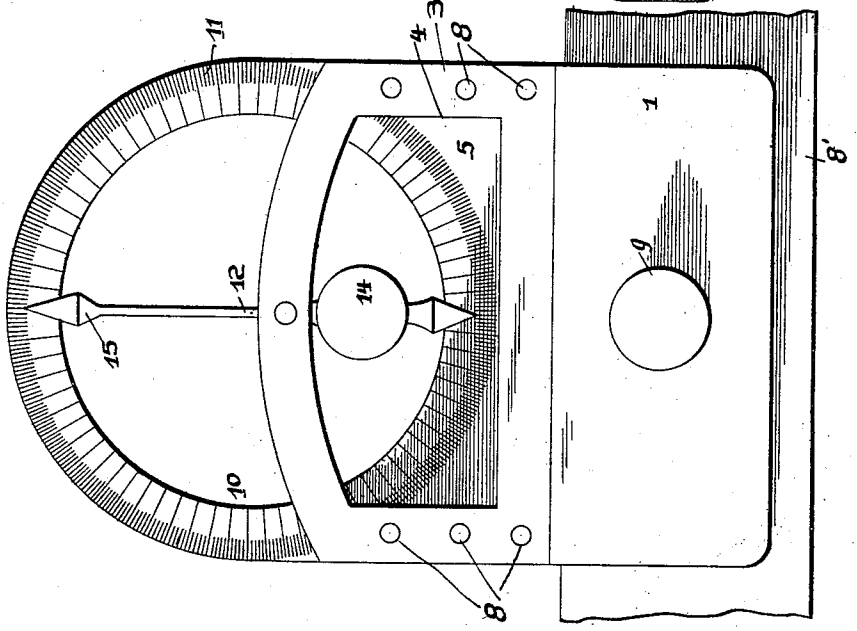


Fig. 1.



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ATTACHMENT FOR LEVELS.

No. 886,333. Specification of Letters Patent. Patented April 28, 1908.

Application filed July 18, 1907. Serial No. 384,462.

To all whom it may concern:

Be it known that I, DAVID H. SOUTHWARD, a citizen of the United States of America, residing at Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Attachments for Levels, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to attachments for levels, straight edges, and similar instruments, the invention having for its primary object to provide an attachment for determining the angularity or inclination of a level with respect to a horizontal plane.

Another object of this invention is to dispense with the use of a plumb bob for determining the line of gravity.

A further object of this invention is to provide a novel device for accurately determining the inclination of a surface with relation to a horizontal surface.

A still further object of this invention is to provide a simple and inexpensive level attachment that can be easily and quickly secured to an ordinary level or straight edge.

With these and other objects in view, which will more readily appear as the invention is better understood, the same consists in the novel construction, combination and arrangement of parts to be hereinafter more fully described and then specifically pointed out in the appended claims.

Referring to the drawing forming part of this application, like numerals of reference designate corresponding parts throughout the several views, in which:—

Figure 1 is a side elevation of my improved attachment as secured to a portion of the level, Fig. 2 is an end view of the attachment, Fig. 3 is a vertical sectional view.

My improved level attachment is constructed of light and durable metal and consists of two angular plates 1 and 2 having upwardly extending parallel frames 3, said frames having sight openings 4. The frames 3 are spaced apart by a central plate 5 and side plates 6, said side plate being cut away, as at 7 whereby the central plate 5 can be observed through the sight opening 4 of the frames 3. The frames 3 and plates 5 and 6 are connected together by rivets 8 or similar fastening means.

The plates 1 and 2 are adapted to embrace the opposite sides of the level 8′ to position the said plate 5 at substantially the central point of the edge of a level. To secure said plates to said level I provide the plate 1 with a set screw 9 adapted to bind the attachment upon a level.

The upper edge of the central plate 5 is semi-circular and said plate is provided with a central circular opening 10, the edges of which upon both sides of said central plate are graduated, as at 11 to represent the degrees of a complete circle.

Between the frames 3, which bridge the opening 10 of the central plate 5, is trunnioned an indicator 12, the shorter arm of which is weighted, as at 14. Both arms of the indicator are provided with bifurcated spear-shaped pointers 15 adapted to embrace the sides of the plate 5 surrounding the opening 10.

It is apparent from the novel construction of my improved level attachment that the number of degrees of the inclination of a body or surface can be readily determined with precision.

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

A level attachment consisting of two plates adapted to embrace a level and having upward extensions forming parallel frames, a set screw carried by one of said plates, a central plate arranged between said frames and adapted to be centrally positioned upon one side of a level, side plates interposed between said central plate and said frames, said central plate having a circular opening formed therein and graduations arranged in a complete circle around said opening upon each side of said plate, a weighted indicator trunnioned between said frames within the circular opening of said central plate and having bifurcated spear-shaped pointers at each end thereof.

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

DAVID H. SOUTHWARD.

Witnesses:
K. H. BUTLER,
MAX H. SROLOVITZ.