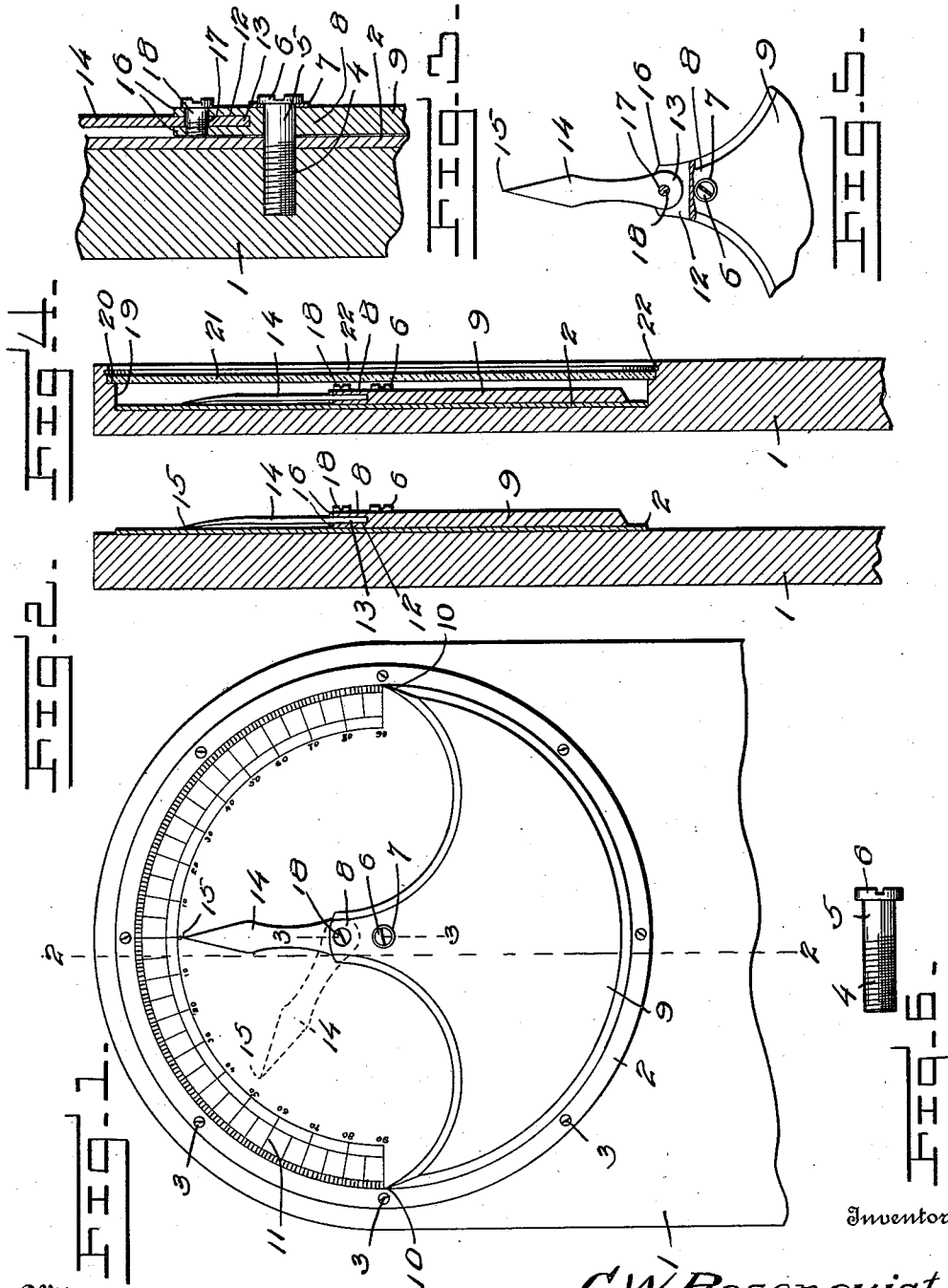


C. W. ROSENQUIST.
LEVEL.
APPLICATION FILED MAR. 23, 1911.

1,008,732.

Patented Nov. 14, 1911.



Witnesses
L. L. Armstrong
M. L. Neal

C. W. Rosenquist,
By Harry Ellis Chandlee,
Attorney

UNITED STATES PATENT OFFICE.

CLARD W. ROSENQUIST, OF ROSE CITY, MICHIGAN.

LEVEL.

1,008,732.

Specification of Letters Patent.

Patented Nov. 14, 1911.

Application filed March 23, 1911. Serial No. 616,315.

To all whom it may concern:

Be it known that I, CLARD WILLIAM ROSENQUIST, a citizen of the United States, residing at Rose City, in the county of Ogemaw and State of Michigan, have invented certain new and useful Improvements in Levels, of which the following is a specification.

My invention relates to improvements in levels, and has for its leading object the provision of an improved device which may be readily secured to a straight edge and which will provide an efficient plumb level adapted for use in determining either vertical or horizontal angles.

A further object of the invention is the provision of an improved device for attachment to a straight edge, which device may be readily adjusted to cause the pointer thereof to lie in alinement with the zero mark of the scale of the device when the straight edge is either in a horizontal position or inclined at the desired angle.

Other objects and advantages of my improved level will be apparent from the following description taken in connection with the drawings, and it will be understood that I may make any changes or modifications in the construction shown and described within the scope of the claims without departing from or exceeding the spirit of the invention.

Figure 1 represents a front view of my improved device secured to a straight edge. Fig. 2 represents a sectional view on the line 2—2 of Fig. 1. Fig. 3 represents a vertical sectional view on the line 3—3 of Fig. 1. Fig. 4 represents a sectional view of a slightly modified construction of the invention. Fig. 5 represents a detailed view of the pointer and supporting neck with the front portion of the level broken away, and Fig. 6 represents a detailed view of the pivot screw for the device.

In the drawings, the numeral 1 designates an ordinary wooden straight edge to which is secured the circular plate 2 of my device by the screws 3 which pass through the plate 2 and have their points engaged in the block 1. Passing centrally through the plate 2 is the pivot screw having the threaded end 4 with the intermediate unthreaded rounded portion 5 terminating in the head 6, while mounted upon the rounded portion 5 is a washer 7 having bearing against its outer face the neck portion 8 of the substantially

semi-circular weight or plumb bob portion 9, said portion having its edges terminating in the points 10 which are disposed at opposite ends of the horizontal diameter passing through the pivot screw, as is clearly shown in Fig. 1. It will thus be seen that the member 9 has its sides equally balanced and when the straight edge is in level position the neck 8 will lie in a vertical position with the diameter which passes through the points 10 in a horizontal position. To determine the exact position of the plumb with reference to the straight edge, I form on the disk 2 the dividing graduations or degree marks 11 so disposed that the zero mark is at the center of the upper edge of the disk in vertical alinement with the pivot screw, while the 90° marks are at the centers of the sides, the points 10 extending just to the 90° marks. To indicate the amount of deviation of the straight edge from exact horizontal position, I form in the neck the vertical transversely extending slot 12 in which is engaged the lower end 13 of the pointer 14 which projects upwardly from the neck and has its point 15 adapted to coincide with one of the degree marks. To secure the pointer to point to the zero mark when the level is in horizontal position, or to permit of the adjustment of the pointer, whereby the same will point to the zero mark when the straight edge is inclined at any desired angle, I pass through the furcations 16 of the neck 8 and through the aperture 17 in the lower end of the pointer the screw 18 having its end threaded and engaged in the rear furcation, whereby the turning of said screw forces the furcations together into clamping engagement with the enlarged lower end 13 of the pointer to lock the pointer immovably to the pivoted plumb.

In the modified form of my invention, I have shown the straight edge 1 as formed with the recess 19 into which my device fits, said recess having a shouldered portion 20 against which the glass 21 rests, said glass being retained in any suitable manner, as by the spring clamping ring 22 which may be removed to permit of the adjustment of the pointer, the device being thus protected from dirt in the atmosphere and being capable of slightly more delicate adjustment and operation.

From the foregoing description taken in connection with the drawings, the construction of my improved attachment for straight

edges will be readily understood, and it will be seen that I have provided an extremely simple and inexpensive plumb device for attachment to a straight edge of the highest efficiency having an improved adjustable pointer secured thereto for indicating the deviation of the straight edge from horizontal or vertical position, the plumb and indicating pointer being mounted for complete rotation, whereby the straight edge may be placed against either vertical or horizontal beams to determine whether they are in level or vertical position, the points 10 serving in connection with the degree marks 11 to indicate the deviation from the vertical position, and the pointer to indicate the deviation from the horizontal position. It will further be observed that I have provided improved means for determining the correct positioning of the adjustable pointer, in that when the points 10 coincide with the 90° marks the pointer should exactly coincide with the zero mark and if it does not it can be readily corrected.

25 I claim:

1. The combination with a straight edge, of a graduated circular plate secured thereto, a screw passing through the center of the

plate, a plumb device having a reduced neck pivotally engaged on the screw, the upper 30 end of the neck above the screw having a transverse vertical slot formed therein, a pointer having its lower end fitting in the said slot and adapted to coincide with any one of the graduations of the plate, and 35 means for clamping the furcations of the neck provided by the slot together to tightly secure the pointer in adjusted position.

2. The combination with a straight edge, of a graduated plate secured thereto, a pivot 40 screw passing through the plate and engaged in the straight edge, a plumb device pivotally mounted on the screw and having a neck projecting upward from the screw, said neck having a bifurcated upper end, a 45 pointer engaged between the furcations of the neck, and a screw passing through the pointer and said furcations to clamp the furcations against the pointer to prevent independent rotation of the pointer. 50

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

CLARD W. ROSENQUIST.

Witnesses:

E. R. CHAPIN,

C. B. KAUBER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."