

W. MOORE.
PLUMB AND LEVEL.

Patented Aug. 13, 1895.

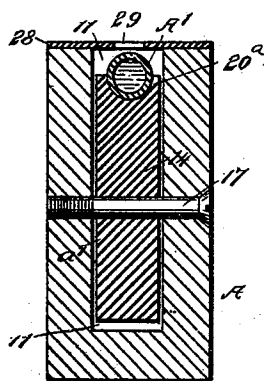


Fig. 4

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PLUMB AND LEVEL.

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To all whom it may concern:

Be it known that I, WILLIAM MOORE, of Long Island City, in the county of Queens and State of New York, have invented a new and useful Plumb and Level, of which the following is a full, clear, and exact description.

My invention relates to an improvement in plumbs and levels; and it has for its object to provide a tool of this character in which both the plumb and the level tubes may be adjusted simultaneously by the movement of a single screw, and whereby the glasses will be so set that they will maintain their adjustment for a maximum of time.

Another object of the invention is to provide for the construction of a plumb and level which will be simple, durable, and economic, and furthermore to so locate the plumb and level glasses that the tool may be used conveniently either in plumbing work below or above the operator.

Another object of the invention is to provide a means whereby the plumb and level glasses will be virtually one, but wherein partitions will be employed which will render the plumb and level compartments in the aforesaid continuous glass independent.

The invention consists in the novel construction and combination of the several parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a perspective view of the tool. Fig. 2 is a longitudinal vertical section through the tool. Fig. 3 is a transverse section taken substantially on the line 3 3 of Fig. 2; and Fig. 4 is a sectional view through the combined plumb-and-level glass, illustrating a modification in the manner of separating the several compartments therein.

In carrying out the invention the body A of the tool may be and preferably is of the usual construction; but the plumb-openings 10 are located usually at one end of the body, as shown in Fig. 1. Between the plumb-openings 10 a chamber 11 is formed in the body of the tool, having an offset 12 at its center,

whereby the said chamber is deepest at each side of the aforesaid offset. This chamber extends through the upper face of the tool, 55 but a predetermined amount of material separates it from the bottom. Within the said chamber 11 a block 14 is loosely fitted, and this block conforms substantially to the contour of the chamber, but is of less size. 60 The block comprises a body *a* and two legs *a'* projected from the body, the said legs being adapted to enter the deeper portions of the chamber 11 in the tool. A spring 15 is entered into a suitable recess 16 in the body 65 portion of the block and in a corresponding recess 16^a made in the partition 12 in the bottom of the aforesaid chamber. The block, which may be of metal or other material, metal being preferred, is pivoted in the 70 aforesaid chamber through the medium of a pin 17, which is passed through one of the legs and through the body of the tool, as shown in Fig. 2, while in the other leg, if the block is made of metal, an opening 18 is made, 75 and a threaded aperture 19 is carried through the bottom portion of this leg into the said opening to receive an adjusting-screw 20, which is entered into the body of the tool at the bottom thereof, but if the block is made 80 of wood a nut will be substituted for the said recess 18. The block is provided with a marginal preferably concaved recess 20^a, which extends from the bottom of each limb or leg upward and across the upper face of the body 85 of the block. This recess is adapted to receive the water-glass A', and the glass is substantially of inverted-U shape and fits snugly into the said groove or channel 20^a in the block, being held in connection therewith by 90 means of straps 21, or the equivalent thereof.

The glass is preferably divided into three compartments—a level-compartment 22 and two plumb-compartment 23—and the division is effected by means of partitions 24 located 95 at or near the legs or limbs of the glass. The partitions 24 may be formed integral with the glass and may be of the same material, or the said partitions may consist of cork or other form of stoppers 25, as shown in Fig. 4, and 100 the lower ends of the limbs or legs may be drawn together and closed in that manner, as shown in Fig. 2, or they may be sealed by means of stoppers 26, as illustrated in Fig. 4,

and when the water-glass is made as shown in Fig. 2 a neck 27 is formed in the bottom of the level-compartment at one end, through which the fluid to be contained in the said compartment is to be introduced, and this neck is closed by drawing together the walls of its mouth in the same manner as the terminals of the legs or limbs of the glass.

The upper end of the chamber 11, in which the working parts of the tool are located, is normally closed by means of a face-plate 28, having a suitable opening 29 therein, exposing the central portion of the level-compartment of the water-glass, and the legs or plumb-compartments of this glass pass through the plumb-openings 10 in the tool in the usual manner.

It will thus be observed that the tool is not only economically and durably constructed, but that with the adjustment of only one screw 20 the entire block will be so adjusted that the drop may be brought to proper position when the tool has been placed on a plumb or level surface. In fact, by placing the tool on a plumb-surface and regulating the drop at the plumb-legs of the water-glass the drop will likewise be adjusted in the level leg or chamber thereof, while the spring 15 will always tend to maintain the block in its adjusted position. It will likewise be evident that by placing the plumb-and-level glass at one end of the tool a decided advantage is obtained, since if a workman is plumbing a wall below the surface at which he is working by placing the tool in position to bring the end plumb-glass uppermost the workman may observe discrepancies without ceasing work or losing time, and by reversing the tool for overhead work the workman may as readily read the plumb-glass.

It will be understood that instead of making the liquid-glass of U shape it may be made of L shape, embodying a single plumb and a level section only, and that the glass may be placed in the center of the tool or at any point between its ends.

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

1. In a plumb and level, the combination with the body of the tool provided with a chamber formed therein and deepest at each side of its center, of a substantially inverted U-shaped block placed in the said chamber, a pivot passed through one leg of the block and into the body of the tool, an adjusting screw passed through the body of the tool at the bottom thereof and into the opposite leg of the block, and a combined plumb and level glass secured to the block, as and for the purpose specified.

2. In a plumb and level, the combination, with the body of the tool provided with a chamber formed therein deepest at its sides, of a substantially inverted U-shaped block placed in the said chamber, a spring intervening between the shallower wall of the chamber and the contiguous wall of the body of the block, a pivot passed through one leg of the block and into the body of the tool, an adjusting screw passed through the body of the tool and into the opposite leg of the block, and a combined plumb and level glass secured to the block, whereby through the adjustment of a single screw the drop in both the level and the plumb sections of the glass may be regulated, as and for the purpose specified.

3. The combination, with the body of a plumb and level tool provided with a chamber formed therein and deepest at each side of its center and likewise provided with plumb openings connected with the said chamber, of a block shaped to correspond to the shape of the aforesaid chamber, a spring intervening the shallower portion of the chamber and the opposing portion of the block, being seated in recesses formed in the body of the tool and in the said block, a pivot-pin pivoting one of the legs of said block in the said chamber, an adjusting screw carried by the body of the tool and entering the opposing leg of the block, and a substantially U-shaped water glass secured to the marginal portion of the block and divided into three compartments, two plumb compartments and one level compartment, the plumb compartments being visible at the plumb openings of the tool, substantially as shown and described.

4. In a plumb and level, the combination with the body of the instrument having a chamber formed therein deepest at its sides, of a block fitted loosely in said chamber, and comprising a body and legs projected from the body and adapted to enter the deeper portions of the said chamber, the said block being pivoted at one side of its center and the leg at the opposite side of the center having an opening formed therein, a threaded aperture extending through the bottom portion of the leg into the said opening, an adjusting screw extending through the bottom of the instrument and engaging the said threaded aperture in the leg, a combined plumb and level glass carried by the block, and a spring located between the said block and the body of the instrument, as and for the purpose set forth.

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Witnesses:

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