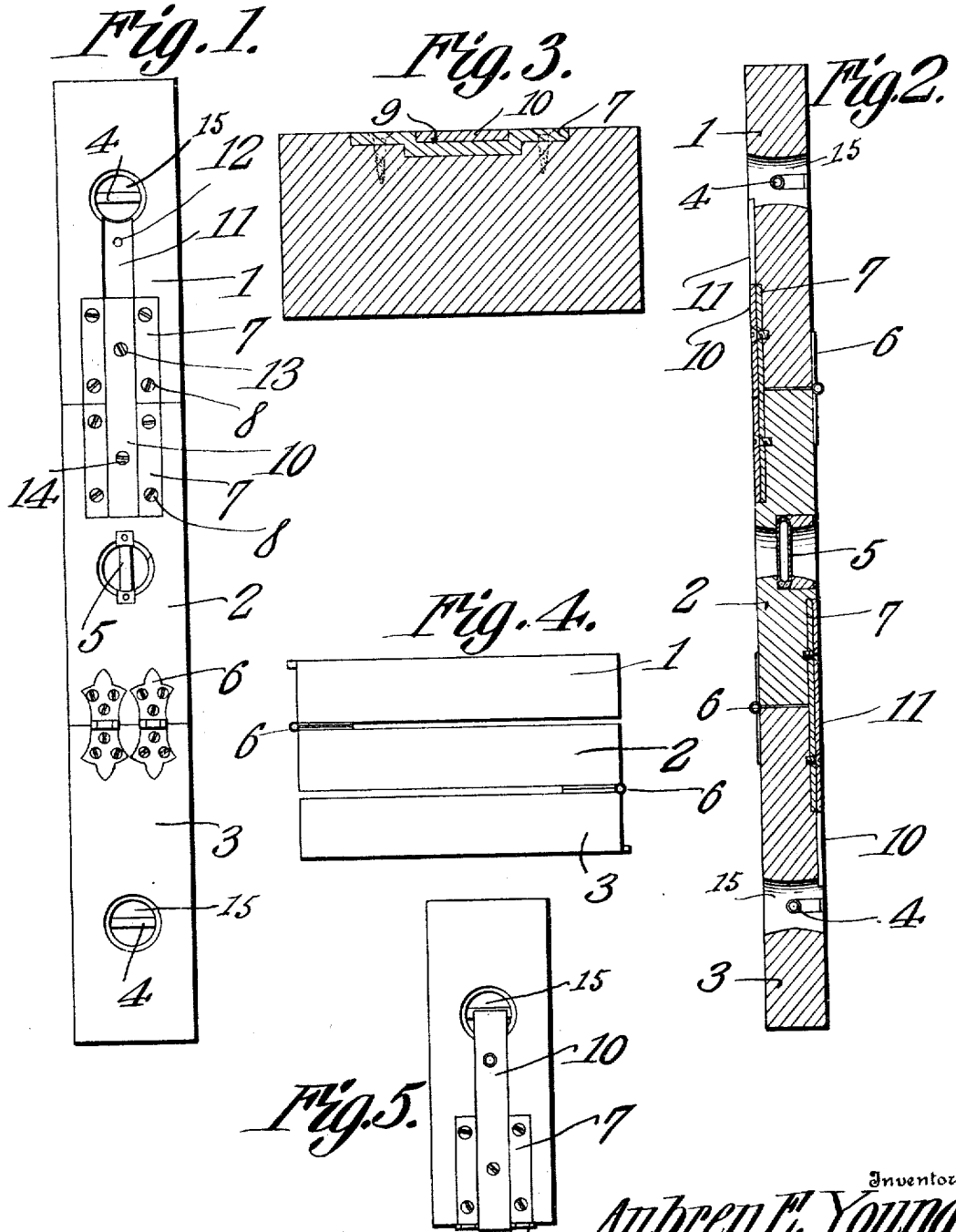


950,199.

Patented Feb. 22, 1910.



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UNITED STATES PATENT OFFICE.

AUBREY EDWIN YOUNG, OF CHERRYVALE, KANSAS.

PLUMB-LEVEL.

950,199.

Specification of Letters Patent.

Patented Feb. 22, 1910.

Application filed May 6, 1909. Serial No. 494,294.

To all whom it may concern:

Be it known that I, AUBREY EDWIN YOUNG, a citizen of the United States, residing at Cherryvale, in the county of Montgomery and State of Kansas, have invented a new and useful Plumb-Level, of which the following is a specification.

The plumb level herein described is adapted to be used by stone masons, brick-layers, and other artisans of a like calling.

The improvements forming the subject matter of this application for Letters Patent consist in making the plumb-level foldable, means being provided for holding the several sections of which the device is composed, in perfect alinement when the device is extended and operative for use, the means for holding the several sections in alinement being capable of being housed within one of said sections when the device is folded and not in use, to protect the bubble-tube therein.

With the above and other improvements in view, the invention consists in the novel construction and arrangement of parts hereinafter described, delineated in the accompanying drawings, and particularly pointed out in that portion of this instrument wherein patentable novelty is claimed for certain distinctive and peculiar features of the device, it being understood that, within the scope of what hereinafter thus is claimed, divers changes in the form, proportions, size and minor details of the structure, may be made, without departing from the spirit or sacrificing any of the advantages of the invention.

Similar numerals of reference are employed to denote corresponding parts throughout the several figures of the drawings.

In the accompanying drawings,—Figure 1 shows my invention in front elevation, extended, and locked in position for use; Fig. 2 is a longitudinal section of the device, the same being in the position shown in Fig. 1; Fig. 3 is a transverse section through one of the sections which compose the plumb level, the view being designed to show particularly, the plate which is assembled with one end of said section, and the slide which is mounted for reciprocation in said plate; Fig. 4 is a side elevation of the plumb level showing the same folded together; and Fig. 5 is a top plan of the plumb level, the same being folded together in the manner shown in Fig. 4.

My improved plumb level is provided ad-

jacent its ends, with the usual transverse bubble-tubes 4, housed, as shown in Fig. 2, within the contour of the device in openings 15 and adapted to enable the instrument to be used as a plumb. Midway between its ends, a longitudinally disposed bubble-tube 5 is shown, the same being adapted to enable the instrument to be used as a level.

The device comprises three sections, the end sections being denoted by the numerals 1 and 3, and the middle section being denoted by the numeral 2. These three sections are assembled by means of hinges 6, one set of which is disposed upon one side of the instrument, the other being disposed upon the other side thereof, in order that the same may readily be folded into Z shape, the sections ultimately being brought into close relation with each other, as shown in Fig. 4.

In Fig. 1, the sections 1 and 2 are shown to be provided with means whereby the said sections may be held in alinement and in rigid relation. It is to be understood, that, as clearly shown in Fig. 2, the sections 2 and 3 are likewise provided with means for holding them in alinement, but, since the means whereby the sections 2 and 3 are assembled are exact duplicates of the means whereby the sections 1 and 2 are assembled, as shown in Fig. 1, the description will be applied specifically to the sections 1 and 2, a duplicate description of the parts being unnecessary.

Fig. 1 being considered as a front elevation, the front faces of the sections 1 and 2 at their adjacent ends are provided with plates 7, lying flush with said front faces. These plates 7 terminate at the ends of the sections upon which they are mounted, being assembled with said sections by means of screws 8 or other common means adapted to the end sought. As shown in Fig. 3, each of the plates 7 is longitudinally channeled as denoted by the numeral 9, a slide 10 being mounted for reciprocation in the channels 9 of the plates. The channels 9 of the plates 7 are alined, and the slide 10 fits closely therein, so that, as shown in Fig. 1, when the said slide 10 is disposed across the pivotal union between the sections 1 and 2, the same will be held rigidly together and in alinement. The plate 7 which is carried by the section 1 is provided in its channeled portion with an aperture threaded to receive a screw 13, the said screw being insertible

into an aperture provided for its reception in the slide 10. The other extremity of the slide 10, and the plate 7 which is carried by the section 2 are provided with apertures adapted to receive a screw 14, and when the said screws 13 and 14 are mounted in their places, as shown in Fig. 1, it is obvious that the sections 1 and 2 will be held in rigid alinement. If desired, the plates 7 may be fashioned from aluminum in order that the weight of the device may not be increased noticeably by their employment.

In order to house the slide 10 in an out of the way position and to protect the bubble-tubes 4 when the device is folded as shown in Fig. 4, the section 1 between the end of the plate 7 which it carries and the opening 15, is provided with a longitudinal channel 11 disposed in alinement with the channel 9 of the plate 7 which is carried by said section 1, and of substantially the same cross sectional area as said channel 9, the channel 11 communicating with the opening 15. The channel 11 adjacent one end is provided with a threaded aperture 12 adapted to receive one of the screws whereby the slide 10 is assembled with the sections 1 and 2. The aperture 12, and the aperture in which the screws 13 and 14 are mounted, are so disposed with respect to each other and with respect to the sections of the device, that, when the screws 13 and 14 are removed from the positions shown in Fig. 1, one of said screws may be mounted in the aperture 12, the other being mounted in the aperture designed for the reception of the screw 13 when the device is mounted as shown in Fig. 1, it being understood that the slide 10 is first slid to occupy the channel 11. When the member 10 has been slid to occupy the channel 11, the device may be folded into the form shown in Fig. 4, the slides 10 being moved into projection within the contour of the openings 15 and there secured, above the bubble-tubes 4, as shown in Fig. 5, protecting the said tubes against injury.

The hereinbefore described device al-

though simple in construction results in a plumb level adapted to be folded into small compass whereby the same may readily be housed in a tool-chest or other receptacle, the capacity of the instrument for folding, in no way impairing its rigidity when in an extended position, such a contingency having been obviated by the employment of the plates 7 and the slide 10, as hereinbefore described.

Having thus described my invention what I claim as new and desire to protect by Letters Patent is:—

1. A plumb level comprising hinged sections provided with alined channels, one of the sections having an opening with which the channel of the said section communicates; a bubble-tube located in the opening; a slide to reciprocate in the channels and means for uniting the slide with both sections and to hold the same in alinement; the slide being movable into the contour of the opening to extend over the bubble-tube.

2. A plumb level comprising a middle section and other sections hinged to the ends of the middle section and arranged to be folded upon opposite sides thereof, the end sections being provided with openings and with bubble-tubes located therein; the middle section being provided with channels upon opposite sides, and the end sections being provided with channels upon opposite sides in alinement with the channels of the middle section, and communicating with the openings; slides to reciprocate in the channels; means for uniting each slide with the middle section and with an end section; the slides being movable into the contour of the openings to extend over the bubble-tubes when the level is folded.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

AUBREY EDWIN YOUNG.

Witnesses:

W. H. HITE,

JOHN L. MURPHY.