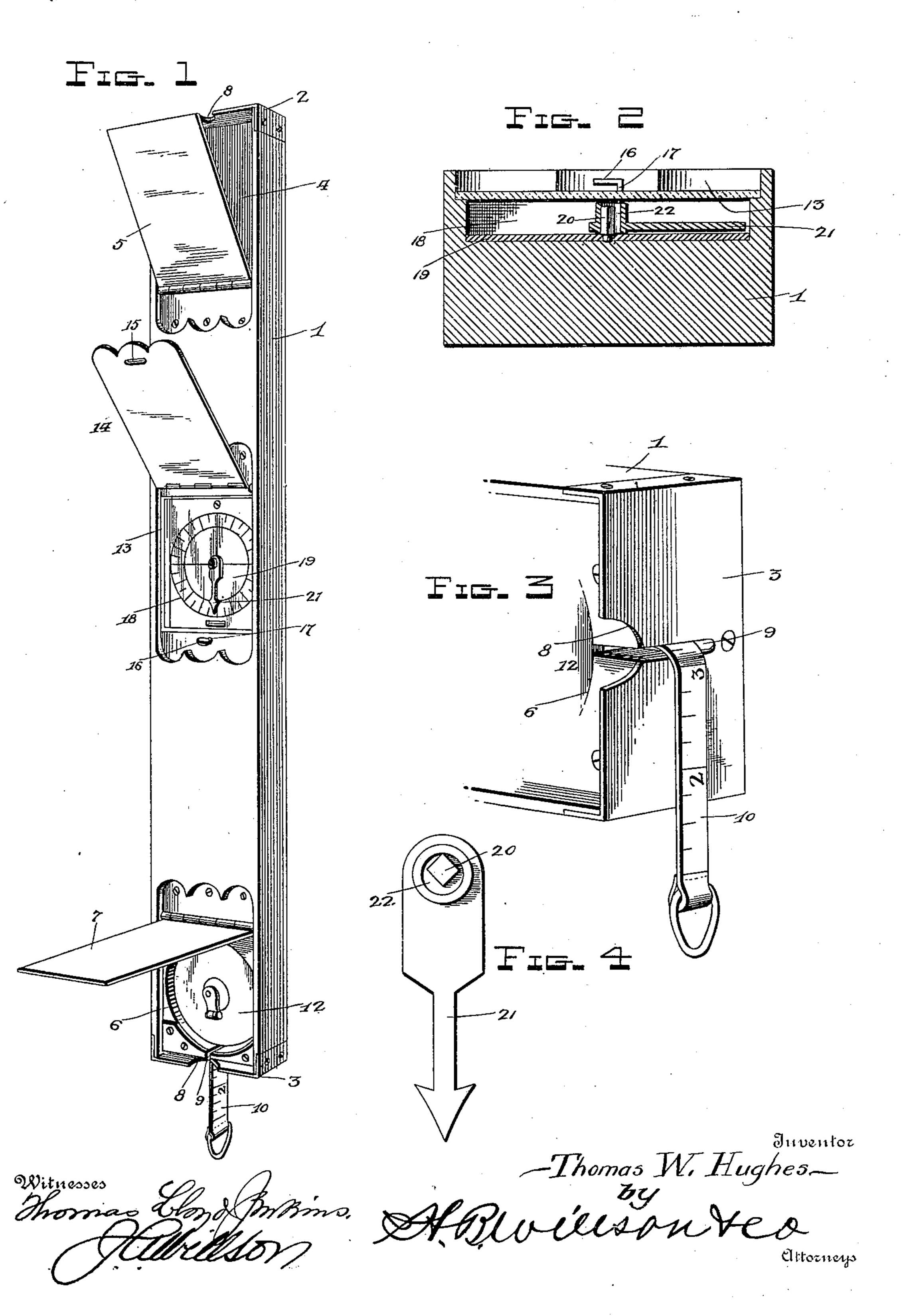
## T. W. HUGHES. GRAVITY PLUMB LEVEL.

(Application filed Aug. 11, 1898.)

(No Model.)



## United States Patent Office.

THOMAS W. HUGHES, OF HARRISONBURG, VIRGINIA, ASSIGNOR OF ONE-HALF TO CHARLES HEATH, OF TRENTON, NEW JERSEY.

## GRAVITY PLUMB-LEVEL.

SPECIFICATION forming part of Letters Patent No. 631,793, dated August 29, 1899.

Application filed August 11, 1898. Serial No. 688,367. (No model.)

To all whom it may concern:

Be it known that I, Thomas W. Hughes, a citizen of the United States, residing at Harrisonburg, in the county of Rockingham and 5 State of Virginia, have invented certain new and useful Improvements in Gravity Plumb-Levels; and I do 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.

My invention relates to a novel form of gravity plumb and level combined; and the object is to provide a simple, convenient, and hands took of this observator.

15 handy tool of this character.

To this end the invention consists in the construction, combination, and arrangement of the device, as will be hereinafter more fully described and particularly pointed out in the claims.

20 in the claims.

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The accompanying drawings show my invention in the best form now known to me, but many changes in the details might be made within the skill of a good mechanic without departing from the spirit of my invention as set forth in the claims at the end of this specification.

The same reference characters indicate the

same parts of the invention.

Figure 1 is a perspective view of my improved plumb-level. Fig. 2 is a transverse section of the same. Fig. 3 is a perspective detail of one end of the stock. Fig. 4 is an enlarged detail view of the pointer and its

35 supporting stud.

1 denotes the stock, and it is of the usual conventional shape and dimensions, and it is preferably made of well-seasoned wood on account of its lightness in handling, and its op-40 posite ends are provided with the protectingplates 2 and 3, the plate 2 forming the end wall of the pocket 4, which is provided with a hinged cover 5. A circular pocket 6 is formed in the opposite end of the stock and 45 it is protected by a hinged cover 7. Both of the end plates are provided with a thumb-recess 8 to facilitate the raising of the covers, and the plate 3 is also formed with a slit 9 to receive the projecting end of a tape 10, which 50 is contained in the circular tape-measure case 12, loosely seated in the pocket 6.

13 denotes a central recess protected by a hinged cover 14, the free end of which is formed with a slot 15 to receive the angular arm 16 of a stud 17, rotatably fixed in the 55 stock and which serves as a keeper to lock the cover closed when not in use.

18 denotes a circular recess, in the bottom

of which is fixed a dial-plate 19.

20 denotes a sectional stud centrally fixed 60 in the dial-plate, and 21 represents the gravity pointer or hand, having its hub formed with a circular orifice 22 to receive the stud 20 and which permits the pointer to rotate freely thereon. The knife-edges of the stud are 65 ranged longitudinally and transversely, as shown, so as to form a delicate poise for the hand in either one of the four positions in which the stock is used.

Having thus fully described my invention, 70 what I claim as new and useful, and desire to secure by Letters Patent of the United States,

is—

1. In an instrument of the character described, the stock 1 provided with the recess 75 13, a gravity-hand mounted in said recess, the pockets 4 and 6 formed at opposite ends of the stock, hinged covers for said pockets, and the protecting-plates 2 and 3 fixed to the ends of said stock, the plate 3 being provided with 80 a slot or slit 9 communicating with said pocket 6, substantially as and for the purpose set forth.

2. In an instrument of the class described, the stock 1, formed at one end with the pocket 85 6 provided with the slit 9, and the stud 20 fixed in the body of said stock and in longitudinal alinement with said slit, the pointer 21 pivoted on said stud; in combination with the tape-measure case removably seated in 90 said pocket 6, and the measuring-tape 10 contained within said case, and having its free end projecting through said slit, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set 95 my hand in presence of two subscribing wit-

nesses.

## THOMAS W. HUGHES.

Witnesses:

BENJ. G. COWL, J. A. WILLSON.