(No Model.)

J. PRICKETT.

GUARD ATTACHMENT FOR LEVELS.

No. 502,202. Patented July 25, 1893.

Fig. 1.

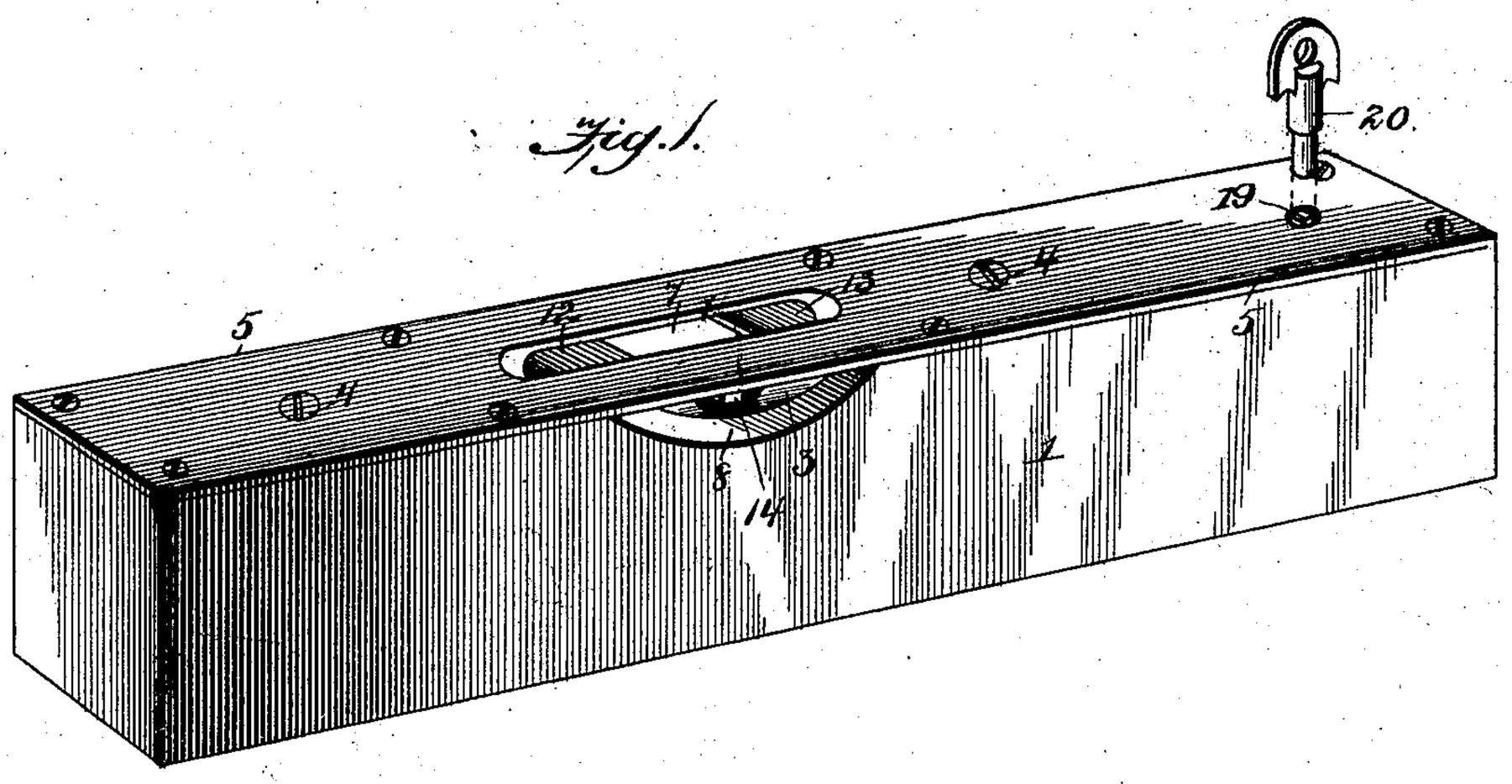


Fig. 2.

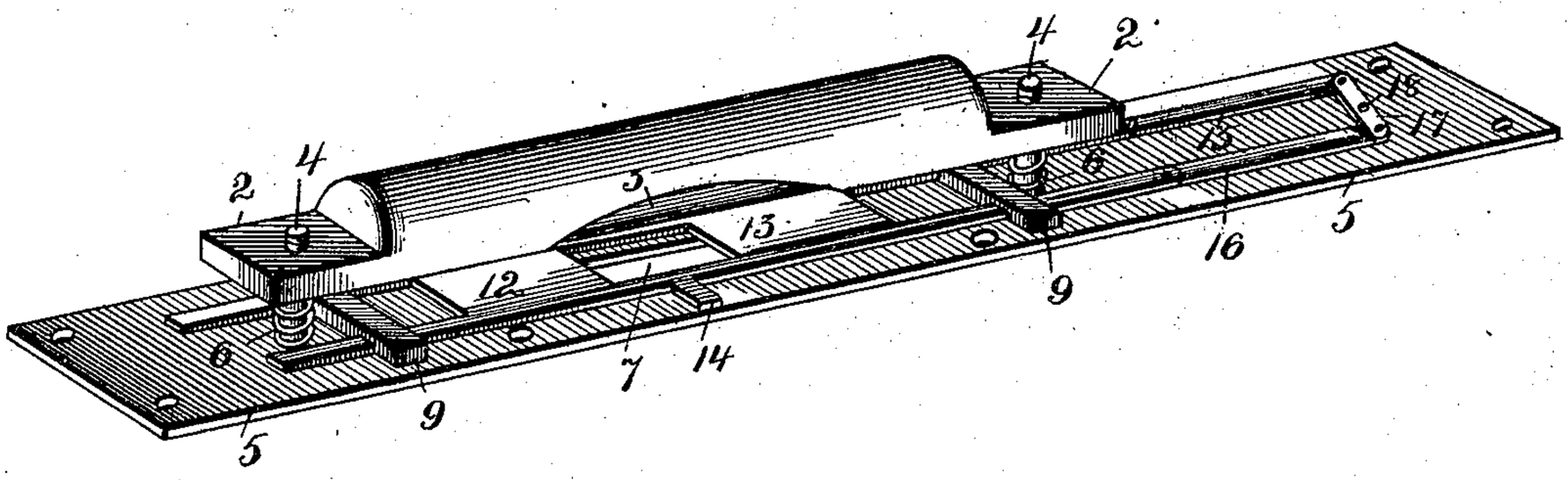
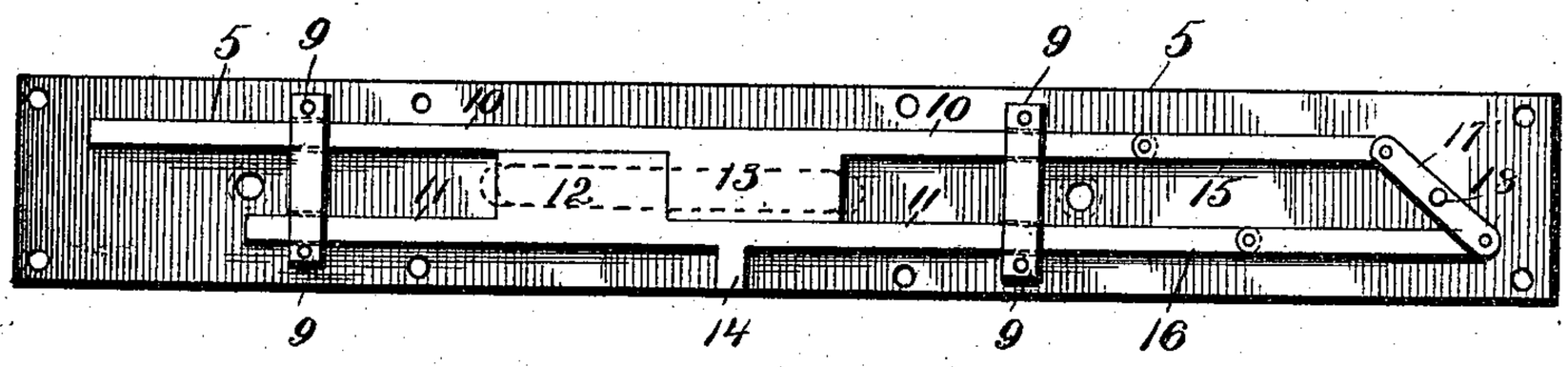


Fig. 3.



Witnesses

John Shaw.

Chas. S. Hoyer.

Inventor

J. Prickett.

By his Attorneys,

C. A. Snow & Co.

UNITED STATES PATENT OFFICE.

JOSHUA PRICKETT, OF MARINETTE, WISCONSIN.

GUARD ATTACHMENT FOR LEVELS.

SPECIFICATION forming part of Letters Patent No. 502,202, dated July 25, 1893.

Application filed February 6, 1893. Serial No. 461,188. (No model.)

To all whom it may concern:

Be it known that I, JOSHUA PRICKETT, a citizen of the United States, residing at Marinette, in the county of Marinette and State of Wisconsin, have invented a new and useful Guard Attachment for Levels, of which the following is a specification.

This invention relates to attachments to levels, and it has for its object to provide means for adjusting the level-glass through the attachment thereof to the top-plate, and also to provide guard or protecting slides for the said level-glass, and with these objects in view, the invention consists in the construction and arrangement of the parts thereof as will be more fully hereinafter described and claimed.

In the drawings: Figure 1 is a perspective view of a level having the improved attachments applied in connection therewith. Fig. 2 is a detail perspective of the top-plate removed and inverted and showing the attachments in connection therewith. Fig. 3 is a plan view of the top-plate detached, looking toward the under side thereof, and showing the level-glass and its attachments removed.

Similar numerals of reference indicate corresponding parts in the several figures of the drawings.

Referring to the drawings, the numeral 1 designates a frame of suitable construction that is recessed to receive a frame 2, in which is suitably mounted a level-glass 3. The opposite ends of the frame 2 are apertured and screw-threaded to receive screws 4, that extend downwardly from the top-plate 5, and between the under side of the top-plate 5 and the upper surface of the frame 2 are mounted coiled springs 6, that surround the said screws and tend to normally force the said frame 2 downwardly and keep the same from working up. The adjustment of the said frame 2 is accomplished by engaging the heads of the said screws which are exposed in the exterior surface of the said top-plate. By this means the level-glass may be adjusted to retain the bubble always in a true central position.

The top-plate 5 is formed with the customary sight-opening 7, and the opposite sides of the frame at the upper edges of the central portion of the same are also recessed, as at 8, so that a lateral view may be obtained of the level-glass. To the bottom portion or under side of the said top-plate 5 are secured transversely-arranged guide-strips 9, having suitable openings therethrough for the free movement therein of longitudinally-extending arms 10 and 11, integrally formed with and extending from oppositely-disposed slides 12 and 13. The said arms 10 and 11 are of such length as to always be in connection with the guides, and one of the said arms 10 adjacent to its slide 12 has a laterally projecting finger 14, that lies close against the under side of the plate 5 and may be readily engaged through one of the openings 8 in the frame 1. The slides 12 and 13 are of the same length, and when closed the inner engaging edges thereof lie directly over the transverse center of the level-glass, and may be adjusted to and from each other any suitable distance, if found desirable, to expose the bubble in the level-glass, but when closed, the said slides protect the said level-glass, as they are located directly under and are adapted to close the sight-opening 7. The arm 10 of the slide, and the arm 11 of the opposite slide, have links 15 and 16, pivotally connected to the extreme ends thereof, and the said links have their opposite ends pivotally attached to the outer end of a lever 17, having a centrally-located fulcrum pivot 18, secured to the plate 5. By this means it will be seen that the operation of one slide relatively moves the opposite slide, and thereby the movement of the finger 14 to open or close the slides 12 and 13 will cause a transmission of the movement of one part equally to the other. Thus it will be seen that a simple mechanism is employed for uniformly operating the slides 12 and 13 so that they will move equally with mechanical accuracy and exactness; and it will be further observed that to all practicable intents and purposes they can never be thrown out of adjustment unless some of the parts be broken, as those parts which slide adjacent to other surfaces are so loosely fitted as to reduce friction and avoid wear.

The device as a whole will be found very useful and convenient, and the mechanism being of simple form can be applied very cheaply.

The pivot fulcrum 18, is extended through the top plate and formed with a square head 19 that is adapted to be engaged by a key 20 for conveniently operating the slides, and is preferably used for such operation though the finger 14, as previously stated, may be used for such purpose. The said finger, however, will be useful in determining a central position of the slides from the side of the level.

Changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

Though the slides are intended for the purpose of protecting the glass, as stated, they are also designed for the purpose of marking the length of the bubble, and in this capacity their function is exceptionally convenient and advantageous.

Having described the invention, what is claimed as new is—

1. In combination with a level provided with a sight-opening, of twin oppositely-movable slides arranged in operative relation with said sight-opening, and means for unitedly operating the slide, substantially as specified.

2. In a device of the character set forth, the combination of the level-glass, the top-plate having a sight-opening therein, a pair of slides mounted against the under side of said top-plate and adapted to open or close the said sight-opening and having arms extending therefrom, links connected to a portion of said arms, and a pivoted lever having the said links attached to the opposite ends thereof whereby the said slides are unitedly operated to open or close, substantially as described.

3. In a device of the character set forth, the combination of a level-glass, a top-plate having a sight-opening therein, a pair of slides mounted against the under side of the top-plate and adapted to open and close the sight-opening therein and having oppositely-extending arms, one of which is supplied with a laterally-projecting operating finger, guides in which said arms are mounted, links connecting a portion of the ends of said arms with a lever, and a frame in which the said level-glass is mounted and to which the said top-plate is attached, substantially as described.

4. The combination with a level provided with a sight-opening, of oppositely-movable twin slides, arms connected to and carrying said slides respectively, and means connected to the arms for reciprocating the latter simultaneously in opposite directions, substantially as specified.

5. In a device of the character set forth, the combination of a level-glass, the top-plate having a sight-opening therein, a pair of slides mounted against the under side of the said top-plate and a connection at one end of said slides for simultaneously operating the latter, substantially as described.

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

JOSHUA PRICKETT.

Witnesses:
D. J. MODAGIN,
MAY SHIELDS.