

(No Model.)

W. A. WRIGHT.
EXTENSION LEVELING ROD.

No. 360,836.

Patented Apr. 5, 1887.

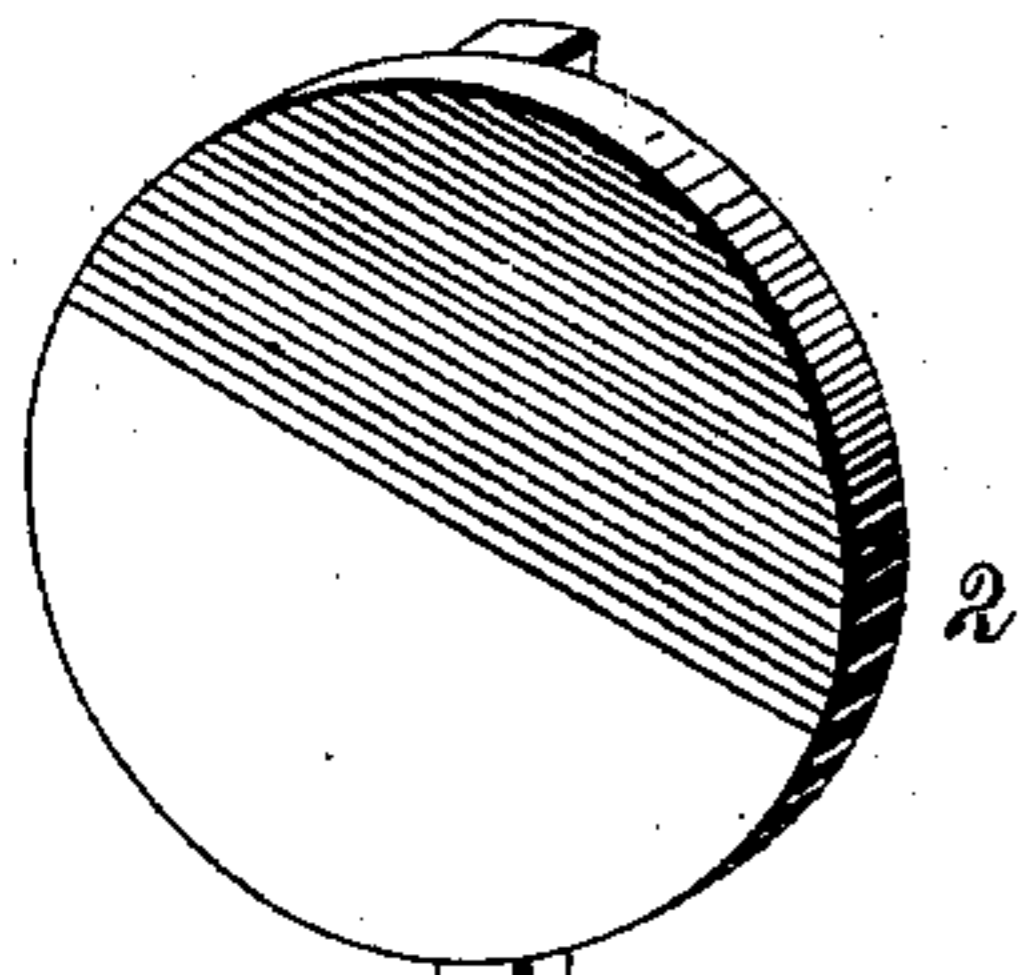
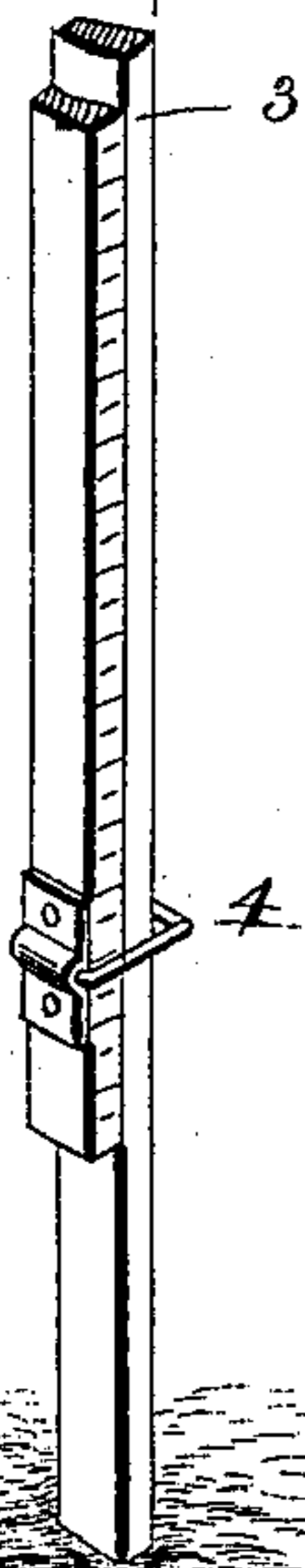
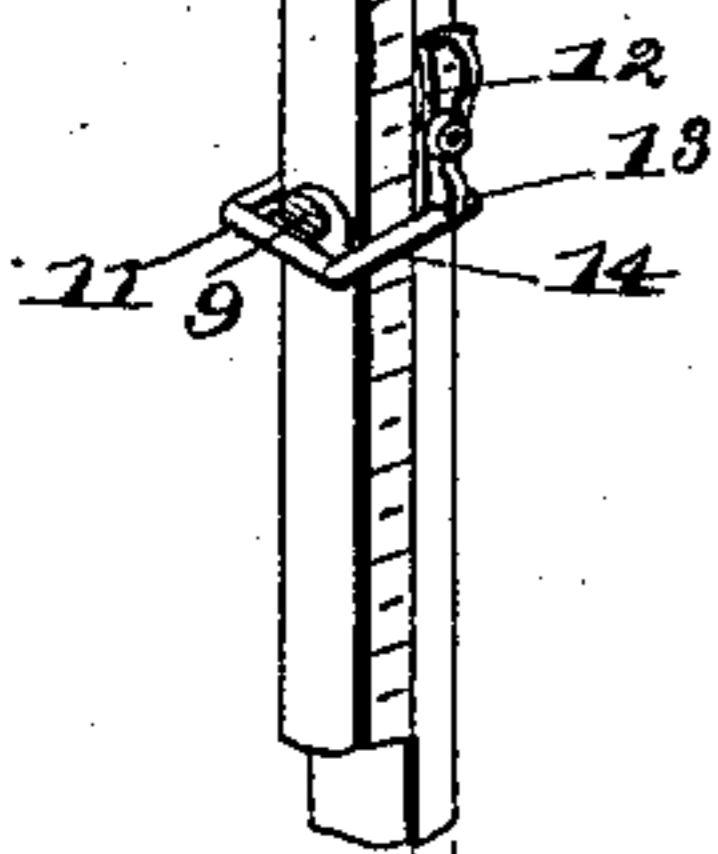


Fig. 1.



WITNESSES

J. L. Curran
Benjamin Jones.

Fig. 2.

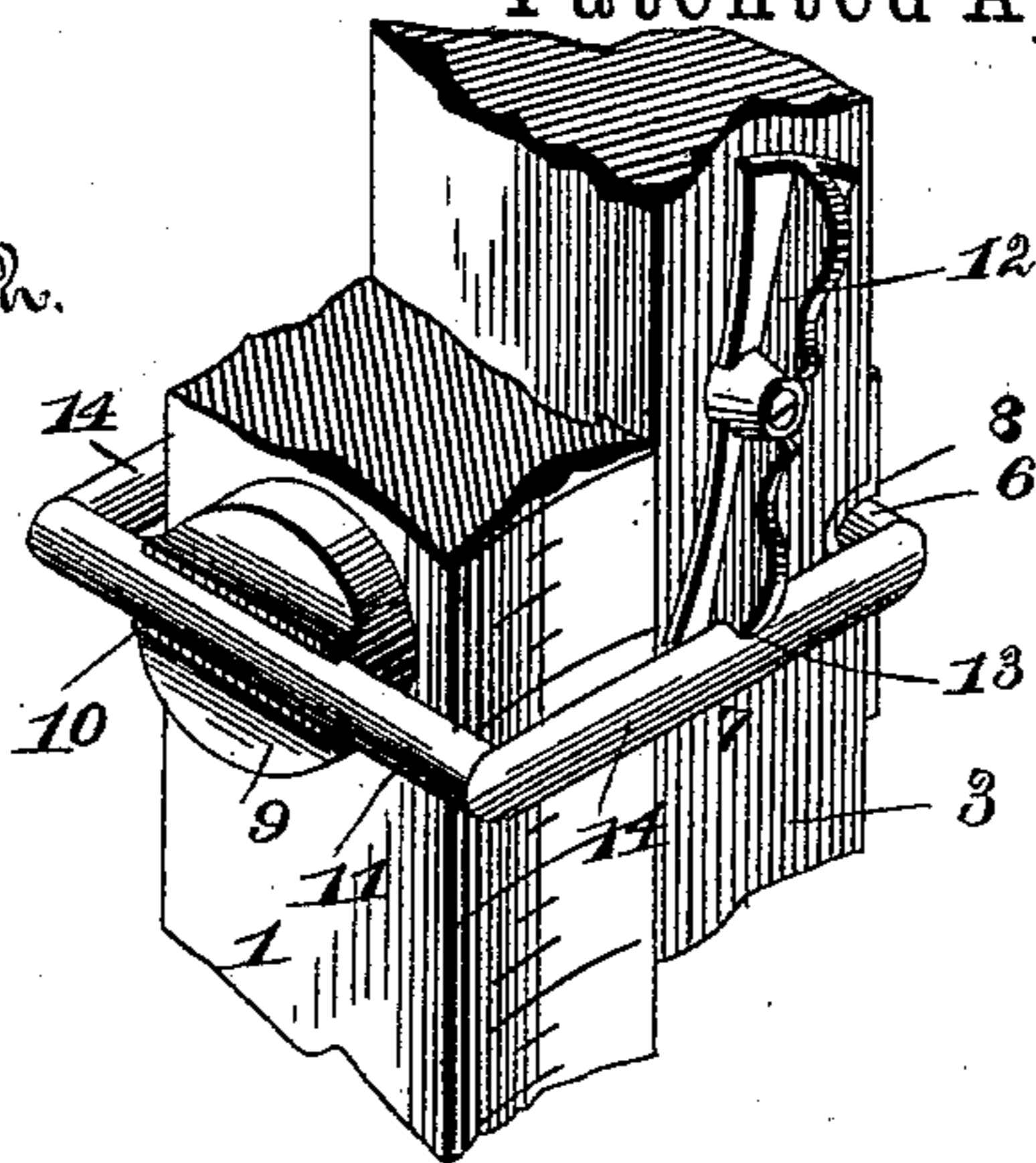


Fig. 3.

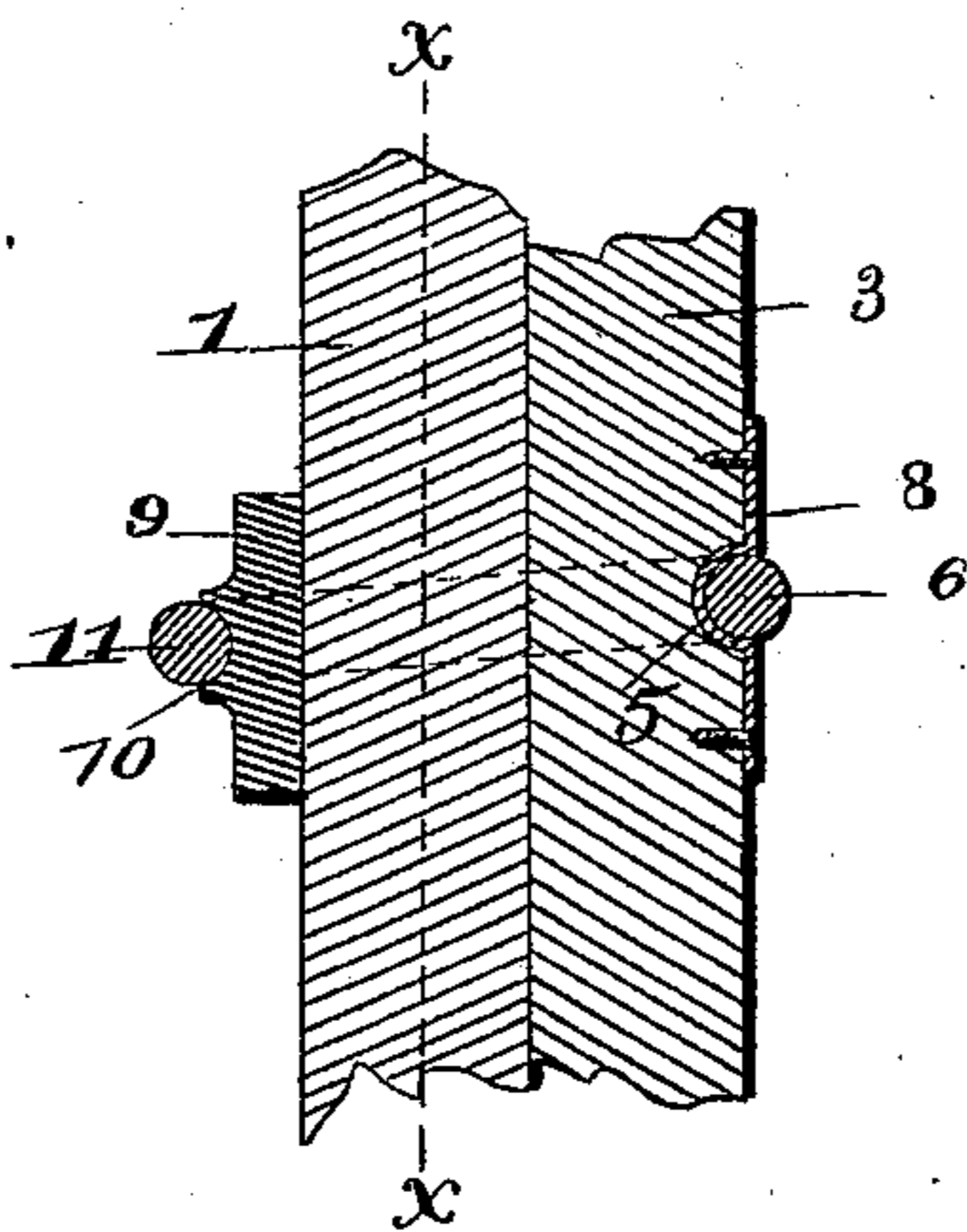
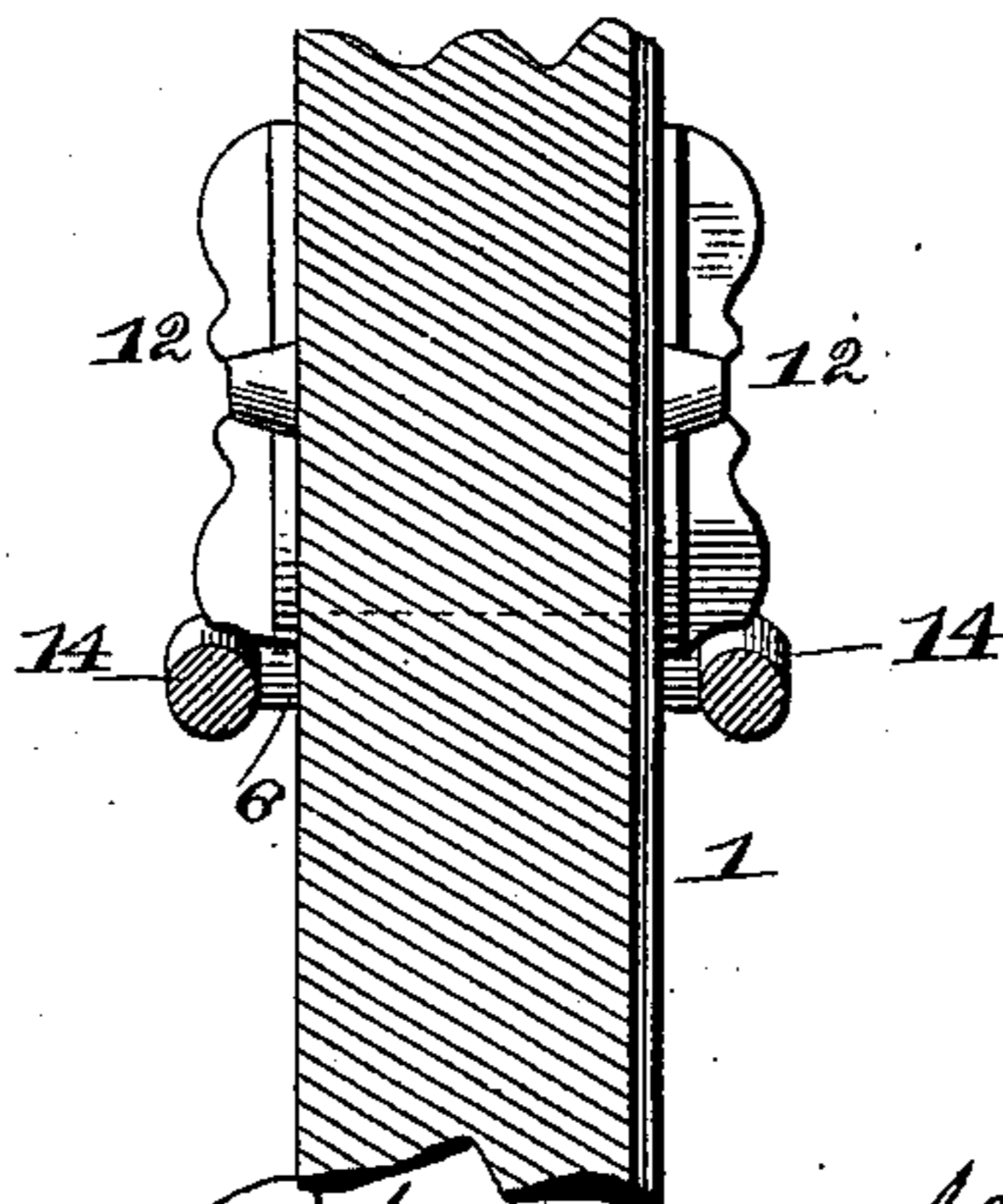


Fig. 4.



William Abram Wright.

INVENTOR

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UNITED STATES PATENT OFFICE.

WILLIAM ABRAM WRIGHT, OF CAVE SPRING, GEORGIA, ASSIGNOR OF
ONE-HALF TO J. B. LAPSLEY, OF SAME PLACE, AND J. W. LAPSLEY,
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EXTENSION LEVELING-ROD.

SPECIFICATION forming part of Letters Patent No. 360,836, dated April 5, 1887.

Application filed October 6, 1886. Serial No. 215,476. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM ABRAM WRIGHT, a citizen of the United States, and a resident of Cave Spring, in the county of Floyd and State of Georgia, have invented certain new and useful Improvements in Extension-Rods; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a perspective view of my improved extension-rod. Fig. 2 is a similar view, on an enlarged scale, of the clamp. Fig. 3 is a vertical sectional view of the same, taken through the two sliding bars; and Fig. 4 is a similar view on line *x x*, Fig. 3, taken at a right angle to the former view.

Similar numerals of reference indicate corresponding parts in all the figures.

My invention has relation to extension-rods for the use of surveyors and persons engaged in surveying and leveling land; and it consists in the improved construction and combination of parts of such a rod having a clamp for holding the two sliding bars, as hereinafter more fully described and claimed.

In the accompanying drawings, the numeral 1 indicates the bar, having the target 2 at its upper end, and the numeral 3 indicates the lower bar, or the bar rested upon the ground with its lower end during the operation.

The sliding bar or the bar bearing the target is provided near its lower end with a bail, 4, passing around the lower bar and sliding upon the same, and the lower bar is formed with a transverse groove or recess, 5, near its upper end, in which groove or recess one end bar, 6, of a link, 7, rests and rocks, the groove being preferably formed with a suitable metallic lining, 8. This link passes around the sliding rod, and a block, 9, bears with its inner face against the face of the sliding rod, and has a transverse groove, 10, in its outer side, into which the other end bar, 11, of the link rests, rocking in the groove.

Two turn buttons or levers, 12, are pivoted

upon the sides of the lower rod, above the link, and have their lower ends formed with round notches 13, with which they may bear against the side bars, 14, of the link, and by turning the turn-buttons with their notched ends down toward the link the said link may be forced with its free end downward, binding the block against the face of the sliding rod.

When the rod is used, the turn-buttons are tilted, so as to allow the sliding rod to slide freely upward, the block and link being tilted downward by their gravity and holding the sliding bar from sliding downward, and when the sliding rod has been slid to the desired height, bringing the line on the target to its proper level, the turn-buttons may be turned, bringing the notched ends against the side pieces of the link and forcing the block against the face of the sliding bar in such a manner that the bar cannot be moved in either direction.

When it is desired to slide the sliding bar down, when the link is loose, the free end of the link may be raised, when the sliding bar may slide freely in either direction.

It will be seen that by means of this clamp the rod may be held in its adjusted position for the purpose of reading the height to which it has been extended, and the clamps may be operated easily by the pressure of two fingers by the person working the rod, the pressure being exerted upon the upper ends of the turn-buttons.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In an extension-rod, the combination of a link pivoted upon the lower bar and passing around the sliding bar, a block pivoted upon the outer end bar of the link and bearing against the face of the bar, and means for forcing the free end of the link down and holding it, as and for the purpose shown and set forth.

2. In an extension-rod, the combination of a link pivoted upon the lower bar and passing around the sliding bar, a block pivoted upon the outer end bar of the link and bearing against the face of the sliding bar, and turn-buttons pivoted upon the sides of the lower

bar above the link and having their lower ends bearing against the side bars of the link, as and for the purpose shown and set forth.

3. In an extension-rod, the combination of a
5 lower bar having a transverse groove or recess near its upper end, a sliding bar, a link having one end bar resting and rocking in the groove and passing around the sliding bar, a
10 block having a groove in its outer face and rocking with the said groove upon the free end bar of the link and bearing against the face of the sliding bar, and means for forcing the free end of the link downward, as and for the purpose shown and set forth.

15 4. In an extension-rod, the combination of a lower bar having a transverse metal-lined groove or recess near its upper end, a sliding bar, a link having one end bar rocking in the

groove or recess and passing around the sliding bar, a block having a transverse groove in
20 its outer side and rocking with the same upon the free end bar of the link, bearing against the face of the sliding bar, and turn-buttons pivoted upon the sides of the lower bar above the link and having notches in their lower
25 ends for bearing against the side bars of the link, as and for the purpose shown and set forth.

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

WILLIAM ABRAM WRIGHT.

Witnesses:

FRED W. MAXWELL,
GEO. BARNETT.