

No. 775,129.

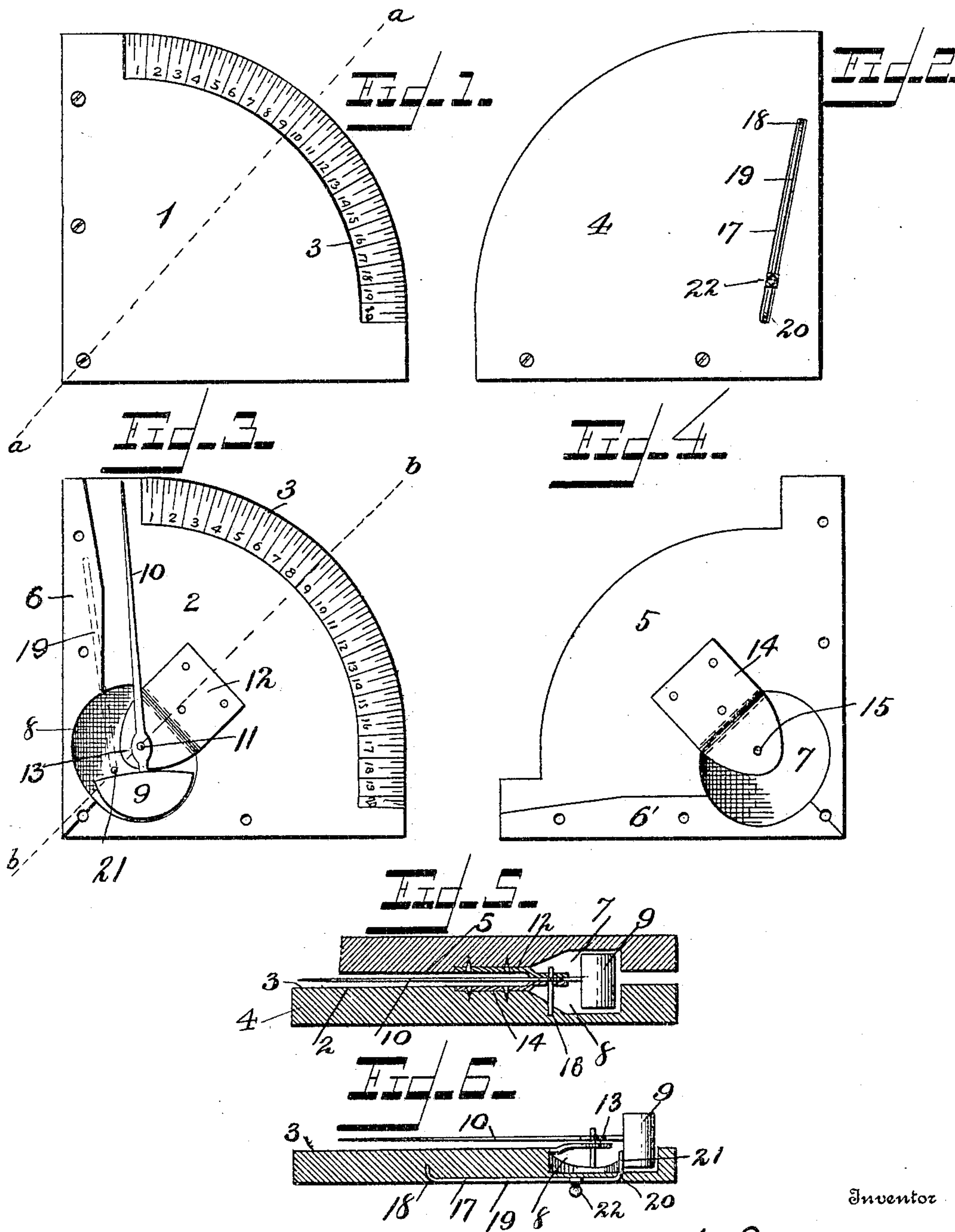
PATENTED NOV. 15, 1904.

J. A. DREW.

TRY GRAVITY LEVEL.

APPLICATION FILED JUNE 11, 1904.

NO MODEL.



Inventor

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JOHN A. DREW, OF ROCKLAND, TEXAS.

TRY GRAVITY-LEVEL.

SPECIFICATION forming part of Letters Patent No. 775,129, dated November 15, 1904.

Application filed June 11, 1904. Serial No. 212,161. (No model.)

To all whom it may concern:

Be it known that I, JOHN A. DREW, a citizen of the United States, residing at Rockland, in the county of Tyler and State of Texas, have
 5 invented certain new and useful Improvements in Try Gravity-Levels; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable
 10 others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the figures of reference marked thereon, which form a part of this specification.

My invention is a try gravity-level; and it
 15 consists of a device whose two sides are at right angles with each other and whose third side is a graduated arc of a circle, an oscillating weight actuating an indicating-finger.

The object of my invention is to produce a
 20 try-level that may be carried in a carpenter's tool-box without injury and will be ready at all times, whether the weather be hot or cold, wet or dry, to indicate the pitch of a piece of timber or a plane and which may also be used
 25 to lay off the pitch or incline desired to be made on timbers or other places.

In the accompanying drawings, Figure 1 is a front elevation of my device. Fig. 2 is a rear elevation. Fig. 3 is a front elevation,
 30 the front plate being removed. Fig. 4 is an elevation of the rear face of the front plate. Fig. 5 is a sectional view of Fig. 1 on the dotted line *a a*. Fig. 6 is a sectional view of Fig. 3 on the dotted line *b b*.

35 My invention is described as follows: The numeral 1 represents the front face of the front plate; 2, the front face of the rear plate; 3, the arc of the circle, being a part of the rear plate, said arc being divided into inches
 40 from one to twenty, said inches being divided into fourths of inches. I am not, however, confined to any particular number of inches, and the inches may be divided into smaller measure than one-fourth.

45 4 represents the rear face of the rear plate, and 5 represents the rear face of the front plate. The rear plate is provided on its inner face and left-hand edge with a raised part 6, and through the plate are perforations.
 50 The rear face of the front plate is also pro-

vided with a raised part 6', which is also provided with perforations, by means of which perforations the two parts are held together by means of screws or bolts. The purpose of these two raised parts 6 and 6' is to leave
 55 a space for the indicating-finger to play in, as shown in Fig. 5.

The inner faces of the front and rear plates 1 and 4 are provided with recesses 7 and 8, respectively, in which recesses swings as a
 60 pendulum a weight 9. Extending from the upper face of said weight 9 is an indicating-finger 10. A little above the upper face of said weight said finger is enlarged, and through
 65 said enlargement is a perforation 11. Secured to the inner face of the rear plate is a spring-plate 12, its lower end passing down partly into the recess 8 of the lower plate 4 and terminating in a perforated bearing 13.
 70 Secured to the inner face of the front plate is a spring-plate 14, its lower end passing down partly into the recess 7 of the front plate and terminating in a perforated bearing 15. These two bearings are immediately opposite
 75 each other and their perforations concentric. A pin 16 passes through the perforation 15 of plate 14, thence through the perforation 11 of the finger 10, thence through the perforation of the bearing 13 of the plate 12, and
 80 thence into the plate 4, and thus the said weight 9 is swung between these two spring-bearings, while its finger 10 is allowed to play around in the space between the two plates, the point indicating the pitch at which the
 85 level stands.

The bearings are made of spring metal, so that they will slightly impinge against the enlarged part of the finger, so that the finger will not drag against the inner faces of the said plates, but be permitted to move perfectly
 90 free. The rear face 4 of the rear plate is provided with a groove 17. In this groove is secured at the end 18 one end of a spring 19, the other end of which turns down and passes into a perforation 20 through the rear plate,
 95 forming a lock 21. This lock 21 is so situated that the finger may be locked to the left of the arc or to the right thereof.

Running across the groove 17 is a thumb-recess 22, whereby the said spring and lock
 100

may be raised and the point of said lock set out on the face of the plate, and thus leave the finger and weight to operate freely. The purpose of the groove 17 is to allow the said
5 spring 19 to be buried therein and be thereby out of danger's way.

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

- 10 1. In a try-level, the combination of a rear plate having its two sides at right angles, and its third the arc of a circle, the face of said arc being divided into measures, said plate having near the apex of its two sides a recess;
15 a spring-plate secured on the inner face of said rear plate, terminating in a perforated spring-bearing; a pin passing up through the plate, and through the perforation of the spring-bearing; a weighted finger hinged on
20 said pin; a front plate, having in its arc part a recess, and in its inner face a recess corresponding to the recess in the rear plate just described; a spring-plate and spring-bearing corresponding to the plate and bearing just
25 described, said front plate secured to said rear plate, and a spring secured to the rear face of

the rear plate, its end terminating in a lock and adapted to lock the weight of the weighted finger, substantially as shown and described and for the purposes set forth. 30

2. A try-level, consisting of a rear plate, two of its sides at right angles and its third the arc of a circle divided into measures, said plate being provided on its inner side and near the apex of its right-angle side with a recess; 35 a front plate corresponding to said rear plate, except that it has no measures and its arc is recessed to show the measures on the rear plate; a weighted finger hinged between said plates, the point of said finger adapted to point 40 to the measures on said arc, and a spring secured to the rear face of the rear plate, its end turned and passing through said plate, and adapted to lock the weight of said weighted finger, substantially as shown and described 45 and for the purposes set forth.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN A. DREW.

Witnesses:

W. B. MILNOR,

L. B. JONES.