180,337.

Patentel 121. 28,1868.

Fig:1.

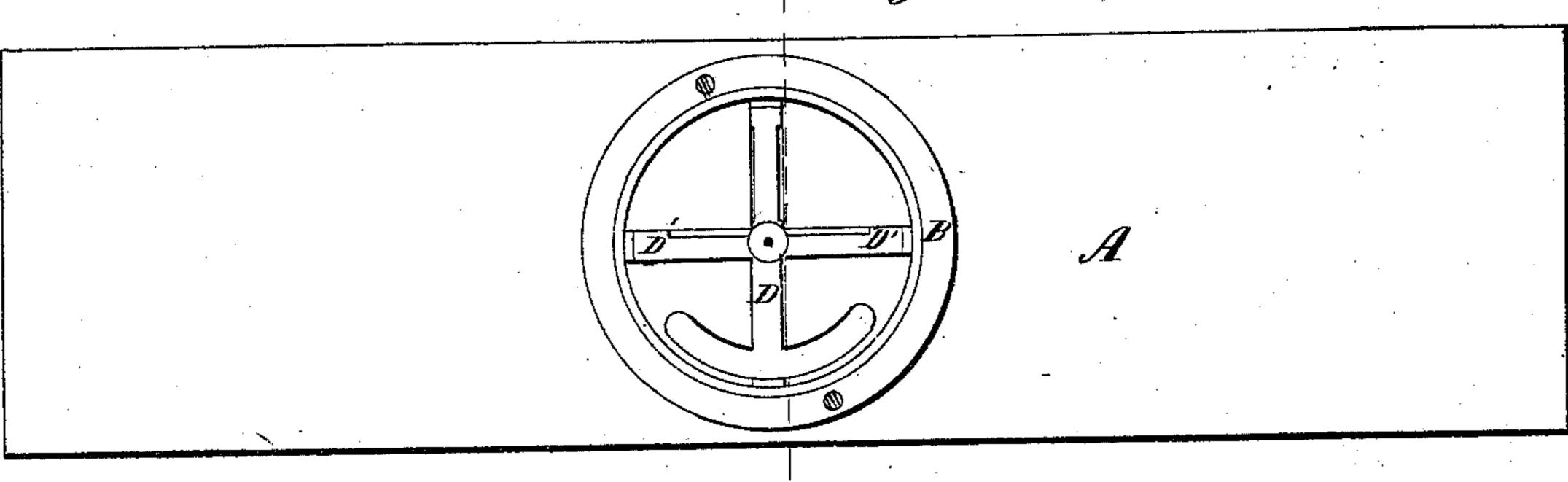
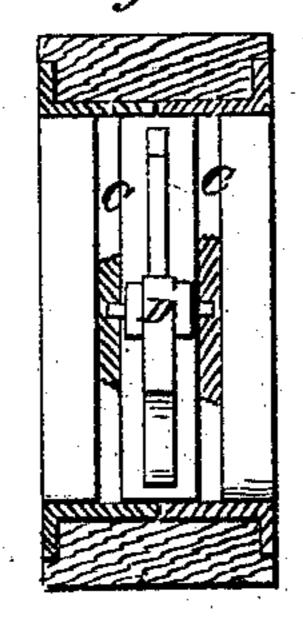


Fig: 2



Witnesses: M. b. aslikette 3, Mm Ci. magain Inventor. N. S. Cutter, Jen Mungle Attorneys

Anited States Patent Pffice.

WILLIAM P. CUTTER, OF CHELSEA, MASSACHUSETTS.

Letters Patent No. 80,337, dated July 28, 1868.

IMPROVEMENT IN LEVELS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, WILLIAM P. CUTTER, of Chelsea, in the county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Levels; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same. reference being had to the accompanying drawings, forming part of this specification.

The nature of my invention relates to improvements in levels for builders' use, and other similar purposes, whereby it is designed to provide a cheap and simple instrument, which is not so liable to injury by breakage

as the common spirit-levels are, and which, if broken, can be readily repaired by any mechanic.

And it consists in an ordinary stock, of wood, which is provided with a circular metallic ring, made in two parts, and inserted within a central circular opening on the said stock. Within the said ring a weighted pendulum is suspended upon a central axis, and provided with arms, which spring between cross-arms of the rings, and always maintaining a vertical position, no matter what position the stock may be in, as will be more fully described on reference to the accompanying drawings, wherein—

Figure 1 represents a side elevation, and

Figure 2 a section on the line x x of fig. 1.

Similar letters of reference indicate corresponding parts.

A represents the stock, which may be made of wood or any other suitable material, and provided with a ring, B, made in two parts, and inserted within a central opening in the stock. Each of the parts of the ring B is provided with the cross-arms C, between which, on a central axis, is pivoted the weighted pendulum, which is provided with the right-angled arms D D.

If when the instrument is placed on its edge, in the usual manner of using levels, the vertical part of the pendulum coincide with the vertical arm C, or the right-angled arms coincide with the horizontal arms C, then the article on which the instrument sets is level, and any variation of these parts indicates a corresponding

deviation from a level condition of the thing under examination.

I claim as new, and desire to secure by Letters Patent-

The level, constructed as described, of the two flanged rings, B, inserted in the stock A, from opposite sides, and each provided, near their inner ends, with cross-bars C, whose points of intersection furnish bearings for the pivots of the weighted angular pendulum D, as herein shown and described.

The above specification of my invention signed by me, this 16th day of March, 1868.

WILLIAM P. CUTTER.

Witnesses:

WM. F. McNamara, Alex. F. Roberts.