

(Model.)

J. T. KETCHLEDGE & R. J. PEPPER.
LEVEL.

No. 277,842.

Patented May 15, 1883.

Fig. 1

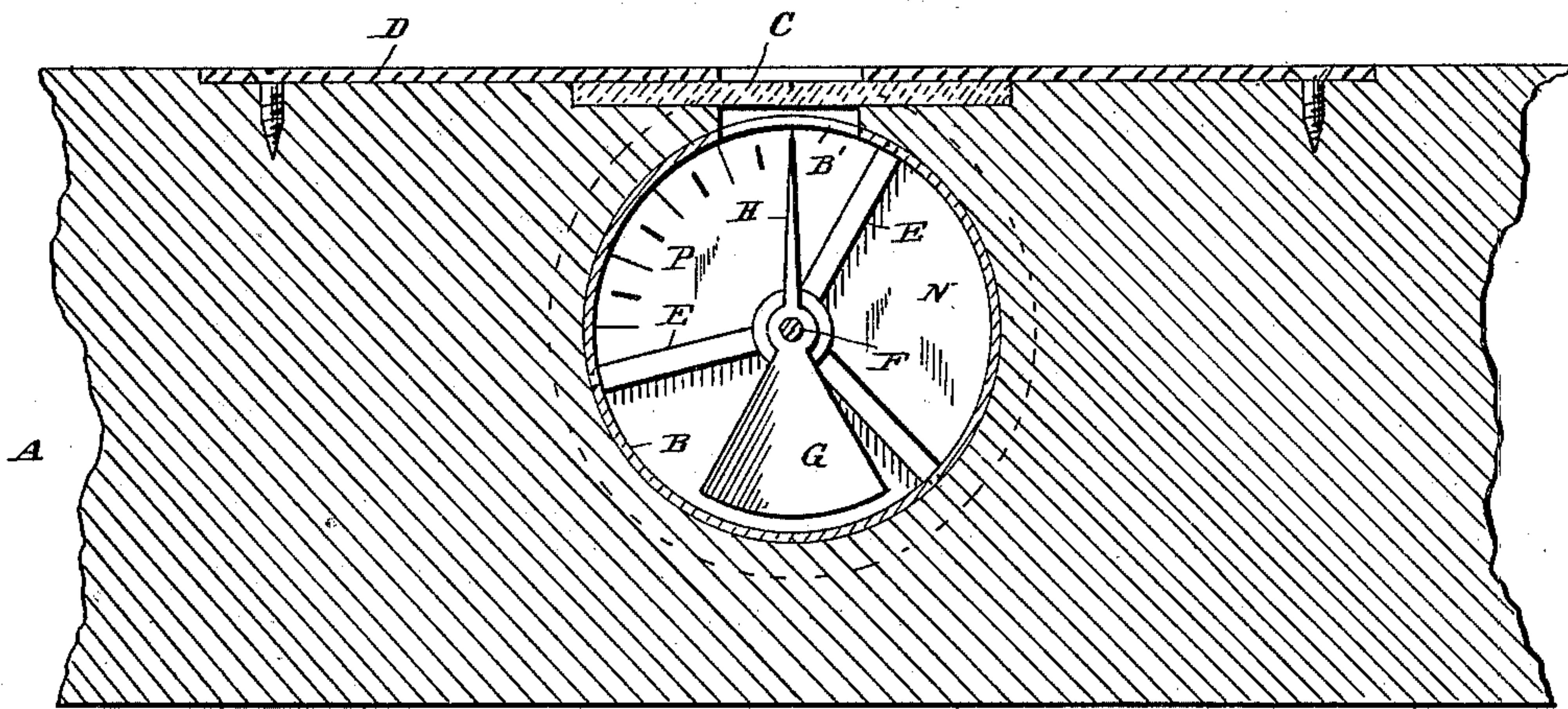
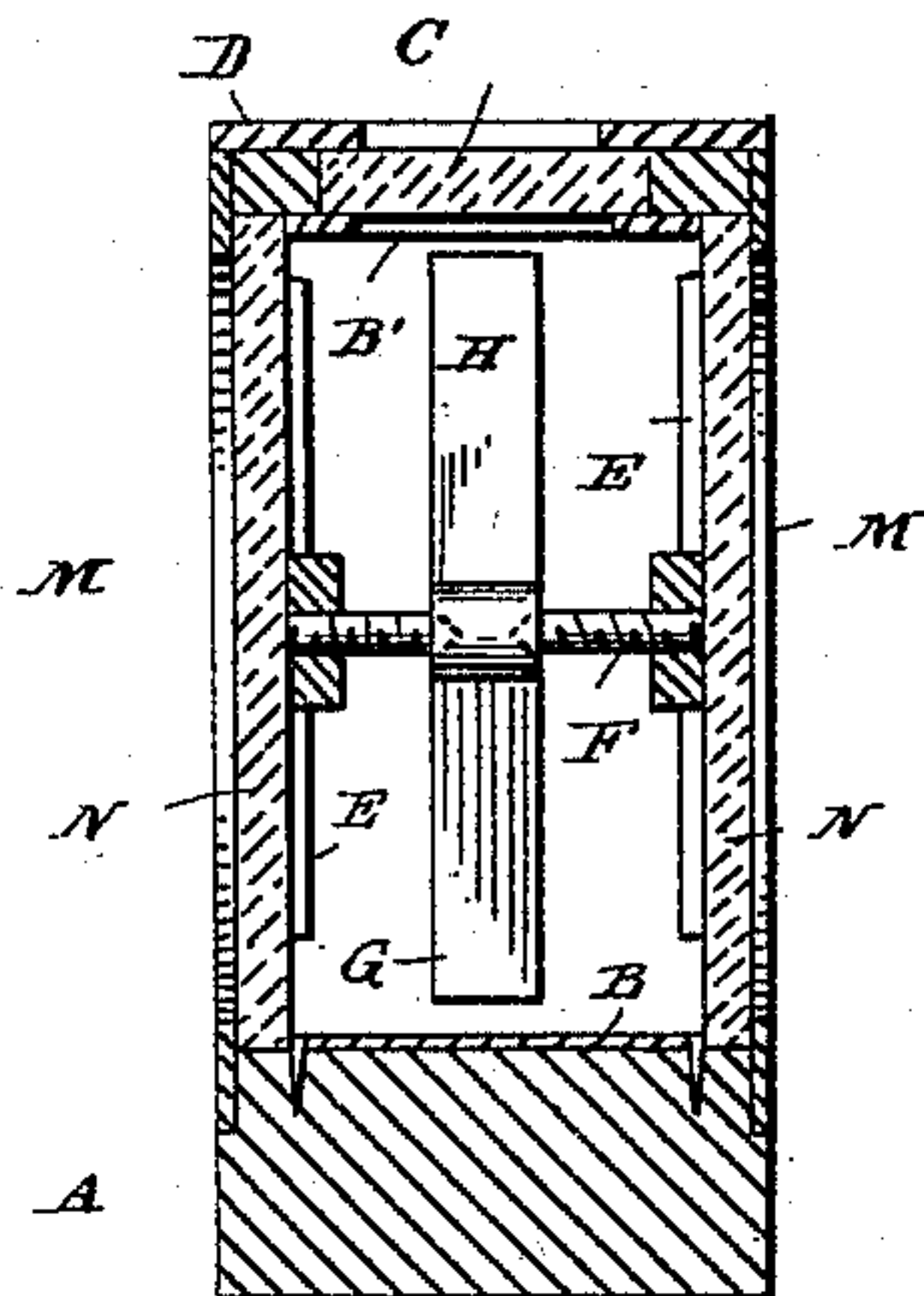


Fig. 2



Witnesses.

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LEVEL.

SPECIFICATION forming part of Letters Patent No. 277,842, dated May 15, 1883.

Application filed March 2, 1883. (Model.)

To all whom it may concern:

Be it known that we, JAMES T. KETCHLEDGE and RUDOLPH J. PEPPER, citizens of the United States, residing at Sidney, in the
5 county of Shelby and State of Ohio, have invented certain new and useful Improvements in Levels, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain new and useful improvements in plumb-levels; and it has for its objects to provide an instrument which will be cheap and simple in construction, and in which the working parts will be
15 all inclosed and protected from the weather, as more fully hereinafter specified. These objects we attain by the means illustrated in the accompanying drawings, in which—

20 Figure 1 represents a longitudinal vertical sectional view of our improved instrument, and Fig. 2 a transverse sectional view thereof.

The letter A indicates the usual bar or frame, of wood, metal, or other material, which is provided with a circular transverse recess extending from side to side, midway between the
25 two ends. Within said recess is located a sheet-metal band or lining, B, which has an opening in the top, as indicated by the letter B'. There is also a similar opening through
30 the top, which is closed by a sheet of glass, C, held in place by means of a metallic plate, D, having an opening, also, in order that the plumb-lever may be viewed from above.

35 To the opposite sides of the band B are secured the frames E, which at their centers are provided with pointed screws F, between which the plumb-lever G is pivoted. The said lever

at one end is pointed or formed with an indicator, H, and the lower end is weighted, as indicated.

40 On opposite sides of the bar A are formed recesses L, for the reception of the metallic rings M, which are for the purpose of confining the glass disks N in place, so as to form a transparent inclosure for the central recess. 45 The disks are provided with graduations P, in the form of a quadrant, upon their faces, so that any angle at which the instrument may be set will be indicated.

Having thus described our invention, what we 50 claim, and desire to secure by Letters Patent, is—

In combination with the frame A, provided with a circular transverse recess, the metal band or lining B, provided with an opening 55 at the top, the frames E, secured to opposite edges of said band or lining, the pointed screws F, secured to said frames, the plumb-lever G, pivoted between said screws and having a weight and indicator, the graduated glass 60 disks setting in recesses in the bar A, the glass plate C, setting in a recess in the upper face of the bar over an opening in the lining and in said bar, and the confining-plate D and rings M, the whole arranged substantially as speci- 65 fied.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES T. KETCHLEDGE.
RUDOLPH J. PEPPER.

Witnesses:

ISAAC BETTS,
D. OLDHAM.