

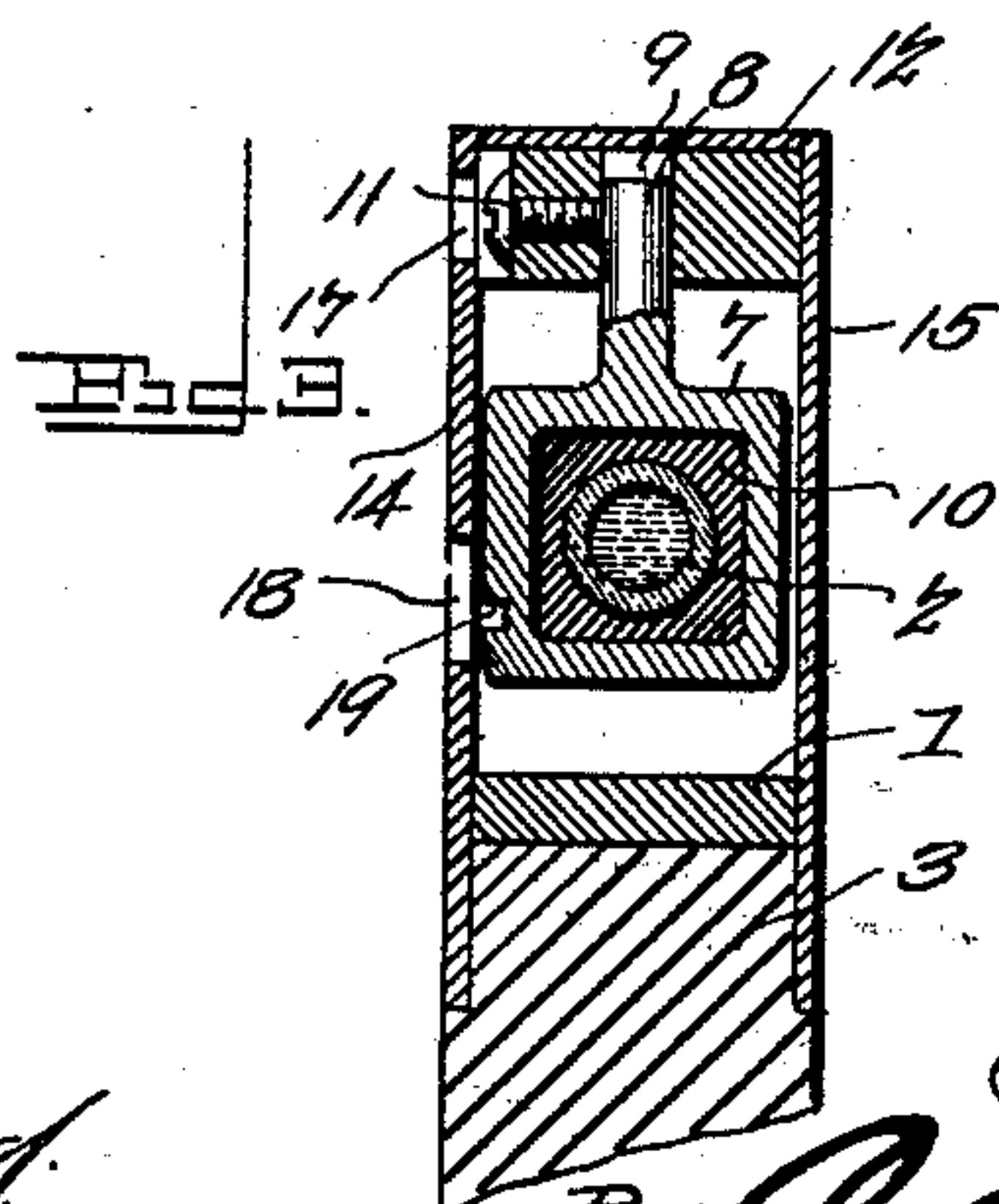
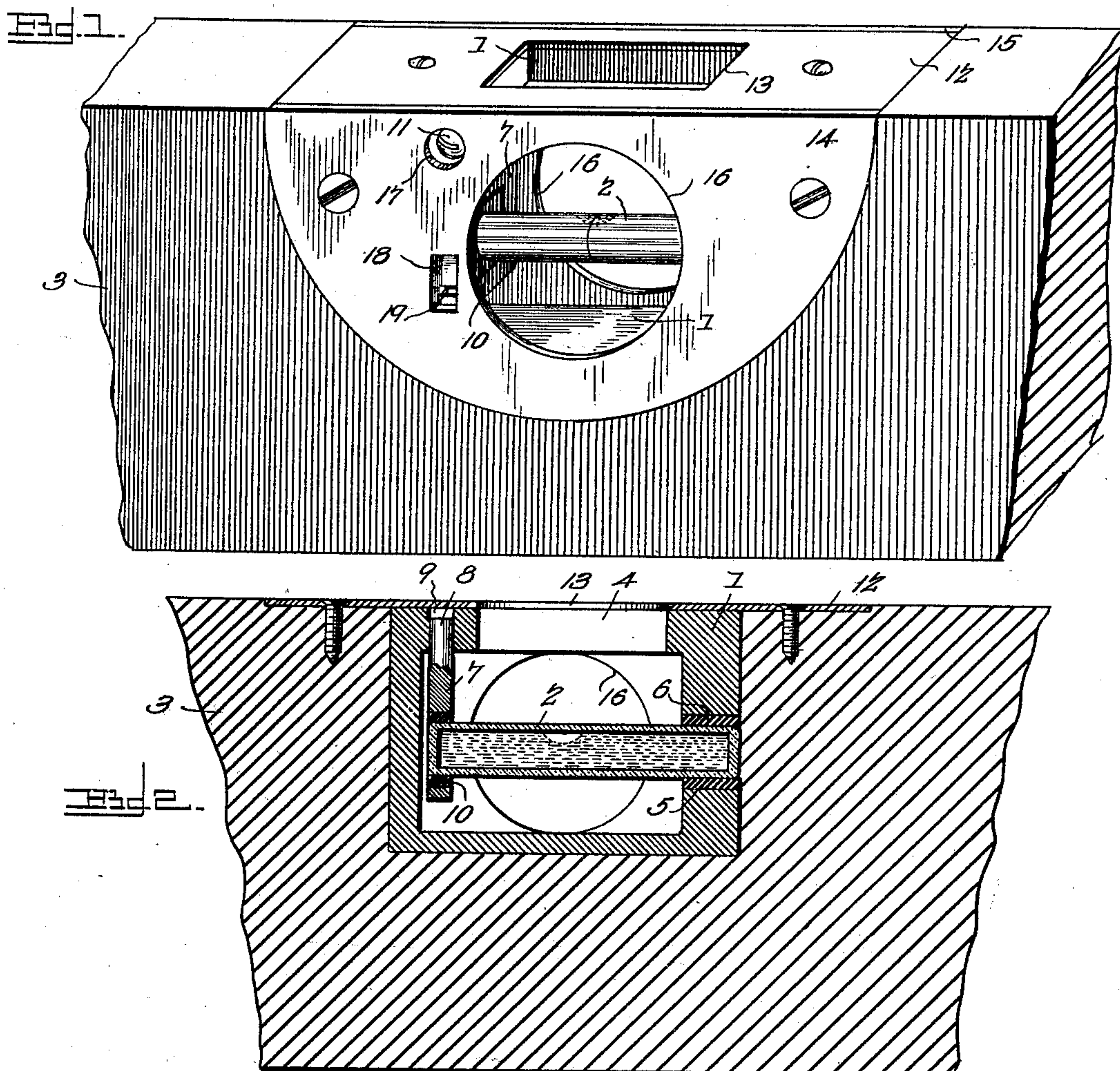
No. 676,330.

Patented June 11, 1901.

J. LEMLE.
SPIRIT LEVEL.

(Application filed Mar. 27, 1901.)

(No Model.)



Witnesses
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UNITED STATES PATENT OFFICE.

JACOB LEMLE, OF TOLEDO, OHIO.

SPIRIT-LEVEL.

SPECIFICATION forming part of Letters Patent No. 676,330, dated June 11, 1901.

Application filed March 27, 1901. Serial No. 53,092. (No model.)

To all whom it may concern:

Be it known that I, JACOB LEMLE, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have
5 invented a new and useful Spirit-Level, of which the following is a specification.

The invention relates to improvements in spirit-levels.

The object of the present invention is to improve the construction of spirit-levels, more especially the manner of mounting the level glass or vial, and to enable the latter to be readily adjusted vertically from the exterior and to cushion the same.

15 The invention consists in the construction and novel combination and arrangement of parts hereinafter fully described, illustrated in the accompanying drawings, and pointed out in the claims hereto appended.

20 In the drawings, Figure 1 is a perspective view of a portion of a level constructed in accordance with this invention. Fig. 2 is a longitudinal sectional view of the same. Fig. 3 is a transverse sectional view.

25 Like numerals of reference designate corresponding parts in all the figures of the drawings.

1 designates a rectangular frame receiving a level-glass or bubble-vial 2 and adapted to be mounted in the usual manner on a level 3, as clearly illustrated in Figs. 1 and 2 of the accompanying drawings; but it will be readily understood that the improvements are adapted to be applied to plumbs and other
35 tools. The rectangular frame 1, which is mounted in a recess of the level 3, is provided at its top with a sight-opening 4, and it has a circular aperture 5 at one end to receive one end of the bubble glass or vial and a cushion
40 for supporting the same. The cushion 6, which may be of any desired construction, is cylindrical and surrounds the adjacent end of the level glass or vial. The other end of the level glass or vial is arranged within a
45 vertically-adjustable support or hanger 7, consisting of a rectangular loop and a stem 8, extending upward from the loop and arranged in an opening or socket 9 of the top of the frame 1, as clearly shown in Figs. 2 and 3 of
50 the drawings. The rectangular loop of the hanger or support 7 receives a cushion 10, of

rubber or other suitable material, provided with a circular opening for the reception of the adjacent end of the level glass or vial. By cushioning the level glass or vial in this
55 manner the tool may be handled more or less carelessly without liability of breaking the said glass or vial. The stem, which extends upward in the opening or socket 9 of the frame 1, is engaged by a clamping-screw 11, 60 which holds the hanger or support at any desired adjustment. By loosening the clamping-screw the hanger or support may be raised or lowered, and by tightening it the level glass or vial will be secured at the desired ad- 65 justment.

The frame 1 is covered by top and side plates, the top plate 12 being provided with an opening 13, corresponding with the sight-aperture 4 and adapted to permit the level
70 glass or vial to be readily seen from the top. The side plates 14 and 15 are provided with apertures 16 to enable the level glass or vial to be seen from the side, and the side plate 14 is provided with upper and lower openings 75 17 and 18, the upper opening 17 being located opposite the clamping-screw and being adapted to permit a screw-driver to be readily introduced into the level for the purpose of manipulating the screw. The lower opening 80 18 is located opposite a notch 19 of the loop of the hanger or support, and it permits a screw-driver or other tool to be interlocked with the hanger or support, whereby the latter may be raised and lowered to set the level 85 glass or vial in proper position. After the level glass or vial is properly adjusted the clamping-screw is tightened. The side plates are shown segmental in Fig. 1; but when the device is mounted on a plumb or other tool 90 at a point between the edges of the same the side plates may be circular and the top plate may be omitted.

It will be seen that the spirit-level is exceedingly simple and inexpensive in construction; that it is effectively cushioned, and that
95 it is capable of adjustment from the exterior and at one side, so that the adjustment or adjusting devices will not interfere with the arrangement of the level glass or vial at any 100 point on a tool, either at the edge of the same or between the edges thereof.

What I claim is—

1. In a device of the class described, the combination with a stock or bar, of a frame, a glass or vial having one of its ends supported by the frame, the vertically-adjustable hanger having a supporting-loop receiving the other end of the glass or vial, said hanger being also provided with a stem guided on the frame, and a clamping device arranged at one side of the frame and engaging the said hanger, substantially as described.

2. In a device of the class described, the combination of a glass or vial, a frame provided with an opening receiving one end of the glass or vial, said frame being also provided at its top with an opening or socket, a hanger or support having a loop receiving the other end of the glass or vial, said hanger or support being provided with a stem fitting in the said socket or opening, a clamping-screw mounted on the frame and engaging the stem, and a side plate having an aperture arranged

opposite the clamping-screw, substantially as described.

3. In a device of the class described, the combination of a frame provided at one end with an opening and having a socket or opening at the top, a hanger or support fitting in the socket or opening and provided with a lower loop having a notch, a level glass or vial arranged in the end opening of the frame and in the loop of the hanger or support, a clamping device mounted on the frame and engaging the support or hanger, and a side plate having apertures located opposite the notch and the clamping device, 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.

JACOB LEMLE.

Witnesses:

FREDERICK C. SCHAAL,
FREDERICK C. LEMLE.