

No. 621,358.

Patented Mar. 21, 1899.

N. C. MERRILL.

LEVEL.

(Application filed Mar. 10, 1898.)

(No Model.)

FIG. 1.

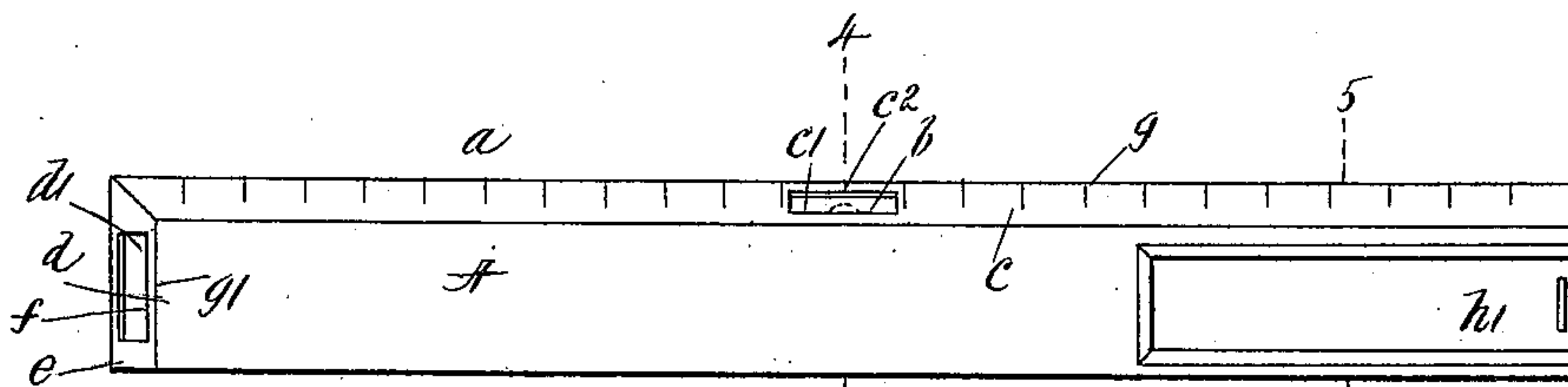


FIG. 2.

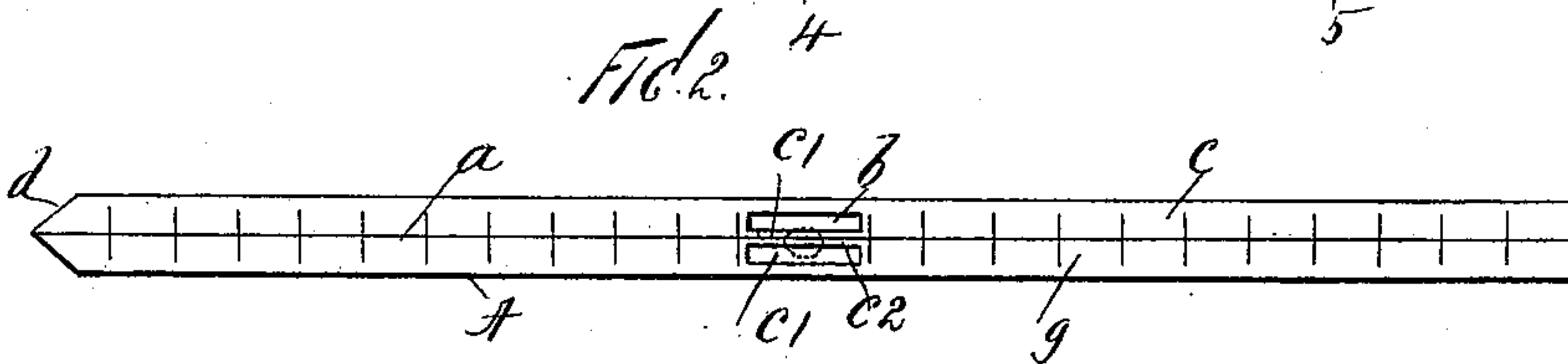


FIG. 3.

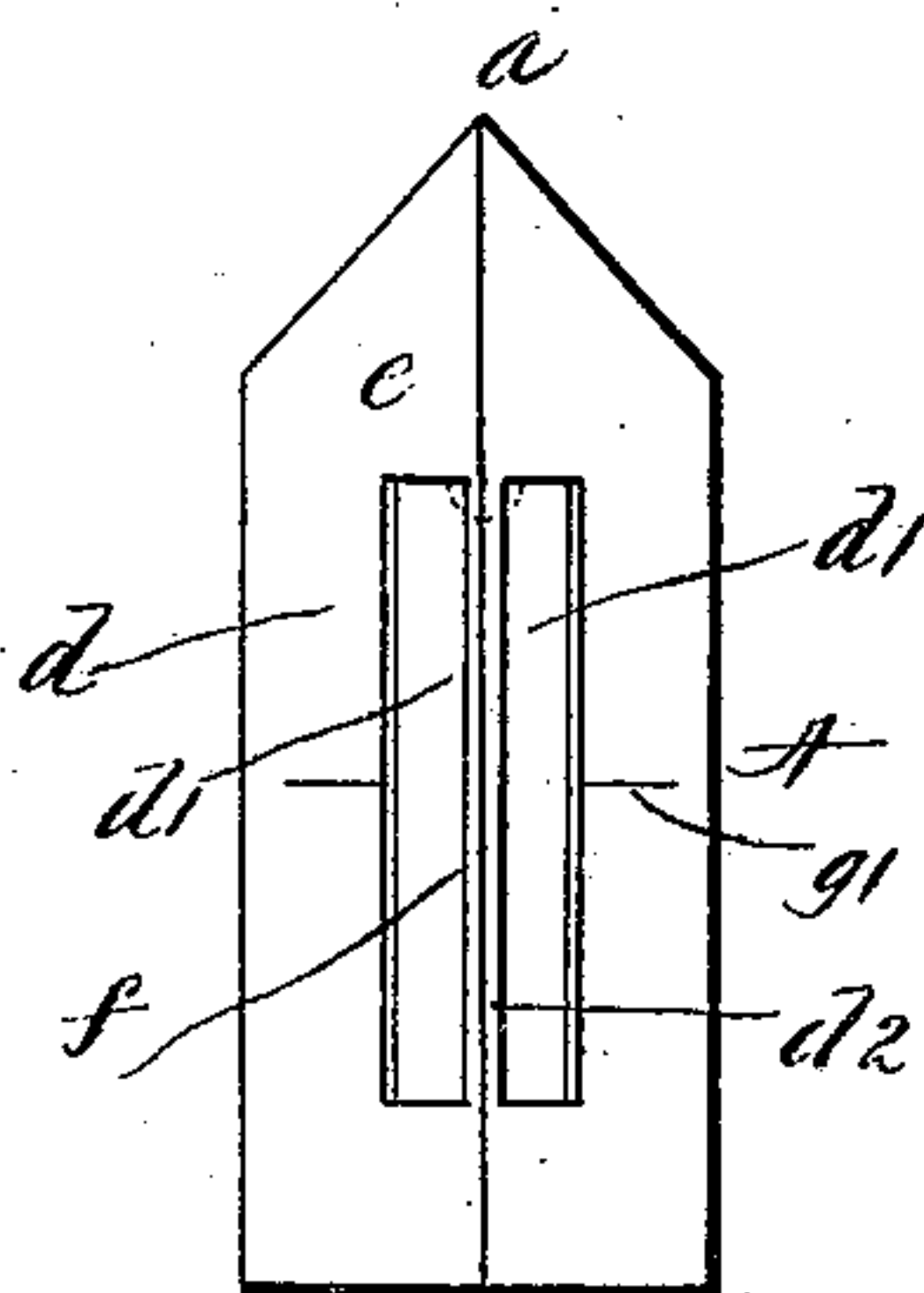


FIG. 4.

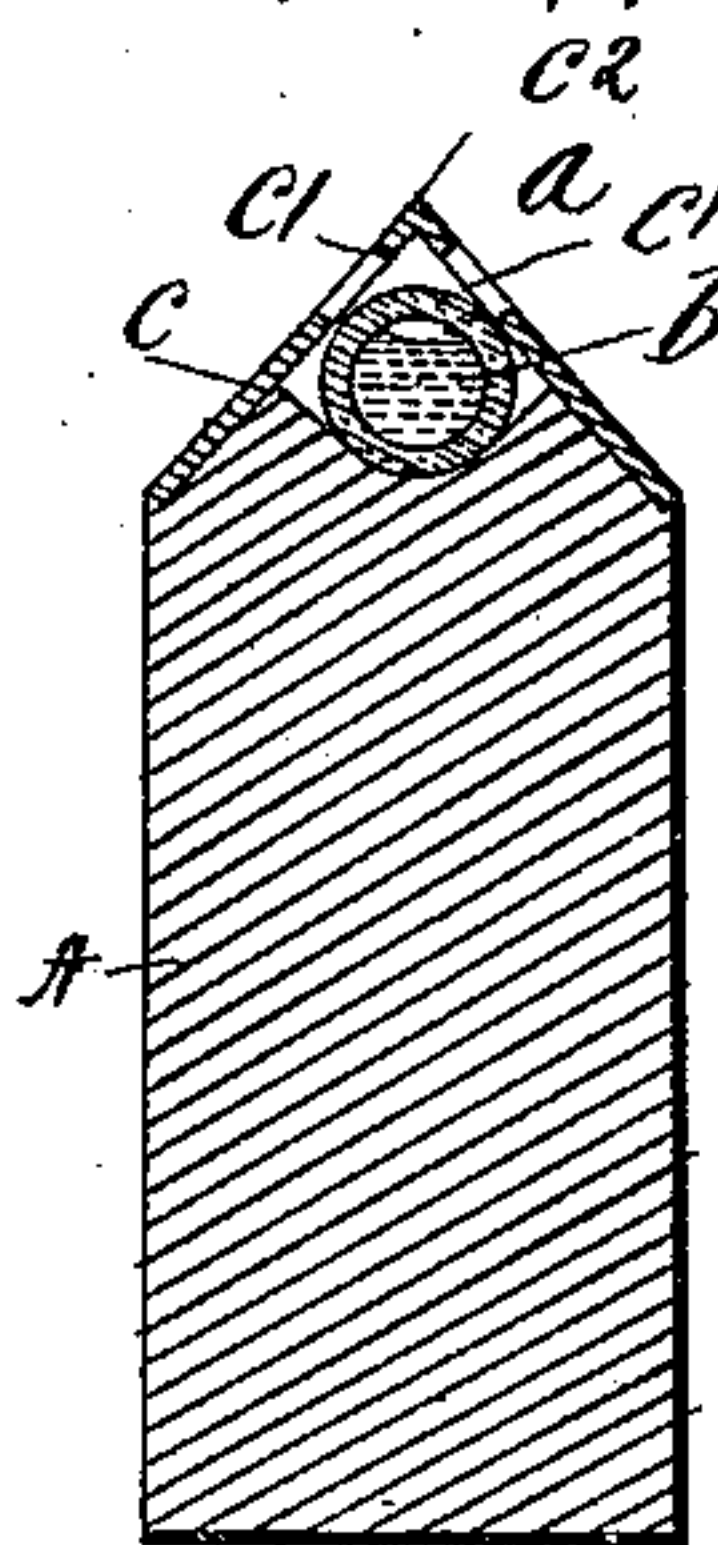
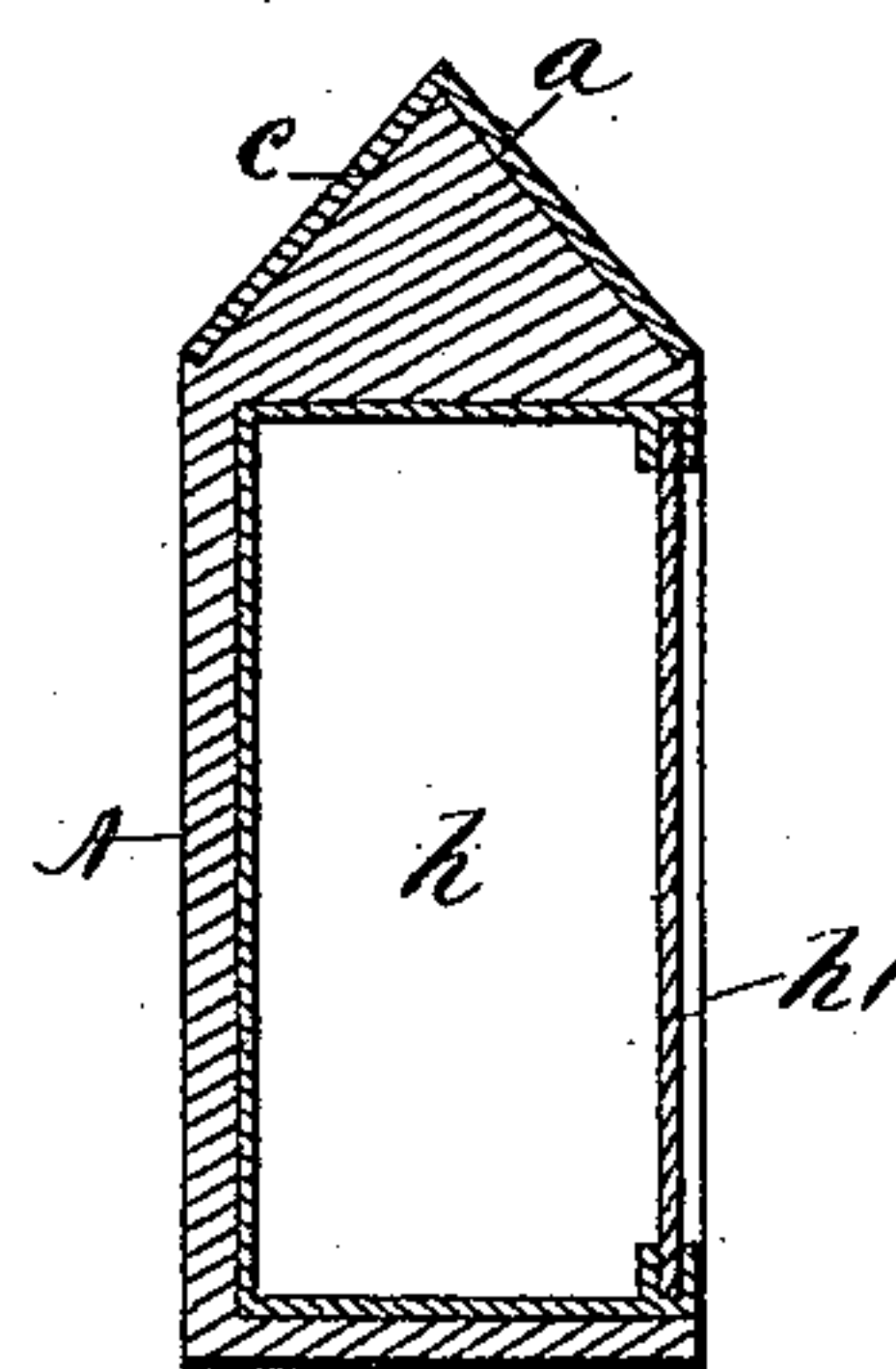


FIG. 5.



WITNESSES

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NATHANIEL C. MERRILL, OF NEW YORK, N. Y., ASSIGNOR TO THE UNCLE SAM NOVELTY COMPANY, OF PROVIDENCE, RHODE ISLAND.

LEVEL.

SPECIFICATION forming part of Letters Patent No. 621,358, dated March 21, 1899.

Application filed March 10, 1898. Serial No. 673,393. (No model.)

To all whom it may concern:

Be it known that I, NATHANIEL C. MERRILL, a citizen of the United States, residing at New York, in the county of New York and State of New York, have invented certain new and useful Improvements in Levels, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

This invention relates to levels; and it has for its object to provide a simple and improved device or tool of this character in which the level-bead can be more readily seen in operation and which will also provide a combined tool adapted for various purposes.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by the same letters of reference in each of the views, and in which—

Figure 1 is a side view of a level embodying my improvements. Fig. 2 is an edge view of the same. Fig. 3 is an end view. Fig. 4 is a transverse sectional view taken on the line 4 4, Fig. 1; and Fig. 5 is a transverse sectional view taken on the line 5 5, Fig. 1.

Referring to the drawings, A designates the stock of the level, which is provided with a V-shaped edge *a*, in the apex of which is set a spirit-level *b*, the plane of said level being beneath the apex of said V-shaped edge, so that the level is protected and housed by the latter. In carrying out my improvements said V-shaped edge is preferably reinforced by a longitudinal V-shaped plate *c*, conforming to and secured over the V-shaped edge *a* of the stock and provided at opposite points in its sides with slots or openings *c'*, extending in a longitudinal plane at the spirit-level *b*, the apex or point of said plate at its slotted portion forming a protective rib *c²*, extending over the spirit-level.

By means of the improved construction and arrangement as above set forth the spirit-level is entirely protected, and the bubble may be more readily seen in operation by reason of the fact that in viewing the spirit-level from either side there is always a light

background formed by the slot *c'* at the opposite side in lieu of the dark background which is usual in spirit-levels as ordinarily constructed.

It will be noted that the double slotting of the V-shaped edge forms a transverse opening extending through the edge or portion of the level at the level-bead, so that the rays of light will pass through the spirit-level.

The protective plate *c* may be marked with a series of graduations, as at *g*, so that the device can be used as a rule, in which connection the V-shaped contour of the edge forms a continuous ruling-point at its apex. The end of the stock at right angles to the main edge is also preferably V-shaped, as at *d*, and may be covered by a corresponding V-shaped metallic plate *e*, which may be separated from or integral with the main protective plate *c*. The end *d* of the stock is likewise provided with a spirit-level *f*, the plate *d* being similarly provided with opposite slots or openings *d'* and with the protective rib *d²*. The end plate *f* may be suitably marked or graduated, as at *g g'*.

I preferably provide in the end portion of the stock opposite the end *d* and the spirit-level *f* a compartment *h*, adapted to contain pencils or other suitable instruments and closed by a sliding plate *h'*.

The operation and advantages of my invention will be readily understood by those skilled in the art to which it appertains.

The device or tool is adapted for a great variety of uses or purposes by reason of the arrangement of the spirit-levels at both the main edge *a* and the main edge *d* of the stock, the graduation of the edges, and the V-shaped contour thereof, and the visibility of the level-bubbles is greatly enhanced by the relative construction and arrangement by which the light-rays are enabled to pass through said level-beads and by which a light background is provided when the level-bead is viewed from either side.

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

1. An improved level, having a V-shaped edge in which is set a spirit-level, the plane

of said spirit-level being below the apex of said edge, said V-shaped edge furnishing a protective rib above said spirit-level substantially as and for the purpose set forth.

5 2. An improved level having a V-shaped edge portion provided with a slot in each face thereof, and a spirit-level tube seated within said edge portion intermediately between said slots or openings and in a plane below
10 the apex of said V-shaped portion, the apex of the latter furnishing an upper intermediate protecting-rib for said spirit-level substantially as shown and described.

15 3. An improved level comprising a stock having a V-shaped edge carrying a corresponding V-shaped plate and having slots in each side through said V-shaped plate, said

slots being approximately equidistant from the apex of said V-shaped plate and on opposite faces of said V-shaped edge, said V- 20 shaped plate forming a protective ridge above and between said slots, in combination with a spirit-level arranged within said V-shaped edge and between said side slots, and beneath the protective ridge of said plate, substan- 25 tially as and for the purpose set forth.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 8th day of March, 1898.

NATHANIEL C. MERRILL.

Witnesses:

L. M. MULLER,

M. A. KNOWLES.