(No Model.)

F. SCHEFOLD.

SPIRIT LEVEL.

No. 453,329. Patented June 2, 1891.

Fig. 1.

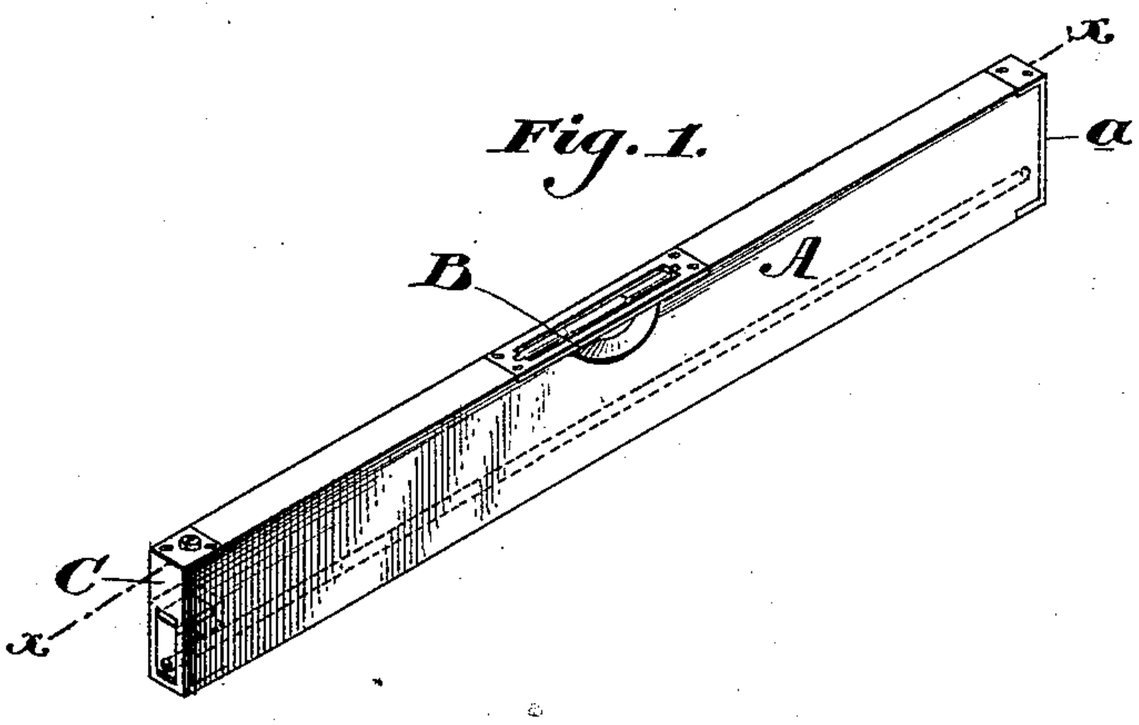

Fig. 2.

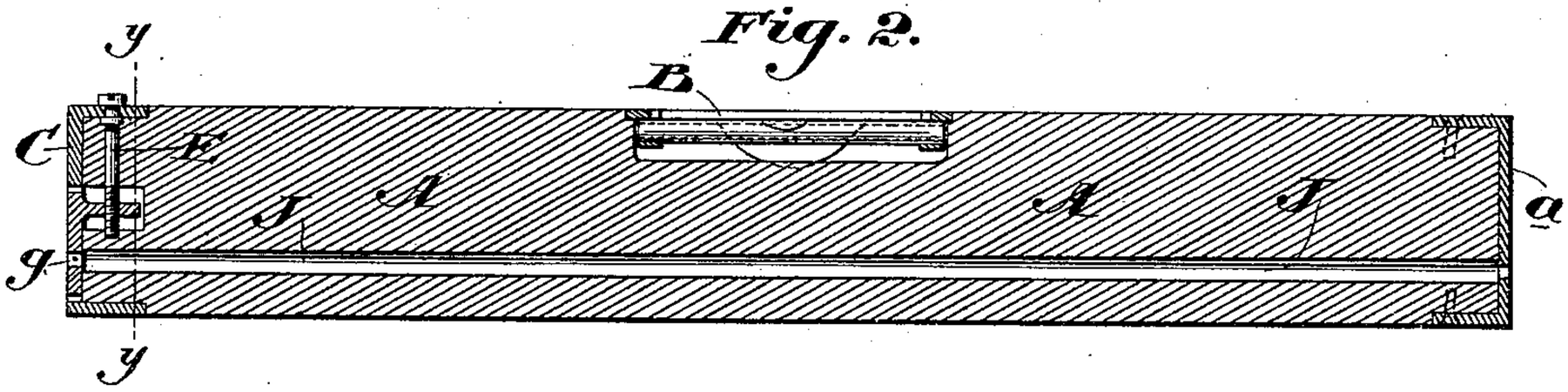

Fig. 3.

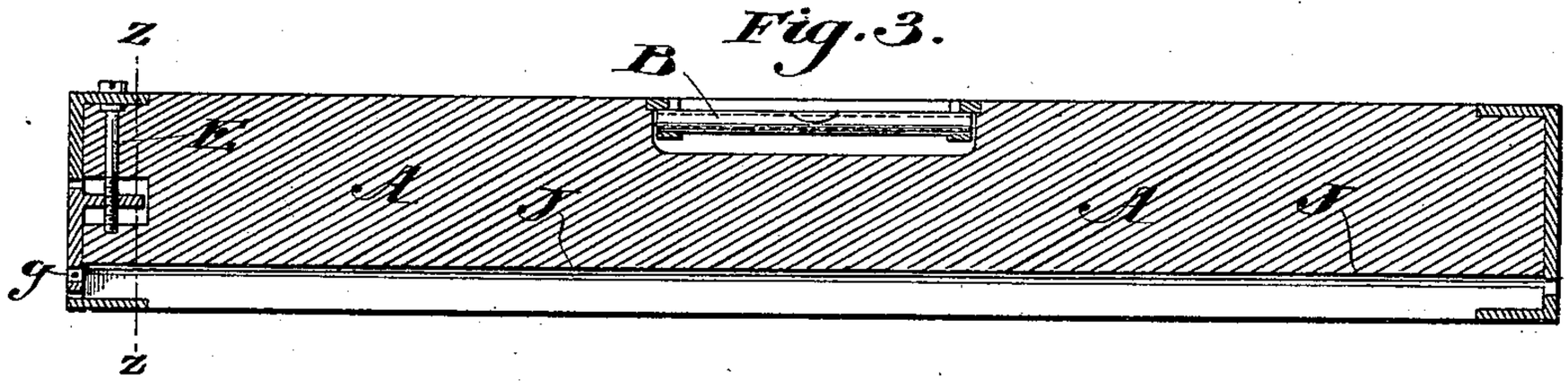

Fig. 4.

FIG. 6.

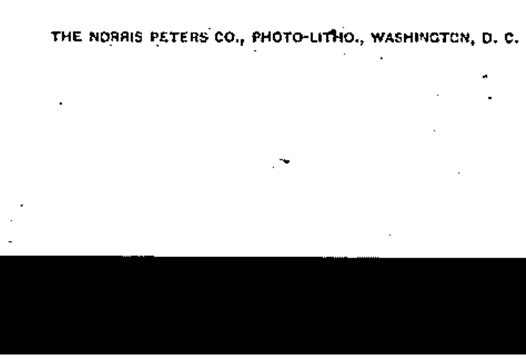

Fig. 5.

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FRANK SCHEFOLD, OF NEW ALBANY, INDIANA.

SPIRIT-LEVEL.

SPECIFICATION forming part of Letters Patent No. 453,329, dated June 2, 1891.

Application filed October 16, 1890. Serial No. 368,278. (No model.)

To all whom it may concern:

Be it known that I, FRANK SCHEFOLD, a citizen of the United States, residing at New Albany, county of Floyd, and State of Indiana, have invented a new and useful Improvement in Levels, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention consists, substantially, in an addition to the ordinary carpenter's level, so that different points may be leveled with the level so constructed, and it is adapted to many novel uses and possesses many advantages.

In the drawings, Figure 1 is a perspective view of my improved level. Fig. 2 is a longitudinal section on line *x x*, Fig. 1. Fig. 3 is a view similar to Fig. 2 of a modified form of device. Fig. 4 is a section on line *y y*, Fig. 2. Fig. 5 is a section on line *z z*, Fig. 3. Fig. 6 is a detached perspective view of end of level.

A is the ordinary frame of a carpenter's level, being provided with the plate *a* to strengthen said frame.

B is the liquid-reservoir, provided with the air-bubble, as in the ordinary carpenter's level.

C is a sight-frame secured to the end of the level, the inner face of said sight-frame being grooved out to form ways or guides *c c*, (see Fig. 6,) and the sight-plate D, Fig. 6, rests in and is adapted to slide on these ways or guides. A set-screw E passes through the orifice *f* in the frame C, and its threaded end works in the threaded orifice *d* in the sight-plate D, so that by turning said screw the sight-plate may be adjusted up and down.

G is the sight-hole in the sight-plate D, across which is secured a wire *g*, as in an ordinary sight.

The sight-frame C is secured to the level-frame by screws or other devices passing through the orifices $h\,h'\,h^2\,h^3$ into the frame A. Through the frame A the orifice J is formed. This orifice J may be formed as shown in Figs. 2 and 4, where it is cut through the frame A above the bottom, or it may be formed, as in Figs. 3 and 5, by making an inset in the bottom of the level. The orifice J is in line with the sight in the sight-plate D. The screw E enables the sight-plate to be adjusted to proper position in case of warping or for any other reason.

The operation is as follows: When a carpenter desires to level up one piece of work with another or to find the level of one portion with reference to another, the level is set up in the position forming the basis of the leveling, and the operator, looking through the sight G, can find the desired level upon any other piece of work or judge the relative level of one with the other.

Having now fully described my invention, what I claim, and desire to protect by Letters Patent, is—

1. In an improvement in levels, in combination, a frame provided with a liquid-reservoir and an air-buble in said reservoir, an orifice through said frame, and a sight secured to the frame at one end of said orifice.

2. In an improvement in levels, in combination, a frame provided with a liquid-reservoir and an air-bubble in said reservoir, an orifice through said frame, and a sight secured to said frame so as to be adjustable relatively.

3. In an improvement in levels, in combination, a frame provided with a liquid-reservoir, an air-bubble in said reservoir, an orifice through said frame, a sight-frame secured to said frame, and a sight-plate provided with a sight-hole secured to said frame.

4. In an improvement in levels, in combination, a frame provided with a liquid-reservoir, an air-bubble in said reservoir, an orifice through said frame, a sight-frame secured to said frame, a sight-plate provided with a sight-hole secured to said frame, and means, substantially as described, to move said sight-plate vertically.

5. In an improvement in levels, in combination, a frame provided with a liquid-reservoir, an air-bubble in said reservoir, an orifice through said frame, a sight-frame, as C, guides in said frame, a sight-plate provided with a sight-hole resting in said guides, a threaded orifice in said guide-plate, and a screw which passes through said sight-frame and the threaded orifice in said guide-plate.

In testimony of which invention I have hereunto set my hand.

FRANK SCHEFOLD.

Witnesses:

JOHN F. MERKER,

D. D. BLANCHARD.