

(No Model.)

P. L. FOX.
SPIRIT LEVEL.

No. 370,054.

Patented Sept. 20, 1887.

Fig. 1.

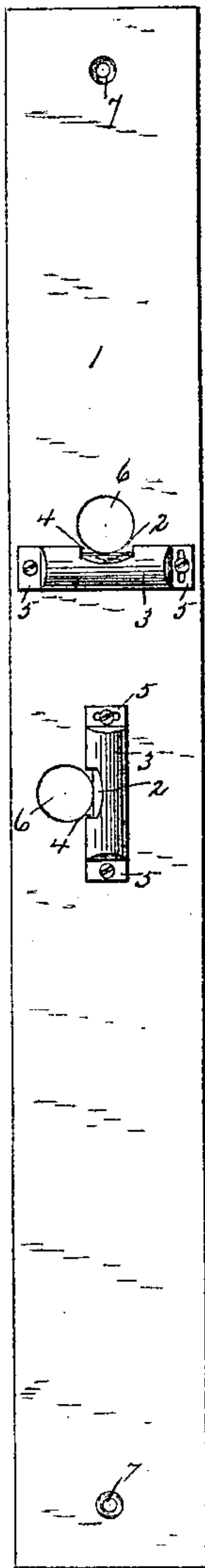


Fig. 2.

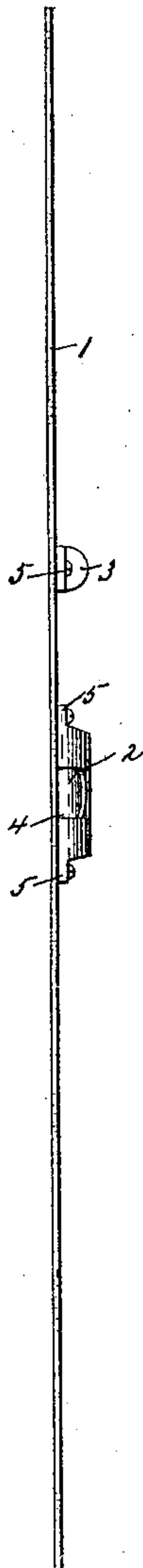
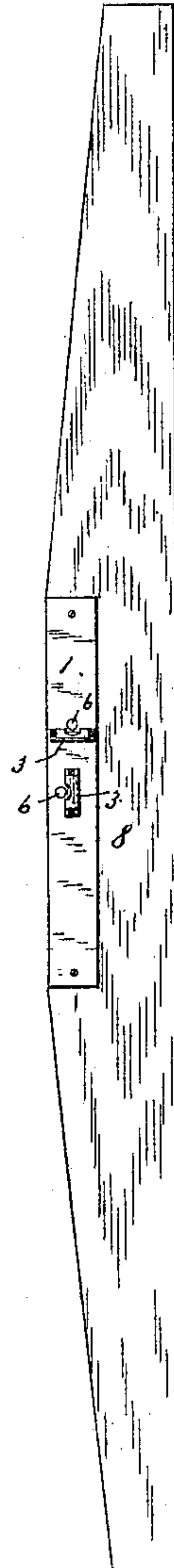


Fig. 3.



Witnesses:
E. D. Smith
C. C. Ruggles

Inventor
Philos L. Fox
By J. M. Wooster
Atty.

UNITED STATES PATENT OFFICE.

PHILO L. FOX, OF BRIDGEPORT, CONNECTICUT.

SPIRIT-LEVEL.

SPECIFICATION forming part of Letters Patent No. 370,054, dated September 20, 1887.

Application filed June 28, 1887. Serial No. 242,755. (No model.)

To all whom it may concern:

Be it known that I, PHILO L. FOX, a citizen of the United States, residing at Bridgeport, in the county of Fairfield and State of Connecticut, have invented certain new and useful Improvements in Plumbs and Levels; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its object to simplify and cheapen the construction, reduce the bulk and weight, increase the durability, and to greatly improve the operation of this class of devices in use. With these ends in view I have devised the simple and novel construction of which the following description, in connection with the accompanying drawings, is a specification, numbers being used to indicate the several parts.

Figure 1 is an elevation illustrating my improved device complete; Fig. 2, an edge view; and Fig. 3 is an elevation, on a greatly-reduced scale, illustrating the manner in which the device is attached to a long straight-edge for use in plumbing high walls or leveling portions of a structure at some distance from each other.

1 denotes a plain metallic plate, preferably made of steel; 2, spirit-vials, and 3 cases therefor, which are formed of suitable size to receive the vials, are provided with notches 4 to permit inspection, and lugs 5 at opposite ends, one of which is provided with a screw-hole and the other with a slot.

6 denotes holes through the plate to permit light to reach the vials and to permit the device to be used either side outward, and 7 screw-holes at the opposite ends of the plate, whereby it may be attached to a straight-edge.

So far as I am aware, all plumbs and levels as heretofore constructed have consisted of a case, either of wood or metal, into which the spirit-vials were recessed. The great weight and bulk of these levels have been a serious objection, as they were heavy to carry and occupied a great deal of room in a tool-box. As heretofore constructed, moreover, should a

spirit-vial become broken, it usually required an hour or two, often more, to adjust a new one for use.

By my present invention I simplify the construction, reduce the weight to the minimum, make the device so small that it may be easily carried, hardly any room being required, and at the same time greatly improve its operation in use. Should a spirit-vial become broken at any time, it requires but a moment's time to remove the case and put in a new one. The vial is held in place by two screws only, one of which passes through a slot, so that but an instant is required to adjust the new vial in place, and when once adjusted, by turning the screw down hard, it becomes impossible for the case to become moved in the slightest in use. When it is desired to plumb high walls or to level portions of a structure at some distance apart, it may be readily accomplished by attaching the plate to a straight-edge, 8, of any suitable construction, screw-holes 7 being provided for the purpose of securing the plate firmly in place.

Having thus described my invention, I claim—

1. A plumb and level consisting of a metallic plate, one or more spirit-vials, and cases therefor having notches 4 and lugs at opposite ends, one of said lugs having a screw-hole and the other a slot adapted to receive a screw, whereby the vial may be adjusted upon the surface of the plate.

2. A plumb and level consisting of a plate having holes 6 and screw-holes 7, whereby it may be attached to a straight-edge, one or more spirit-vials having notches 4, and one or more cases therefor having lugs at opposite ends, one of said lugs having a screw-hole and the other a slot to receive a screw, whereby it is adjustably secured to the surface of the plate, as and for the purpose set forth.

In testimony whereof I affix my signature in presence of two witnesses.

PHILO L. FOX.

Witnesses:

A. M. WOOSTER,
C. E. RUGGLES.