

T. W. RIDPATH.
COMBINATION LEVEL AND FLASH LIGHT LAMP.
APPLICATION FILED APR. 26, 1915.

1,177,211.

Patented Mar. 28, 1916.

Fig. 1.

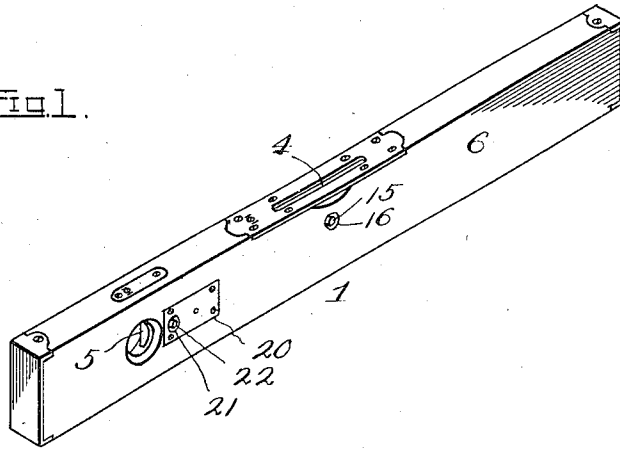


Fig. 2.

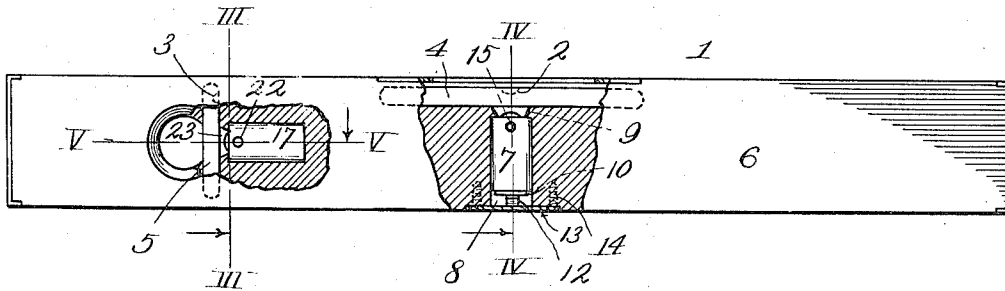


Fig. 3.

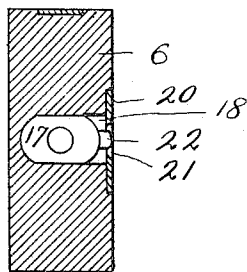


Fig. 4.

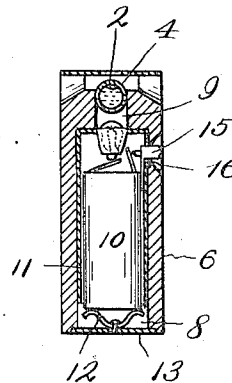
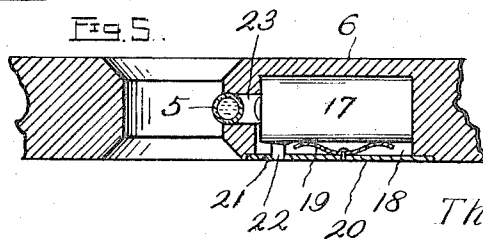


Fig. 5.



WITNESSES:

R. Hamilton
Wred E. Fischer

INVENTOR:

Thomas W. Ridpath

BY

F. G. Fischer
ATTORNEY,

UNITED STATES PATENT OFFICE.

THOMAS W. RIDPATH, OF KANSAS CITY, MISSOURI.

COMBINATION LEVEL AND FLASH-LIGHT LAMP.

1,177,211.

Specification of Letters Patent.

Patented Mar. 28, 1916.

Application filed April 26, 1915. Serial No. 23,963.

To all whom it may concern:

Be it known that I, THOMAS W. RIDPATH, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Combination Levels and Flash-Light Lamps, of which the following is a specification.

My invention relates to a combination spirit level and electric flash light lamp, and my object is to provide a device of this character in which the air bubbles of the level can be easily and accurately read in dark places.

The invention is of especial advantage to carpenters, stone and brick masons, and others having occasion to work in cellars, sewers, and other dark places, and in order that the invention may be fully understood, reference will now be made to the accompanying drawing, in which:

Figure 1 is a perspective view of the invention. Fig. 2 is a side elevation thereof partly in section. Fig. 3 is a vertical cross section through line III—III of Fig. 2. Fig. 4 is a vertical cross section through line IV—IV of Fig. 2. Fig. 5 is a broken horizontal section on line V—V of Fig. 2.

1 designates the level, which has an air bubble 2 for locating horizontal surfaces and an air bubble 3 for locating vertical surfaces when the level is employed as a plummet. The air bubbles 2 and 3 are located within transparent liquid-containing tubes 4 and 5, respectively, embedded within the stock 6 of the level and arranged at right angles to each other.

7 designates an electric flash light lamp arranged beneath the tube 2 in a recess 8 in the stock 6. The recess 8 communicates with a flaring opening 9, which directs the rays of light from the lamp 7 through the intermediate portion of the tube 4, so that the air bubble 2 can be readily located when it is midway, or approximately midway of the ends of said tube 4.

The lamp battery 10 is held in the lamp case 11 by a bow spring 12, secured to a retaining plate 13, closing the lower end of the recess 8 and held in place in the underside of the stock 6 by screws 14.

The lamp 7 is provided with a push-button 15 projecting through an aperture 16 in one side of the stock 6, where it can be readily operated when it is desired to illuminate the intermediate portion of the tube 4. When a battery 10 becomes exhausted it can be readily removed and replaced by another after taking off the retaining plate 13.

The intermediate portion of the tube 5, like the tube 4, may be illuminated by an electric flash lamp 17, arranged in a recess 18 in the stock 6. The lamp 17 is firmly held within the recess 18, so that it cannot shake around therein by a bow spring 19, secured to a retaining plate 20, suitably secured to the adjacent side of the stock 6. The retaining plate 20 has an opening 21 therein through which a push-button 22, for closing the circuit of the lamp 17, projects. The recess 18 communicates with an opening 23 leading to the tube 5, so that rays of light projected from the lamp 17 may pass through said tube to locate the air bubble 3 therein as it approaches a point midway between the ends of the tube 5.

From the foregoing description, it is apparent that I have produced a device of comparatively simple and inexpensive construction and well adapted for the purpose intended, and while I have shown and described the preferred form of my invention, I reserve the right to make such modifications as properly fall within the spirit and scope of the claim.

Having thus described my invention, what I claim and desire to secure by Letters Patent, is:

In combination with a level having a transparent bubble tube in one edge thereof and having a chamber extending through its opposite edge with a flared opening effecting communication between the tube and chamber, a lamp in said opening, a case for the lamp arranged transversely of the level and in the chamber and having a lateral opening, a lamp battery in the case, a push button extending through said lateral opening, a plate countersunk in said opposite edge of the level and closing the outer end of the chamber, the battery having

its outer end extending beyond the outer end of the lamp case, and a bow spring secured between its ends to the plate and having each of its ends free and operating in the part of the chamber beyond the battery and engaged with the outer end of the latter.

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

THOMAS W. RIDPATH.

Witnesses:

F. G. FISCHER,

L. J. FISCHER.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."