

W. BECKWITH.
PLUMB LINE HOLDER.

No. 174,892.

Patented March 21, 1876.

Fig. 1.

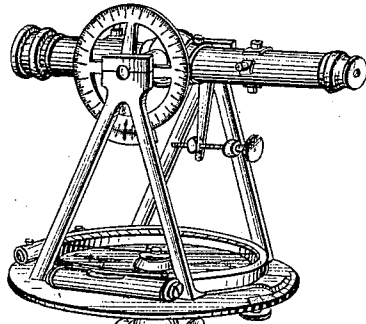


Fig. 2.

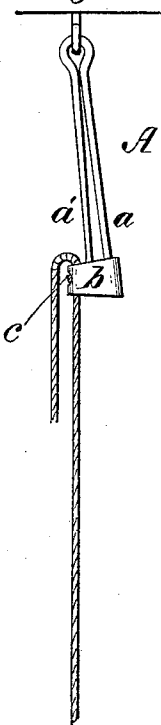
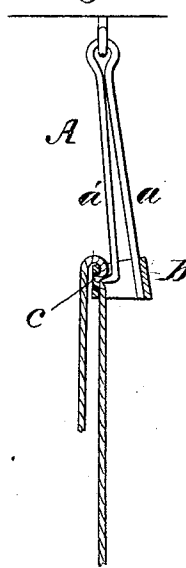


Fig. 3.



Witnesses:
Will H. Dodge.
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UNITED STATES PATENT OFFICE.

WARREN BECKWITH, OF GENEVA, WISCONSIN.

IMPROVEMENT IN PLUMB-LINE HOLDERS.

Specification forming part of Letters Patent No. **174,892**, dated March 21, 1876; application filed February 3, 1876.

To all whom it may concern:

Be it known that I, WARREN BECKWITH, of Geneva, in the county of Walworth and State of Wisconsin, have invented certain Improvements in Plumb-Line Holder, of which the following is a specification:

My invention consists in a spring-clip of peculiar construction for suspending and permitting the ready adjustment of plumb-lines.

In the use of transits, levels, and other similar instruments having a plumb-bob suspended thereunder, it is necessary to frequently lengthen and shorten the line in order to raise and lower the bob as required. Heretofore it has been customary to suspend the line from an eye on the under side of the instrument, and to secure or fasten it by tying it fast to the eye, an operation which required the use of both hands, and which, owing to the location of the eye between the supporting-legs of the instrument, was inconvenient and annoying.

My invention is intended to overcome these difficulties; and to this end it consists in suspending the line from the instrument by means of a peculiar spring-clip which permits an instantaneous adjustment of the line with one hand.

Figure 1 is a perspective view of an ordinary transit-compass, provided with my improvement; Fig. 2, a side view of the device; Fig. 3, a vertical section of the same.

A represents the device, consisting of a piece of spring-wire bent into an inverted U form, with the ends of its two arms *a a'* surrounded by a flattened elongated band, *b*,

which is fastened at one end to the arm *a*, and provided at the opposite end with a notch or recess *c* to receive the bent end of the arm *a'*, as shown. The line B is passed up through one end of the band *b*, outside of the free spring-arm *a'*, and is secured by the said arm pressing it into the notch *c*, as shown in Figs. 2 and 3.

When the line is to be adjusted, the operator, grasping the arms between the thumb and forefinger, presses them together, and thereby releases the line, which can then be readily adjusted as required by the remaining fingers of the same hand.

It is obvious that the precise form and arrangement of the arm and bands is immaterial, provided their operation remain unchanged.

Having thus described my invention, what I claim is—

1. A spring-clip, A, constructed substantially as shown and described, adapted for holding a plumb-line and permitting a ready adjustment of the same.

2. In combination with a transit, level, or equivalent instrument supported upon legs, a spring-clip, A, and plumb-line, B, arranged and operating as shown.

3. The spring-clip A, consisting of the spring arms *a a'*, having their ends surrounded by the band *b* provided with the hole or recess *c*.

WARREN BECKWITH.

Witnesses:

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