A. ERICKSON.

TAILOR'S LEVEL.

APPLICATION FILED JULY 12, 1909.

957,150. Patented May 3, 1910.

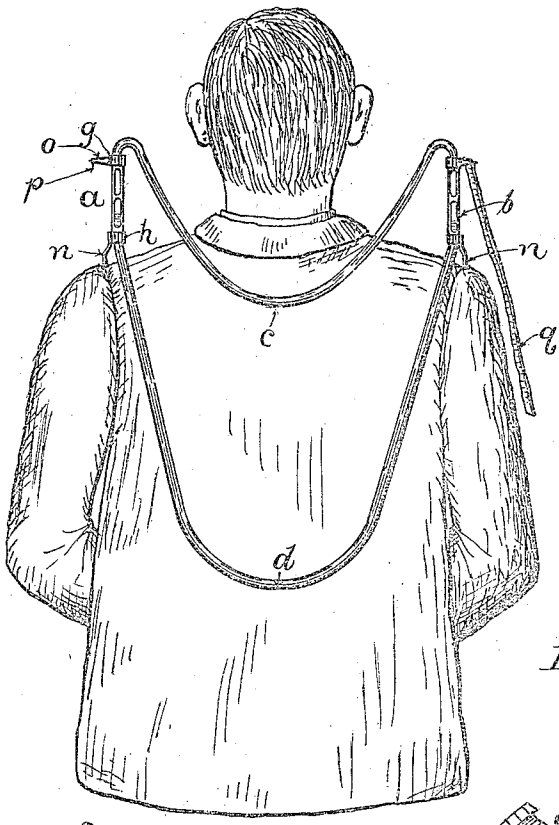


Fig. 1.

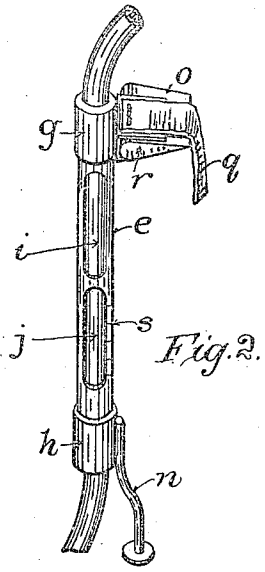


Fig. 2.

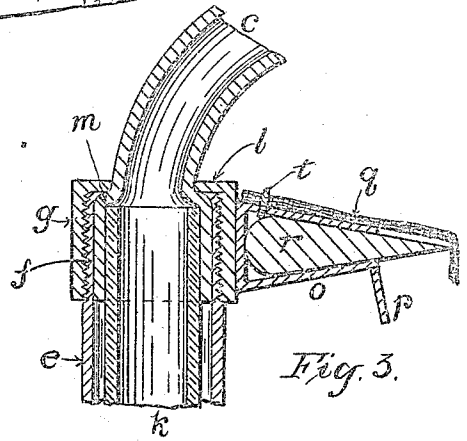


Fig. 3.

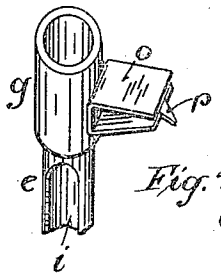


Fig. 4.

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# UNITED STATES PATENT OFFICE.

ANTON ERICKSON, OF PORTLAND, OREGON.

## TAILOR'S LEVEL.

957,150. Specification of Letters Patent. Patented May 3, 1910.

Application filed July 12, 1909. Serial No. 507,254.

*To all whom it may concern:*

Be it known that I, ANTON ERICKSON, a citizen of the United States, and a resident of Portland, in the county of Multnomah and State of Oregon, have invented a new and useful Improvement in Tailors' Levels, of which the following is a specification, reference being had to the accompanying drawings as constituting a part thereof.

This invention has for its object to provide means for facilitating the comparative measurements of the shoulders, the form, and the general carriage of the figure of the person measured for a suit of clothes; in other words, to provide means for enabling the cutter, in a tailoring establishment, to note the attitude of the person whose measure is taken, and to this end comprises the arrangement and combination of parts hereinafter fully set forth.

In the drawings: Figure 1 illustrates how my device is used in practice; Fig. 2 is a perspective side elevation of one of the pair of sight tubes used in my device, also showing portions of the flexible tubing connecting the upper and lower ends of the glass tubes of such sight tubes; Fig. 3 is a detail of the means provided for removably clamping in place the ends of the rubber tubing drawn over the glass tubes of the sight tubes; this figure shows the connections for the top-end of the glass tubes, but the connections for the bottom ends of the glass tubes would be substantially the same; and Fig. 4 is a perspective detail of the upper ends of one of the metal cases of my sight tubes.

I use two sight tubes, *a*, *b*, connected in series, as it were, with each other by rubber tubing *c*, *d*. I prefer to use mercury for the liquid of my level. By lifting the upper rubber tube *c* the mercury is instantly caused to drop into the lower rubber tube *d*, and will then properly indicate the levels in the sight tubes *a*, *b*. The sight tubes are placed on the shoulders, for example, as illustrated in Fig. 1, and if either shoulder is, in the normal carriage of the figure, elevated higher than the other, this characteristic will, of course, be immediately noted by the mercury in the glass tubes of the sight tubes *a*, *b*. The purpose of the upper connecting tube *c* is to enable the operator to lay my device on the table or put the same in the pocket, without danger of the mercury running out, which would be the case if the tops of the sight tubes *a*, *b* were opened.

The sight tubes of my level are conveniently made as seen by having reference to the details thereof Figs. 2, 3 and 4. Each comprises an outer metallic case *e*, the ends of which are provided with exterior threads *f*, on which are secured caps *g*, *h*. The metallic case has openings, *i*, *j*, cut away, and within the same is contained a glass tube *k*. Over the top and bottom ends of the glass tubes, contained in the sight tubes *a*, *b*, are drawn the rubber tubes *c*, *d*, and the ends of the latter are held against displacement by the screw-caps *g*, *h*, each of which has a perforated head *l* adapted to clamp the rubber tubes on the ends of the glass tubes, as shown at *m* in Fig. 3. The bottom caps *h* are each preferably made with a foot *n*, and the top caps *g* are each preferably made with a clamp-like chalk-holder as *o*, in each of which is held a piece of chalk *r*.

When I wish to use the chalk, held by either of the sight tubes *a*, *b*, for the purpose of marking, I hold one of the sight tubes at the point from which the comparative measurement is to be made, and then bring the other sight tube to another part of the garment and there make my chalk mark.

To the chalk-holder is fastened, by stitching *t*, for example, a tape *q*, which is convenient to enable one to make comparative measurements in coöperation with the graduations of the sight tubes *a*, *b*, each of the sight tubes being provided with suitable graduations either on the glass tubes or the outer case thereof. It is also convenient to have, on the chalk-holder, a pin point *p*, since, under some circumstances, it may be practical to temporarily fasten one of the sight tubes *a*, *b* to the garment.

My device is especially useful to note, for example, the depth of the armholes, and in fact, under any circumstances where two points, on different places of the garment, are to be brought to the same level. But it is unnecessary to go into further details of the utility of my device, since such will be self evident to every practical cutter.

I claim:

1. A leveling device comprising two sight tubes, flexible tubes connecting the top ends and the bottom ends of the two sight tubes with each other, means securing the flexible tube ends removably in place on the top and

bottom ends of the sight tubes, and a chalk-holder on one or both of the tubes.

2. A leveling device comprising two sight tubes, flexible tubes connecting the top ends and the bottom ends of the two sight tubes with each other, means securing the flexible tube ends removably in place on the top and bottom ends of the sight tubes, a pin provided on one or both of the sight tubes and adapted to fasten on a garment, and a chalk holder on one or both of the tubes.

3. A leveling device comprising two sight tubes, a foot on each of the tubes, flexible tubes connecting the top ends and the bottom ends of the two sight tubes with each other, means securing the flexible tube ends removably in place on the top and bottom ends of the sight tubes, a pin provided on one or both of the sight tubes and adapted to fasten on a garment, and a chalk holder on one or both of the tubes.

4. A leveling device comprising two sight tubes each consisting of a tubular metal case and a glass tube therein contained, a flexible tube connecting the top ends and a second flexible tube connecting the bottom ends of the glass tubes of the two sight tubes with each other, the ends of the metal case having exterior threads, caps on said threaded case ends, the heads of said caps being perforated and adapted to clamp in place the flexible tube ends on the ends of the glass tube within the case, and a chalk-holder on one of the caps.

5. A leveling device comprising two sight tubes each consisting of a tubular metal case and a glass tube therein contained, a foot on each of the tubes, a flexible tube connecting the top ends and a second flexible tube connecting the bottom ends of the glass tubes of the two sight tubes with each other, the ends of the metal case having exterior threads, caps on said threaded case ends, the heads of said caps being perforated and adapted to clamp in place the flexible tube ends on the ends of the glass tube within the case, and a chalk-holder on one of the caps.

6. A leveling device comprising two sight tubes each consisting of a tubular metal case and a glass tube therein contained, a foot on each of the tubes, a flexible tube connecting the top ends and a second flexible tube connecting the bottom ends of the glass tubes of the two sight tubes with each other, the ends of the metal case having exterior threads, caps on said threaded case ends, the heads of said caps being perforated and adapted to clamp in place the flexible tube ends on the ends of the glass tube within the case, a pin provided on the upper cap of the case, said pin being adapted to suspend the sight tube on a garment, and a chalk-holder on one of the caps.

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