

(No Model.)

E. KARSCHNER.  
SCALE MEASURE.

No. 526,448.

Patented Sept. 25, 1894.

Fig. 1

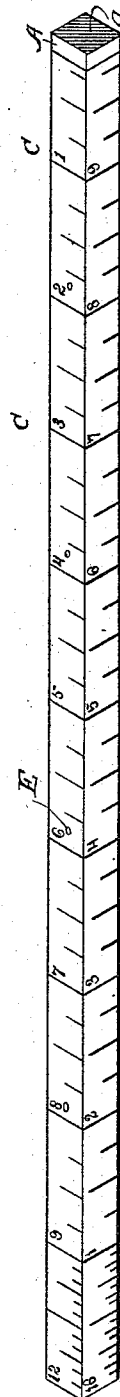


Fig. 3.

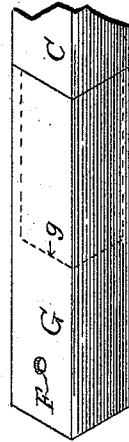
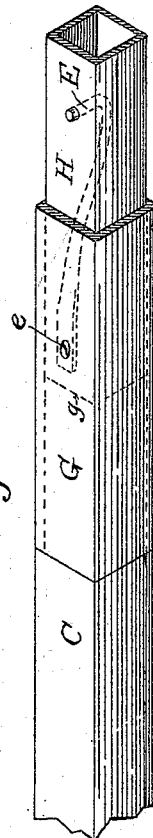


Fig. 2.



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# UNITED STATES PATENT OFFICE.

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## SCALE-MEASURE.

SPECIFICATION forming part of Letters Patent No. 526,448, dated September 25, 1894.

Application filed April 21, 1894. Serial No. 508,490. (No model.)

*To all whom it may concern:*

Be it known that I, ELMER KARSCHNER, a citizen of the United States, and a resident of Williamsport, Lycoming county, State of Pennsylvania, have invented certain new and useful Improvements in Scale-Measures; and my preferred manner of carrying out the invention is set forth in the following full, clear, and exact description, terminating with a claim particularly specifying the novelty.

This invention relates to measuring instruments, and more especially to that class thereof known as scale measures; and the object of the same is to effect certain improvements in measures of this character.

To this end the invention consists in the details of construction hereinafter more fully described and claimed, and as shown in the drawings, wherein—

Figure 1 is a perspective view of a ten-foot pole embodying my invention. Fig. 2 is an enlarged perspective detail of the male end of one member. Fig. 3 is a similar detail of the female end of another member.

Referring to the said drawings, each of the letters C designates a section preferably composed of wood or other light material, and preferably square or angular so as to produce corners such as are useful on measures of this character, although the number of flat faces possessed by the device is a matter of no great moment. There are preferably five of these sections, each being about two feet in length and marked on one or more faces with lines to indicate feet and inches; and to the outer extremities of the endmost sections are rigidly secured metal caps A having flat metal ends *a*, whereby the ends and corners of the measure are prevented from becoming rounded and worn in use. With the exception of said outer extremities, each end of the wooden body of each section is driven into and secured rigidly within a metal sleeve G which is preferably of brass and conforms with the shape of the body C—the latter extending about halfway through the sleeve and terminating at the dotted line *g* as best seen in Figs. 2 and 3. Into the outer end of the sleeve at one end of each section is passed a plug H which rests against the end of the wooden body C. This plug is itself tubular as seen in Fig. 2, and its exterior configuration

and its length are such that it will fit accurately within the sleeve G at the extremity of the section next adjacent. The letter E designates a latch located wholly within this hollow plug and having its body secured therein by a screw *e* extending through the sleeve and plug and also holding these parts rigidly but detachably connected, while its operative tip or end is normally projected outward through a hole in one face of the plug H at a point about midway between the outer ends of the sleeve G and plug H. In the corresponding side of the other sleeve G into which this plug is to pass, is formed a hole F of a size to receive the operative tip of the latch; but said tip does not project through this hole F so that it might interrupt the passage of a pen or pencil along and against the adjacent flat face of the entire measure. It will be obvious that it is necessary to have the tip E engage the hole F exactly at the moment that the outer ends of the two sleeves contact, so that the scales on the two connected sections will run past the joint and yet present an accurate measurement throughout their entire lengths.

I consider the specific manner of arranging the latch within the hollow plug and fastening it therein by a screw which also fastens the plug within the sleeve, to be a point of special advantage in this connection and in a device of this character. The plug is hollow throughout its entire length. Hence no dirt can accumulate therein, because the ordinary handling of the sections will dislodge it. The inner end of the plug rests firmly against the end of the wooden body whereby a forcible assembling of sections and sudden bringing of the ends of the sleeves together will not drive them onto the wooden parts, because the ends of the hollow plug just at this time come against the ends of the wooden parts as will be clear. Furthermore, the single screw *e* serves to connect the plug with the sleeve and also to hold the latch in place.

When not in use the several sections are disconnected and can obviously be stored in a space only two feet long or a trifle over two feet in length because the plugs H project beyond the actual ends of the sections. To bring this measure into operative condition, the plugs are properly inserted into the open

ends of the corresponding sleeves G until the operative ends of the latches strike the ends of the sleeves, the latches are depressed with the thumb, and the parts then pushed together until the ends of the metal sleeves strike each other, at which time the tip of each latch will automatically engage its proper opening F to lock the parts firmly together and the whole stick will form an accurate measure past all points of connection between the sections. To disconnect the parts it is only necessary to depress the tip of the latch E with the finger until it is moved out of engagement with the hole F.

When in use the tip of the latch stands exactly flush with the outer face of the sleeve around the hole F, and hence forms no obstruction to ruling or other uses to which the measure may be put. I do not limit myself to the application of this idea on ten-foot measures, to the making of the sections two feet in length, to the use of the device for feet and inches only, nor to the precise details of construction herein shown and described, as considerable change therein may be made without departing from the principle of my invention.

What is claimed as new is—

The herein described scale measure made in sections each consisting of a square wooden

body, square metallic sleeves rigidly secured on the ends of the body and projecting beyond the same, each section being of a predetermined length between the outer ends of its sleeves and the whole being marked exteriorly on its various faces with scales, a hollow metal plug fitting within the sleeve against the body at one end of the section and projecting beyond the outer end of the sleeve, a spring latch whose body stands wholly within the plug and whose operative tip projects normally through a hole in one side of the protruding end of the plug, and a single screw fastening the inner end of the latch within the plug and the latter within the sleeve, said plug being of a size to accurately fit the opposite sleeve of the complementary section and this sleeve being provided in one side with a hole so located as to receive the tip of the latch when the ends of the two metal sleeves contact but not to permit said tip to project beyond the flat outer face of the sleeve, as and for the purpose set forth.

In testimony whereof I have hereunto subscribed my signature on this the 16th day of April, A. D. 1894.

ELMER KARSCHNER.

Witnesses:

FRANK KESTER,  
G. C. COONS.