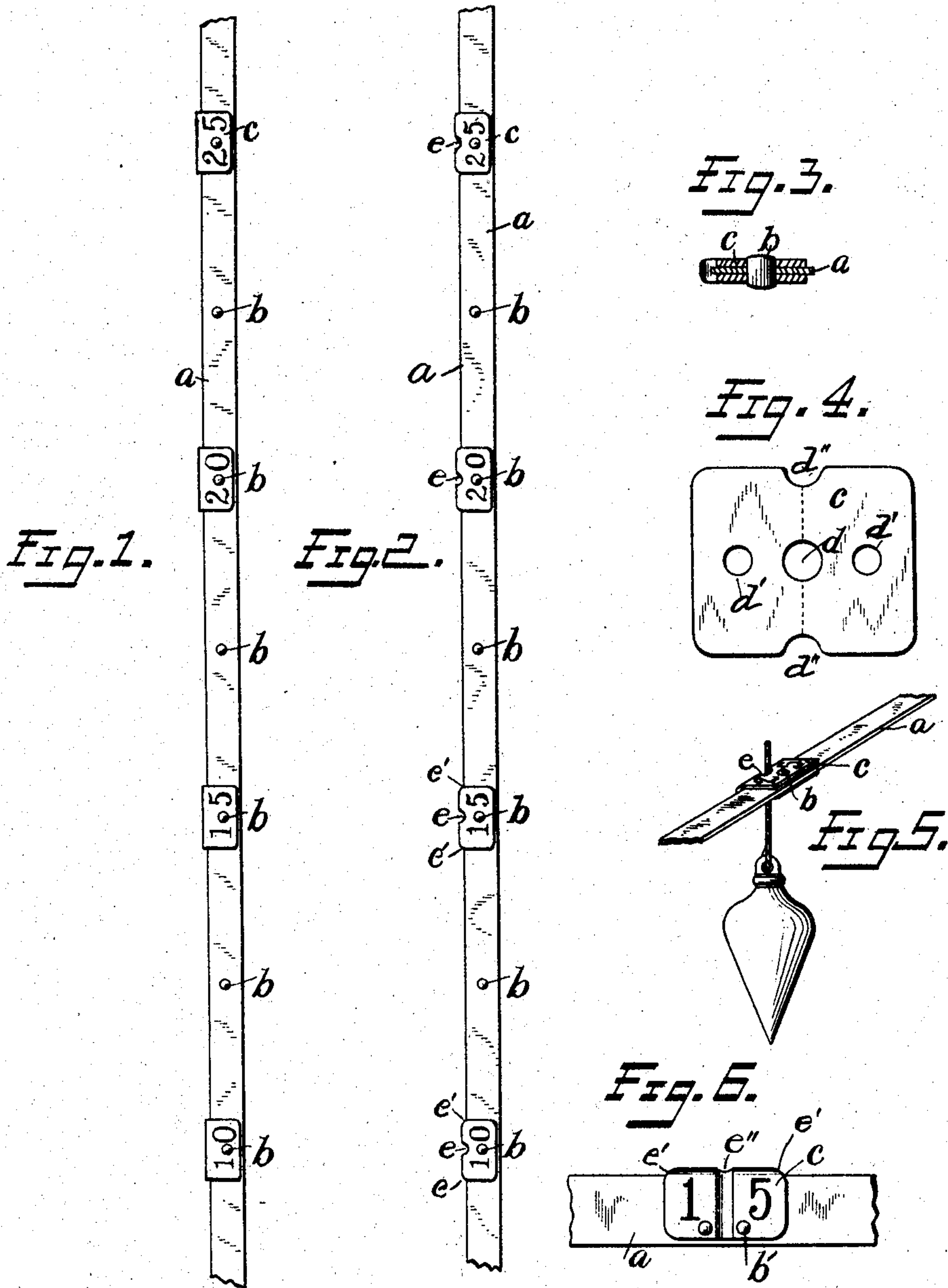


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W. L. E. KEUFFEL.
MARKER FOR SURVEYORS' TAPES.
APPLICATION FILED SEPT. 24, 1902.

NO MODEL.



Witnesses
J. B. McGivver
Herman Meyer

Inventor
H. L. E. Keuffel
By William R. Baird
His Attorney

UNITED STATES PATENT OFFICE.

WILLIE L. E. KEUFFEL, OF HOBOKEN, NEW JERSEY, ASSIGNOR TO THE KEUFFEL & ESSER COMPANY, OF HOBOKEN, NEW JERSEY, A CORPORATION OF NEW JERSEY.

MARKER FOR SURVEYORS' TAPES.

SPECIFICATION forming part of Letters Patent No. 773,016, dated October 25, 1904.

Application filed September 24, 1902. Serial No. 124,625. (No model.)

To all whom it may concern:

Be it known that I, WILLIE L. E. KEUFFEL, a citizen of the United States, and a resident of the city of Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Markers for Surveyors' Tapes, of which the following is a specification.

My invention relates to surveyors' tapes; and it consists of providing the same with a marker which affords a sure and efficient means of accurately indicating a selected point in the graduations.

In the drawings, Figure 1 is a plan view of a portion of a form of surveyor's tape now commonly employed in the trade. Fig. 2 is a similar view of my improved tape. Fig. 3 is an enlarged transverse sectional view across one of the grooves *e* and rivet *b* in the construction shown in Fig. 2. Fig. 4 is an enlarged detail plan view of the marker extended before it is attached to the tape. Fig. 5 is a perspective view illustrating one mode of using my improved marker, and Fig. 6 is an enlarged detail plan view of a modified form thereof.

In the drawings, *a* is the body of the tape, which may be made of steel or other suitable material.

b b are rivets secured to the body of the tape at certain intervals and which constitute one of the means by which it is graduated, and *c* is the marker by which prime graduations intermediate of the other rivets are indicated. In the old form of tape (illustrated in Fig. 1) this marker is commonly made of a flat plate of metal having square corners and which is folded over and riveted to the body of the tape, as shown. In using this old form of tape an error has frequently arisen, because it is difficult to place the central point of the marker on the upper edge of the tape alongside of the plumb-line or similar starting-point for measurement precisely coincident with the central plane passing through the graduating-rivet and transverse to the general axial line of the tape. If the tape itself were notched, so as to indicate more precisely the

point of graduation coincident with the center of the marker, it would weaken the tape. My improved form of marker, which provides a simple and efficient means of marking this point, obviates all of the disadvantages referred to. The square corners of the old marker are also apt to catch in grass or on the edges of stones and the line.

My improved markers are made in the usual manner out of one plate of metal, as shown in Fig. 4; but a central aperture is punched at *d*, as indicated, in addition to the apertures *d'* provided for the insertion of the rivets, and recesses *d''* are cut away. The aperture is formed in the line intersected by the fold, so that when the improved form of marker thus made is folded over the tape, as shown in Fig. 2, the aperture *d* forms in the folded edge of the marker a transverse groove *e*, which is plainly observed or can be easily felt by running said folded finger along the edge, and the tape itself is not weakened in any manner, and the marker is not liable to catch in contiguous objects. The recesses *d''* form a smooth rounded edge *e'* for the marker on each side.

In using my device the plumb-line can be held against the transverse groove *e* in the manner illustrated in Fig. 5 and which will be readily understood, thus affording a certain means of knowing the starting-point from which the measurement is taken, the notch preventing the plumb-cord from slipping.

In Fig. 6 I have illustrated a modified form of my device in which the medial line of the marker is represented by a long groove *e''*, and the fastening-rivets *b'* are secured on each side of the same. In making this form of marker, of course four holes instead of two would have to be punched in the metal plate to admit of the insertion of the four rivets *b'*. By means of this construction the plumb-cord is prevented from slipping also.

Having described my invention, what I claim as new is—

1. A marker for a surveyor's tape or the like, consisting of a plate folded to encircle

one edge of the tape and secured to said tape, said plate having its closed side provided with rounded corners and externally substantially parallel to the line of the tape and its said
5 closed side grooved in a plane coincident with one of the prime graduations of the tape.

2. The combination with a surveyor's tape or the like, of a marker consisting of a plate
10 folded over and secured to the tape and having its closed side formed to provide a groove therein, substantially as described and for the purpose set forth.

3. The herein-described marker for surveyors' tapes and the like, consisting of a plate
15 folded between its sides to inclose an edge of said tape, said marker having a groove in its folded edge, substantially as described and for the purposes specified.

4. The herein-described marker for surveyors' tapes and the like, comprising a plate
20 folded to inclose an edge of the tape, the said

plate being formed within its body with an aperture and its said fold being on a line which extends through said aperture, whereby a groove is formed in the closed edge of
25 the marker.

5. The herein-described marker for surveyors' tapes and the like, comprising a plate having an aperture in its body and recesses in its edges at opposite sides of said aperture, the
30 said plate being folded intermediate of its sides and on a line which extends through said aperture and recesses, substantially as described and for the purposes specified.

Witness my hand this 18th day of September, 1902, at the city of New York, in the county and State of New York.

WILLIE L. E. KEUFFEL.

Witnesses:

HERMAN H. STUTZ,
OTTO FREUND.