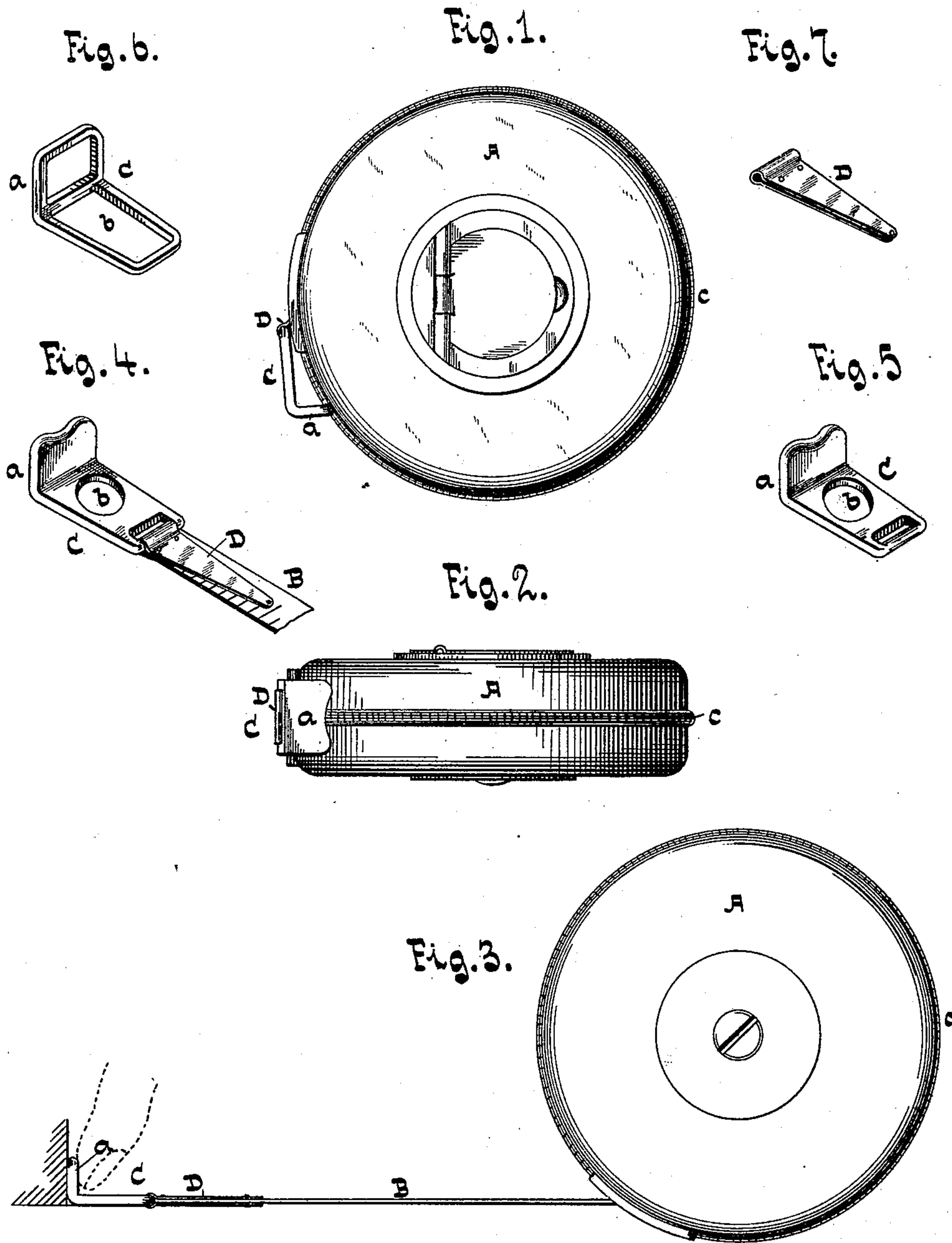


(No Model.)

E. G. SOLTSMANN.
TAPE MEASURE.

No. 400,961.

Patented Apr. 9, 1889.



WITNESSES:

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EDWARD G. SOLTMANN, OF NEW YORK, N. Y.

TAPE-MEASURE.

SPECIFICATION forming part of Letters Patent No. 400,961, dated April 9, 1889.

Application filed October 9, 1888. Serial No. 287,635. (No model.)

To all whom it may concern:

Be it known that I, EDWARD G. SOLTMANN, a citizen of the United States, and a resident of New York, in the county of New York and State of New York, have invented a new and useful Improvement in Tape-Lines, of which the following is a specification.

My invention relates to improvements in tape-lines, and especially to holders for the same, and means for securing said holders, all of which is fully pointed out in the following specification and claims, and illustrated in the accompanying drawings, in which—

Figure 1 represents a face view of a tape-line case, showing the holder attached to the tape-line and the tape-line wound up. Fig. 2 is a side elevation of Fig. 1. Fig. 3 is a face view illustrating the use of the tape-line. Fig. 4 is a perspective view of the holder attached to the tape-line. Fig. 5 is a similar view of the holder detached. Fig. 6 is a perspective view of a modification of the holder. Fig. 7 is a perspective view of the strap for attaching the holder to the tape-line.

Similar letters indicate corresponding parts.

In the drawings, Figs. 1, 2, and 3 especially, the letter A designates a tape-line housing, which contains the reel to which the end of the tape-line B is attached, all as usual. To the outer end of the tape-line B, I attach a holder, C, which is provided with a stop, *a*, that projects from the body thereof at approximately right angles. This stop is best formed directly at the outer end of the body of the holder, and its external surface is made perfectly flat and extending at approximately right angles to the body of the holder. In practice I make the holder fully equal in width to the tape, whereby a good rest is obtained for the finger in retaining the same against the object from which the measurement is to be taken, Fig. 3.

Heretofore holders for tape-lines consisted merely of rings or hooks, which did not form a convenient hold, and could not be held rigidly by hand against the object when the tape-line was drawn taut.

An opening, *b*, Figs. 4 and 5, may be made in the body of the holder C, into which the end of the finger can extend to permit the height of the stop *a* to be reduced to a mini-

mum, and also to facilitate the carrying of the holder. In order that the holder may lie close to the periphery of the tape-line housing A when the tape-line is wound up, the upper edge of the stop *a* may be recessed to fit over the bead *c*, forming the joint of the two sections of the housing, Fig. 2. Of course, when such a bead does not exist, the recess is omitted.

In Fig. 6 I have shown the holder C provided with an open stop, and it is evident that other modifications in the form or construction of the holder could be adopted to the same end. It is evident that the stop *a* is also adapted to engage with the sole of the boot when the foot is used to hold the end of the tape-line in position on the ground.

The holder C can be united to the end of the tape-line by any suitable means. In the example illustrated in the drawings, Figs. 3, 4, and 7, I have made use of a metallic tape-line, and in this case the holder is attached by a metallic strap, D, which is looped about a bar on the holder, and is riveted to the tape-line. The arms of the strap, which embrace and are united to the tape-line, gradually decrease in width or taper to approximately a point, so that the resistance to bending caused by the triple thickness of metal is gradually decreased toward the ends of the strap, and consequently the tape-line is not liable to break off at the inner termination of the strap, as is frequently the case when the ordinary strap is used.

What I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the tape, of a holder substantially equal in width to the tape, and having at its outer end a rigid stop projecting at right angles therefrom, said stop being approximately of the same width as the body of the holder, substantially as described.

2. The combination, with the tape, of a holder having at its outer end a projecting stop provided with a recessed upper edge, said holder being so located that the recess receives the bead of the casing when the tape is wound up, substantially as described.

3. In a tape-measure, the combination of a metallic tape, a holder, and the flexible me-

tallic strap G, uniting the holder and the tape
and embracing the latter, the opposite arms
of said strap gradually tapering to a point,
whereby the resistance to bending of the triple
5 thickness of metal is gradually decreased, sub-
stantially as set forth.

In testimony that I claim the foregoing as

my invention I have signed my name, in pres-
ence of two witnesses, this 3d day of October,
1888.

EDWARD G. SOLTSMANN.

Witnesses:

A. FABER DU FAUR, Jr.,

H. W. HELFER.