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G. STROM

REEL FOR TAPE MEASURES

Filed May 10, 1922

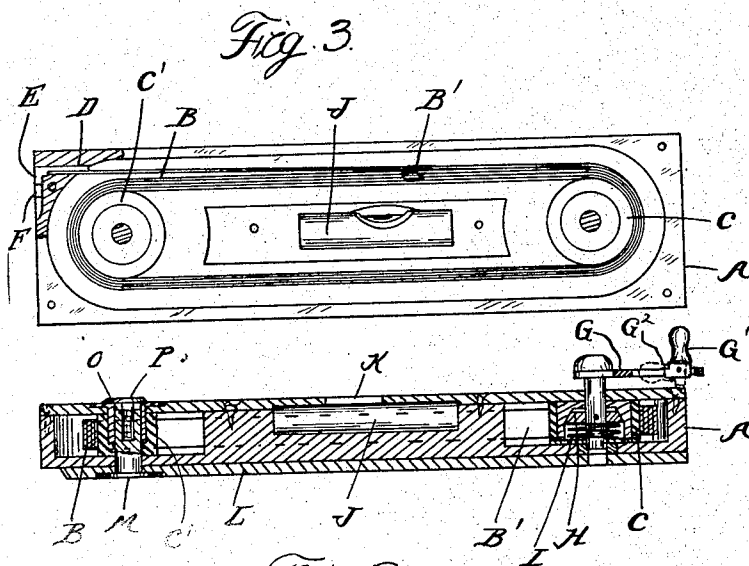
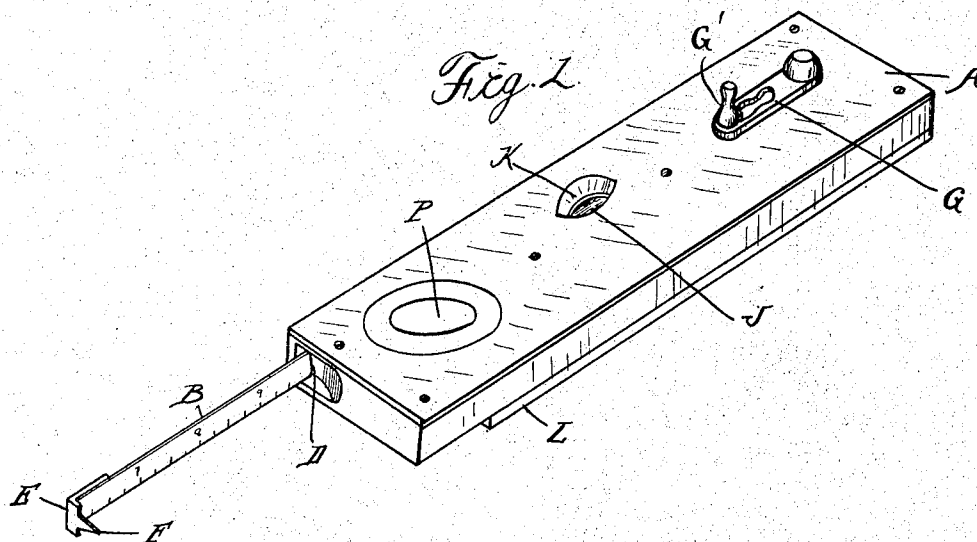


Fig. 2.

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UNITED STATES PATENT OFFICE.

GUSTAV STROM, OF PONTIAC, MICHIGAN, ASSIGNOR OF THIRTY ONE-HUNDREDTHS TO
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REEL FOR TAPE MEASURES.

Application filed May 10, 1922. Serial No. 559,742.

To all whom it may concern:

Be it known that I, GUSTAV STROM, a citizen of the United States of America, residing at Pontiac, in the county of Oakland and State of Michigan, have invented certain new and useful Improvements in Reels for Tape Measures, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to tools designed for use of carpenters and other workmen, and it is the object of the invention to provide a small instrument that may be used either as a measuring rule, a level or a protractor. To this end the invention consists in the construction as hereinafter set forth.

In the drawings:

Figure 1 is a perspective view of the instrument;

20 Figure 2 is a longitudinal section; and
Figure 3 is a sectional plan view.

In the present state of the art the rules most frequently used by carpenters and similar workmen are either the common folding pocket rule or sliding or other jointed rules which may be extended in various ways. For long measurements a tape is frequently employed, but this is inconvenient particularly if used for inside measurements, such, for instance, as in a window or door frame. My improved construction combines the advantages of the tape and the folding or sliding rule and also has peculiar advantages of its own.

35 In detail, A is a rectangular case which is of a predetermined length. B is a tape which is wound upon a roll C within the case and extends outward through a slot in one end thereof, as indicated at D. The outer end of the tape is provided with an angle strip E having a point F by means of which it can be engaged either with the inside or outside of the member from which measurement is to be taken. As specifically shown, the tape B extends around two rolls C and C', being attached to itself to form a band or belt B' and the additional windings being wrapped about said belt parallel thereto. This enables the storage of a greater length of the tape and without bending the same to the degree required where wound on a single roll.

The winding crank G is arranged on one side of the casing and it is preferably attached to the winding roll or drum C by a clutch H, which may be released. Thus, as shown, this clutch H is formed by a conical member within the drum C yieldably pressed into a conical seat in said drum by a spring I so that by pressing on the end of the shaft, the clutch will be relieved and the drum will be free to rotate independent of the crank.

In the space within the band B', there is mounted within the casing a level tube J, which is visible through an opening K in one side of the case. There is also arranged upon the opposite side of the case a member L, which is pivotally attached at M with degree markings N around the pivot, which serve the part of a protractor. This permits of setting the member L at any desired angle and to hold it in this position, there is a clamping screw O, preferably provided with an enlarged head P, which may be turned by the thumb of the user when clamping is effected.

With the construction described, to take a longitudinal measurement, the casing has its outer end placed at one terminal and the tape is then drawn out until the angle piece E is registered with the other terminal. This tape is so calibrated as to take in account the length of the case, and, therefore, the user, in reading the measurement on the tape at the end of the case through which said tape passes, will know the entire measurement from the opposite end of the case to the end of the tape.

To lock the tape in any position of adjustment, the handle G' for the crank G is pivotally attached thereto and is provided with a finger G², which, when the handle is turned down as shown in dotted lines in Fig. 3, will engage the casing and hold the crank from movement.

The device will have many uses which, it is believed, are obvious.

What I claim as my invention is:

1. The combination with an elongated case having an opening at one end, of a pair of spaced rolls mounted in said case, a tape having a looped portion wound around said rolls said tape being adapted to be

wound about said looped portion and extending through the opening in said case, and means adapted to be frictionally attached to one of said rolls for actuating
5 said tape.

2. The combination with an elongated case having an opening, of a pair of spaced rolls mounted in said case, a tape having a looped portion wound around said rolls,

said tape being adapted to be wound about 10 said looped portion and extending through the opening in said case, a crank handle mounted in said case coaxially with one of said rolls, and a spring pressed clutch normally frictionally connecting said crank 15 handle to said rolls for actuating the same.

In testimony whereof I affix my signature.

GUSTAV STROM.