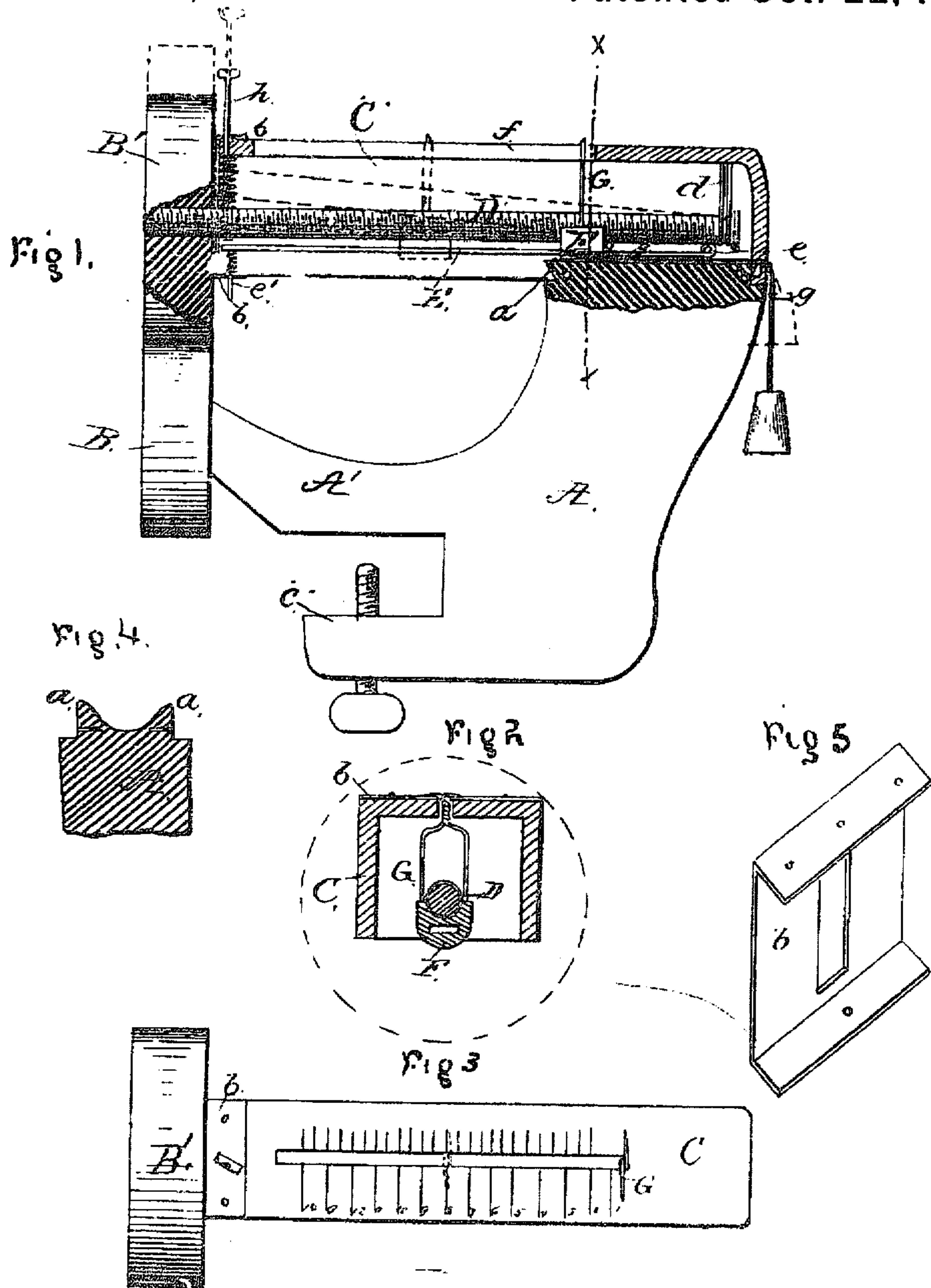


T. T. FARNSWORTH.
Cloth-Measuring Apparatus.

No. 209,164.

Patented Oct. 22, 1878.



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UNITED STATES PATENT OFFICE.

TALCOTT T. FARNSWORTH, OF MANASSAS, VIRGINIA.

IMPROVEMENT IN CLOTH-MEASURING APPARATUS.

Specification forming part of Letters Patent No. **209,164**, dated October 22, 1878; application filed January 29, 1878.

To all whom it may concern:

Be it known that I, TALCOTT T. FARNSWORTH, of Manassas, in the county of Prince William and State of Virginia, have invented certain new and useful Improvements in Measuring Devices; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

The object of this invention is to facilitate the means of measuring any cloth, cotton, paper, or fabric of any kind whatsoever, and also that the same may be measured more accurately and in less time than by the means now in use.

In the accompanying drawings, in which similar letters of reference indicate corresponding parts, Figure 1 is a side view, with parts broken away; Fig. 2, section on line *x x*. Fig. 3 is a top view of the arm C; Fig. 4, section of the projection *a*; Fig. 5, perspective view of the plate or covering *b*, showing the slot.

A is the base of my device, having at or about its center a projecting arm, A'. Upon this arm is a roller, B'. At the lower fore end of the base A is a vise or clamp, *c*, for securing the same to a counter or table, as shown. To the upper end of the base A, and forming a part thereof, is the projection *a*, for connecting the base to the upper part of the device, as will be more fully expressed hereinafter. This projection is grooved out to allow the sliding block in the upper part of this device to pass freely between, as shown.

To connect the lower part or base to the upper part one or more bolts are used, said bolts being passed through from the outside.

C is the indicating-arm. At the extremity of this arm and rigidly secured to the screw D is the roller B'. The said arm C has upon its fore end a plate or covering, *b*, which extends over both the top and bottom of the arm, and is fastened by means of bolts or screws. This arm C has a deep slot cut along its entire under surface and almost entirely through the said arm, and also has a smaller slot in the top running along the greater part thereof, so as

to allow the indicator to pass freely between. The arm C has a number of marks or figures to represent the number of yards measured, as will be more fully explained hereinafter. The screw D, after being secured to the roller B', extends along the full length of said arm C, and is fastened to the main part of the arm by means of the support *d*; or may be journaled in the arm itself, the said support being so arranged that screw D' can freely revolve in the same. At the fore end of this screw, and extending upward, is a rod, *h*. Said rod has a spring upon it, as shown. Directly beneath this screw D, and extending along the greater part thereof, and secured at the rear end to the sides of the arm C by means of a bolt or pivot, *e*, is the bar E. Upon the fore end of this bar is a small projection, *e'*, which projects downward and passes through the plate or covering *b* on the arm C. Upon this projection, and between the plate or covering *b* and the main part of the bar E, is a small spring. Upon the bar E is the sliding block F, which has a slot cut through its longitudinal center of suitable dimensions to allow the bar E to pass freely through the same, and upon the upper side of this sliding block is a groove cut to allow the screw D to rest upon. The said block F has on its face a series of threads, so that the threads on the screw D, working into these threads by means of the action of the roller B', causes the sliding block to move forward. Upon this sliding block F, and extending upward through the slot *f* in the top of the indicating-arm C, is the indicator G. This indicator may be made of two wire uprights twisted together at their upper end and bent over the top of the indicating-arm, thus forming two points, which point to one or more scales on the indicating-arm C, thus indicating the number of yards of fabric measured. To the lower rear end of this block F is secured a spring or elastic, *g*. This spring passing backward along the bar E is firmly secured to the main part of the arm. Instead of a spring or elastic there may be fastened to this block a cord, which passes backward over a pulley, and thence attached to a weight.

The operation of the device is as follows: The device is secured to a counter or table by means of the clamp or vise *c*. The operator

then places the cloth or fabric of any kind between the rollers B B', the peripheries of which may be roughened to prevent the cloth from slipping, and draws the same through said roller. The roller B' revolving causes its axle or the screw D to revolve, the threads of which work into the threads on the face of the sliding block F, causing this block to move forward, and the indicator, by means of the points and marks on the indicating-arm, shows the number of yards measured. When this is done the operator, by means of the rod h, lifts the screw and roller out of the threads on the face of the shifting-block F, and the spring or weight causes the block and also the indicator to recede to the beginning of the scale. The small bolt l acts as a check for the same.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a measuring device, the base A, upon which is the projecting arm A', roller B, and clamp or vise c, substantially as described, and for the purpose set forth.

2. In a measuring device, the sliding block F, to which a spring, cord, or elastic for op-

erating the same is attached, substantially as described, and for the purpose set forth.

3. In a measuring device, the sliding block F, which has a groove on its upper side and has a slot cut through its center, in combination with the cord, elastic, or weight for operating the same, substantially as specified.

4. In a measuring device, the sliding block F, to which a cord, spring, or elastic is attached for operating the same, in combination with the rollers B B' and screw D, substantially as described, and for the purpose set forth.

5. The combination of the following elements: base A, rollers B B', screw D, journals for holding the same, sliding block F, bar E, pivot e, and spring or elastic g, all the parts mentioned being arranged substantially as described, and for the purpose set forth.

In testimony that I claim the foregoing as my own I affix my signature in presence of two witnesses.

TALCOTT T. FARNSWORTH.

Witnesses:

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W. T. JOHNSON.