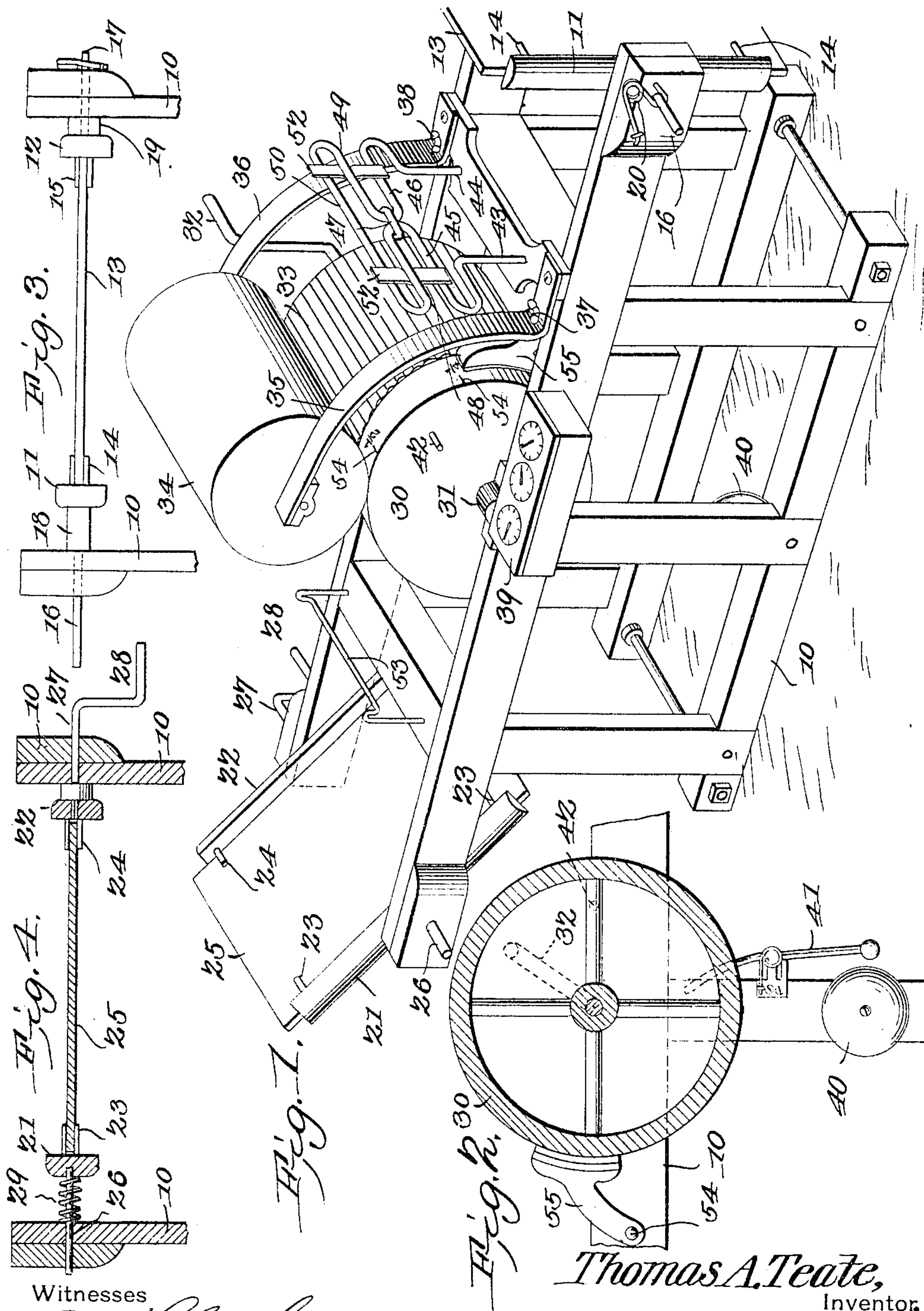


No. 819,096.

PATENTED MAY 1, 1906.

T. A. TEATE.
FABRIC MEASURING DEVICE.
APPLICATION FILED OCT. 21, 1905.



Witnesses
E. J. Stewart
C. H. Woodward

Thomas A. Teate,
Inventor.
by *C. A. Snow & Co.*
Attorneys

UNITED STATES PATENT OFFICE.

THOMAS A. TEATE, OF THOMASVILLE, GEORGIA, ASSIGNOR OF ONE-HALF
TO HENRY C. RAMSEY, OF THOMASVILLE, GEORGIA.

FABRIC-MEASURING DEVICE.

No. 819,096.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed October 21, 1905. Serial No. 283,825.

To all whom it may concern:

Be it known that I, THOMAS A. TEATE, a citizen of the United States, residing at Thomasville, in the county of Thomas and State of Georgia, have invented a new and useful Fabric-Measuring Device, of which the following is a specification.

This invention relates to devices for measuring fabrics of various kinds, and has for its object to improve and simplify the construction and increase the efficiency and utility of devices of this character.

With these and other objects in view, which will appear as the nature of the invention is better understood, the invention consists in certain novel features of construction, as hereinafter fully described and claimed.

In the accompanying drawings, forming a part of this specification, and in which corresponding parts are denoted by like designating characters, is illustrated the preferred form of the embodiment of the invention capable of carrying the same into practical operation, it being understood that various changes in the form, proportions, and minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention within the scope of the appended claims.

In the drawings, Figure 1 is a perspective view of the improved device. Fig. 2 is a sectional detail illustrating the construction and operation of the brake and the signaling attachments. Fig. 3 is an enlarged detail of the holding mechanism. Fig. 4 is an enlarged sectional detail of the fabric-winding mechanism.

The improved device comprises in general a holding means for the fabric to be measured, a winding means spaced from the holding means, a measuring means between the holding means and winding means, an adjustable tension device operating upon the measuring means, a recording means associated with the measuring means, a signaling device operative by the measuring means, and guiding means for the fabric between the holding means and measuring means.

The parts constituting the improved apparatus are mounted upon a suitable frame 10, with the holding means at one end and the winding means at the other end and with the other parts intermediate the frame. The holding means consists of two side mem-

bers 11 12 spaced apart and bearing against opposite sides of the central board or card 13, upon which the fabric to be measured is generally reeled, and provided with spaced pins 14 15 and between which the member 13 is held, as shown in Fig. 3.

The side members 11 12 are provided, respectively, with stub-shafts 16 17, journaled in the side members of the frame 10, so that the members 11 12, with the member 13 held between them, will rotate freely upon the frame 10. The shafts 16 17 are provided with spacer members 18 19 between the members 11 12 and the sides of the frame 10 to hold the members 11 12 in position against the member 13, and by providing a plurality of spacers of various lengths the device can be readily adapted to various sizes of the members 13, as will be obvious. Attached to one of the side members of the frame 10 is a tension-spring 20, bearing upon the shaft 16 to retard the movement and serving as a brake upon the action of the holding device.

The winding means consists of spaced side members 21 22, having spaced holding-pins 23 24, between which an empty card or board 25 is held, stub-shafts 26 27, extending from the members 21 22 and journaled in the frame 10, one of said shafts having an operating crank-handle 28 and the other shaft having a tension-spring 27 bearing between the members 21 and frame 10 and holding the member 25 yieldably in position. The winding means is thus adjustable to suit cards of different sizes.

The measuring means consists of a roller 30 of any predetermined size—as, for instance, one yard in circumference—mounted for rotation in suitable bearings, as at 31, upon the frame 10 and preferably provided with an operating-crank 32 to facilitate the setting of the roller when starting the device. The roller is also preferably coated with suitable material, such as rubber cloth with finely-divided corrugations, to prevent the material being measured from slipping over the surface of the roller while being measured, the roughened covering being indicated at 33. Bearing upon the roller 30 is a tension-roller 34, supported yieldably in position by spring-hangers 35 36, the latter provided with set-screws 37 38, whereby the force of the tension may be increased or decreased as required. An indicating mechanism of any

approved construction is connected to one of the journals of the roller 30 for denoting the amount of fabric measured, the indicating device being indicated at 39. Attached to the frame 10 at any suitable point is a gong or bell 40, and between the gong and the roller 30 is a spring-controlled hammer 41, one end of the hammer-stock extending into the path of a pin 42, extending from the roller. By this means a signal will be sounded at the completion of each revolution of the roller, and thus notify the operator of that fact.

Between the holding member and the measuring member a fabric-guiding means is arranged, consisting of spaced wire bars, between which the fabric passes when moving from the holding means to the measuring means. The guide member is formed from a single piece of wire, with spaced vertical standards 43 44 inserted into one of the transverse members of the frame 10 and extended outwardly in opposite directions and thence bent inwardly, as at 45 46, and united by a link 47, and thence extended outwardly again, as at 48 49, and parallel to the portions 45 46 and the remainder of the wire bent into a flat elongated loop 50 parallel to the portions 48 49. By this means a plurality of spaced parallel rods are disposed at opposite sides of the coupling-link 47, and woven through these bars are stop-bars 51 52, which serve as guides to the fabric passing to the measuring-roller.

The material as it is reeled from the holding means is constantly moved upwardly and downwardly, as will be obvious; but the location of the guide member parallel to the axle of the measuring-roller 30 holds the material steadily in position and guides it uniformly to the measuring-roller regardless of the position of the holding means. At the opposite side of the roller 30, or between the roller and the winding means, is a guide member 53, of wire, as shown in Fig. 1. Pivoted at 54 upon the frame 10 is a brake-arm 55 for bearing against the roller 30 and preventing retrograde movement of the same.

With a device constructed thus the operation is as follows: The bolt of material to be measured is disposed in the holding means by inserting the card or board upon which it is reeled between the members 11 12 and the pins 13 14, as before described. The free end of the fabric is then passed between the bars 48, 49, and 50 of the guide member and the guards 51 52 set at the required distance apart to prevent lateral movement to the

fabric. The end of the fabric is then passed between the rollers 30 34, care having been taken to either set the recording mechanism at zero or to note its condition, so that the proper readings may be made after the required amount has been measured. The end of the fabric is then passed between the roller 30 34 and carried forward to the empty card 25, to which it is attached. Then the crank 28 is rotated until the fabric has been transferred from the card 13 to the card 25 and the amount registered in the device 39. Spaced lines are placed upon the roller 30, as at 54, to denote the fractions of yards or other measurements as required.

The device is simple in construction, can be inexpensively manufactured and employed for measuring any fabric or similar material which is reeled upon cards or boards, as before described.

Having thus described the invention, what is claimed is—

1. In a fabric-measuring device, a holding means for the fabric to be measured, a winding means for receiving the fabric after it is measured, a measuring-wheel between the holding means and winding means, and a guiding means between the holding means and measuring-wheel, and consisting of a plurality of spaced bars parallel to the axle of the measuring-wheel and between which bars the material passes to the measuring-wheel, and spaced stop-bars woven between the spaced bars and adjustable longitudinally of the same.

2. In a fabric-measuring device, a holding means for the fabric to be measured, a winding means for receiving the fabric after it is measured, a measuring-wheel between the holding means and winding means, and a guiding means between the holding means and measuring-wheel formed from a single piece of wire and comprising a relatively long flat loop having parallel sides and two shorter flat loops coupled end to end intermediate the longer loop and with supporting-standards depending from the shorter loops and stop-bars woven among the loops and adjustable longitudinally of the same.

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

THOMAS A. TEATE.

Witnesses:

JOHN M. DEKLE,
F. H. BUTLER.