

(No Model.)

3 Sheets—Sheet 1.

C. H. YOUNG.
CLOTH MEASURING MACHINE.

No. 473,103.

Patented Apr. 19, 1892.

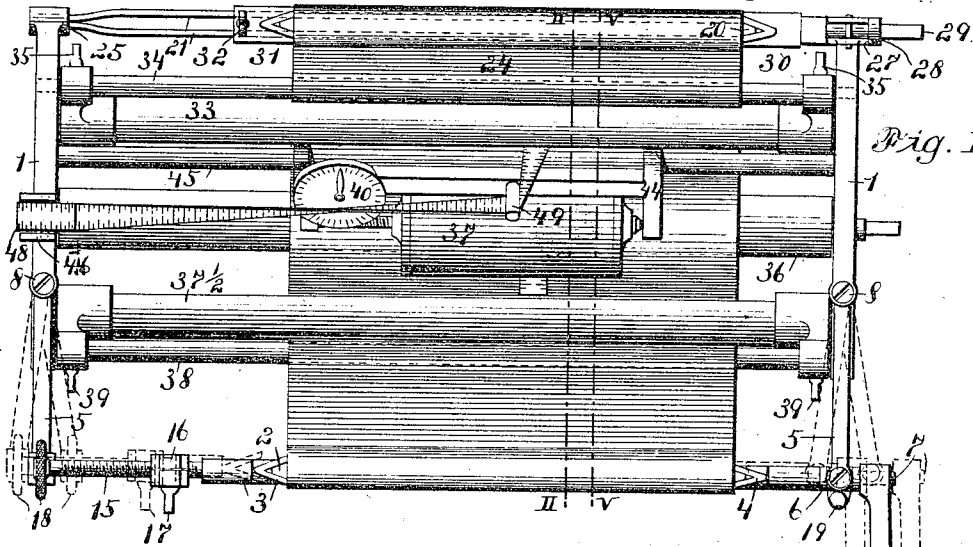


Fig. I.

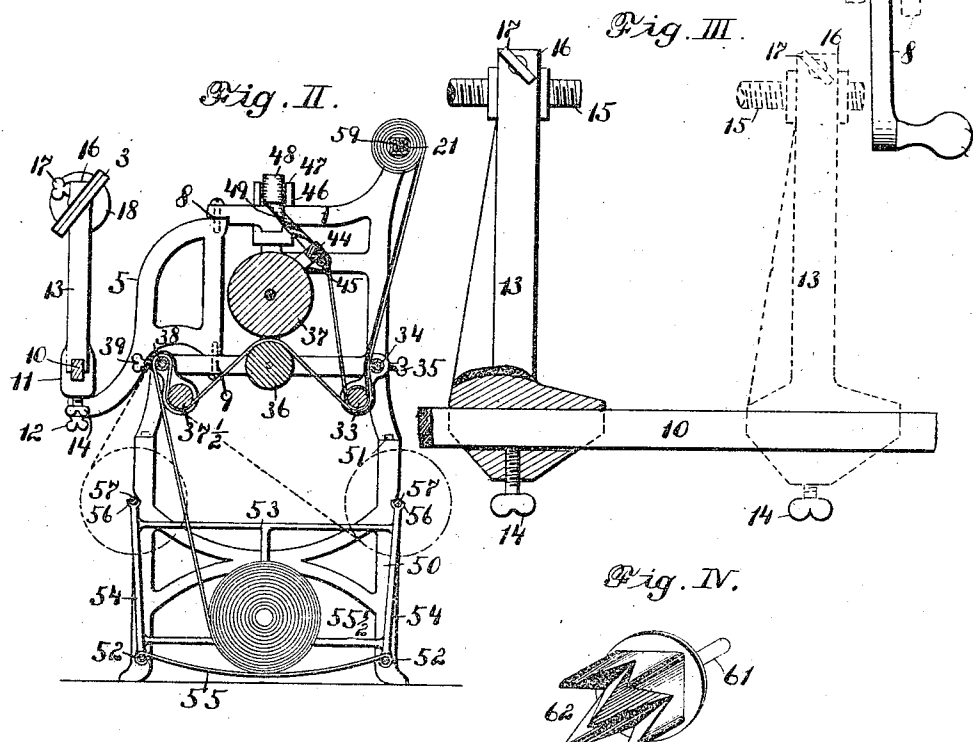


Fig. II.

Fig. III.

Fig. IV.

Witnesses:
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S. H. Knight

Inventor:
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By *Amight* Brov.
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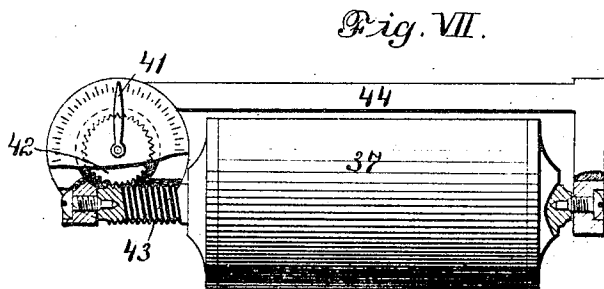
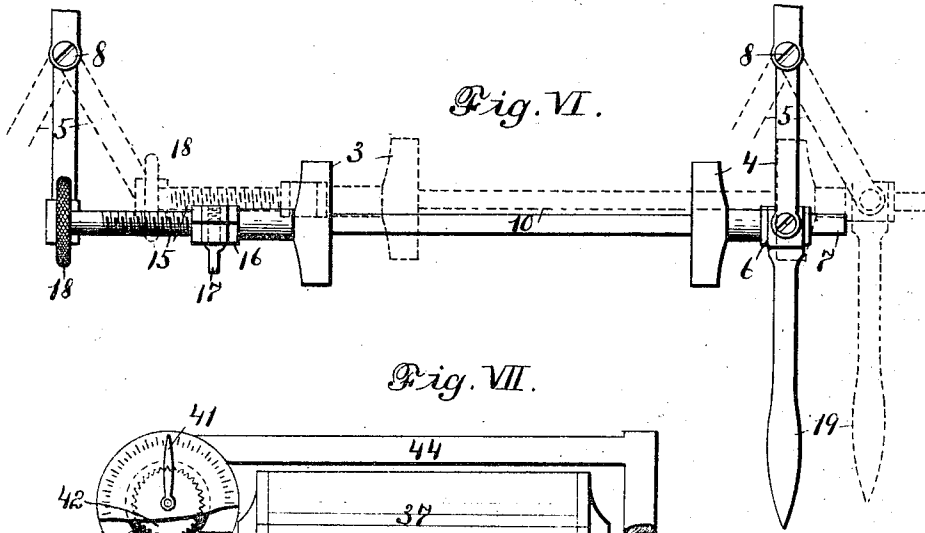
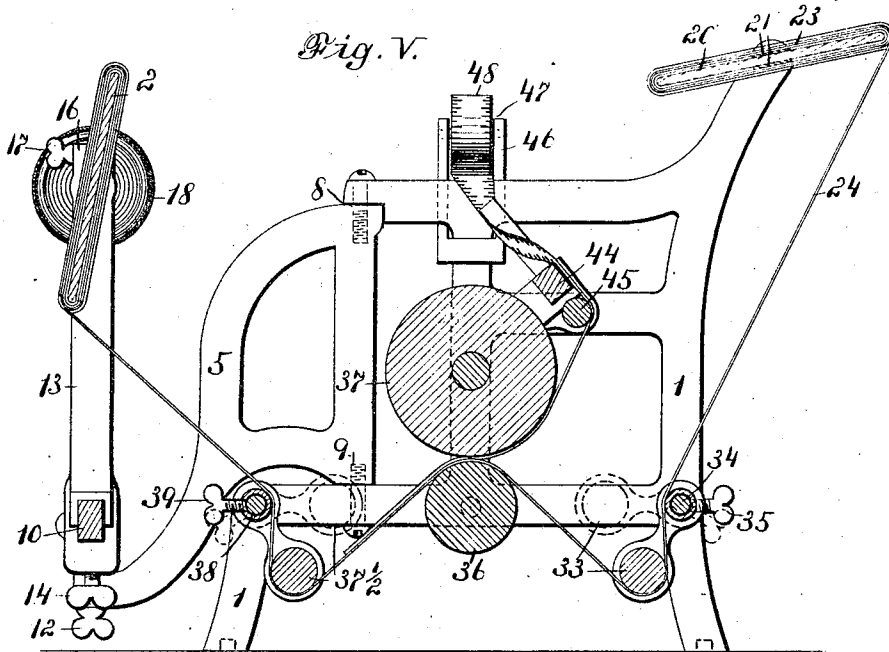
(No Model.)

3 Sheets—Sheet 2.

C. H. YOUNG.
CLOTH MEASURING MACHINE.

No. 473,103.

Patented Apr. 19, 1892.



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(No Model.)

3 Sheets—Sheet 3.

C. H. YOUNG.
CLOTH MEASURING MACHINE.

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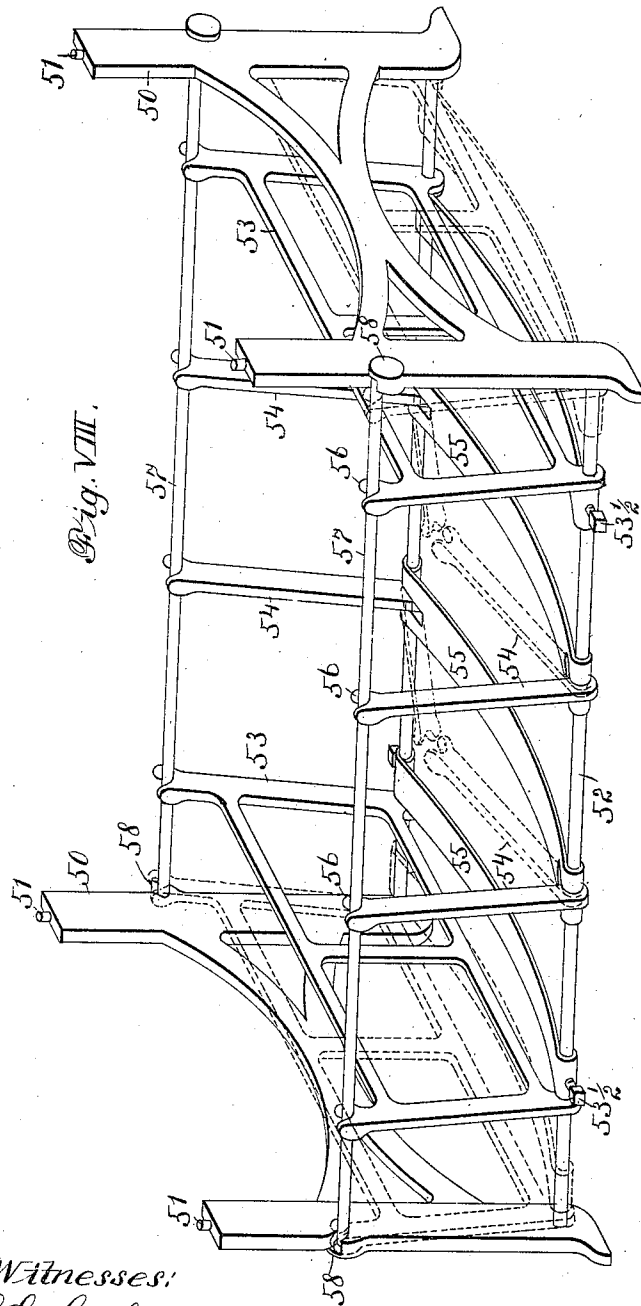


Fig. VIII.

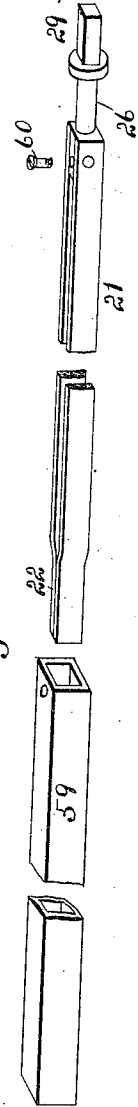


Fig. IX.

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UNITED STATES PATENT OFFICE.

CHARLES HENRY YOUNG, OF KANSAS CITY, MISSOURI, ASSIGNOR TO DAVID A. WEYER, OF SAME PLACE, AND WILLIAM CLOW, OF INDEPENDENCE, MISSOURI.

CLOTH-MEASURING MACHINE.

SPECIFICATION forming part of Letters Patent No. 473,103, dated April 19, 1892.

Application filed April 28, 1891. Serial No. 390,736. (No model.)

To all whom it may concern:

Be it known that I, CHARLES HENRY YOUNG, of Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Cloth-Measuring-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form a part of this specification.

My invention relates to an improved device for measuring cloth or other fabrics, the same being intended more especially for inventorying; and it consists in features of novelty hereinafter described, and pointed out in the claims.

Figure I is a plan view of my improved device. Fig. II is a vertical section taken on line II II, Fig. I, showing the manner of measuring carpet. Fig. III is an enlarged detail elevation of the adjustable bracket for supporting a clamp. Fig. IV is a perspective view of a device for supporting the cloth or other fabric by being pressed into the end of the roll on which the same is wound. Fig. V is a sectional view taken on line V V, Fig. I, showing the manner of measuring cloth or other fabric. Fig. VI is a plan view of my adjustable clamp and support for the bolt of fabric. Fig. VII is a plan view of my indicator and friction-roller for operating the same, a portion of the same being broken away to show the operation of said indicator. Fig. VIII is an enlarged detail perspective showing my improved cradle for supporting a large roll of fabric, such as carpets, &c. Fig. IX is an enlarged detail perspective showing the bifurcated shaft and sleeve for placing on the same for the support of goods as they are being wound or unwound.

Referring to the drawings, 1 represents the frame for supporting the various parts of my improved device.

2 represents the board or roller on which the fabric may be wound as it is passed through the machine in order to be measured, said board being supported by clamps 3 4, the clamp 4 being journaled in a movable frame 5, as shown at 6, with an extension 7, on which a crank 8 may be placed in order to rotate said clamp in winding the goods on the board 2.

The frame 5 is pivoted to the main frame 1 at its upper and lower ends, as shown at 8 9, so that the same is movable laterally, as shown in Fig. VI, said frame 5 being made in two parts connected by a cross-bar 10, said bar 10 being connected with posts 11, which are movably connected with the lower ends of the frame 5, as shown at 12, said posts being let into said frame and loosely secured thereto, so that they will work in their bearings in the frame 5 as the frames are vibrated or moved laterally.

On the bar 10 is a movable bracket 13, provided with a set-screw 14, by which the same may be set at any desired point on said bar, the bracket 13 supporting a screw 15 by means of a clamp 16 on its upper end, said clamp having a set-screw 17, by which it may be either tightened or loosened in order that the screw 15 may work readily therein. The screw 15 is provided at its outer end with a wheel 18 for operating the same. On the inner end of the screw the clamp 3 is secured, whereby by rotating said screw 15 the clamp 3 may be made to approach the clamp 4 or to recede therefrom in securing the board therein on which to wind the fabric, or said clamp may be moved laterally on the bar 10 by adjusting the bracket 13 thereon.

The object of having the frame 5 and the clamps connected therewith movable laterally is in order that when the goods are being wound upon the board if the same should run toward either end, as goods frequently do when not being wound straight or from other causes, the frame and clamps may be moved to correspond with the goods, and thus enable the operator to wind them straight, said device being movable laterally by the handle 19. Thus as the operator is turning the crank 8 and winding up the goods he can at the same time move the frame 5 and clamps supported thereby in either direction, as he may desire.

The bolt or roll of goods wound on the usual board or roller 20 is operated by a bifurcated shaft 21, having its ends 22 disconnected, whereby the same may be inserted on each side of the board, as shown at 23, between the board and the fabric 24 wound thereon, the

ends 22 of said shaft being placed in the frame 1, as shown at 25, the opposite end of the shaft having a reduced portion 26, which rests in a socket 27 in the frame 1, and having a collar 28, which prevents lateral movement of the same, and a square extension 29, on which, if desired, the crank 8 may be placed in order to wind the fabric in the opposite direction. On the shaft 21 I place clamps 30 31, similar in construction to the clamps 3 4 on the opposite side of the machine, between which the board 20 is secured, said clamp 31 being movable on the shaft 21 in order to accommodate itself to the length of the bale or board on which the fabric is wound, said clamp being adjustably secured to the bar 21 by means of a set-screw 32. The fabric after being connected with the shaft 21 may be passed down under the tension-roller 33, which is pivoted to a rod 34 and provided with a set-screw 35, whereby said tension-roller may, if desired, be set at any point on the rod to which it is pivoted, (see Fig. V,) the fabric then passing over a roller 36, journaled to the frame, on which rests a friction-roller 37, said friction-roller, however, pressing against the fabric as it passes through the machine, the fabric then passing beneath an additional tension-roller 37½, pivoted to a rod 38 and having a set-screw 39, by which it may be set at any desired point on its support, the fabric as it passes through the machine bearing against the rods 34 38, thus forming an additional friction in order to keep the goods taut as they pass through the device, the fabric after it passes through the various rollers being wound on the board 2 by the crank 8.

As the fabric is being passed through the machine the number of yards so passing is recorded upon the indicator 40, the hand 41 on said indicator being secured to a worm-gear 42, (see Fig. VIII,) said worm-gear meshing with a screw-threaded shaft 43, to which the friction-roller 37 is connected, said roller being journaled to a frame 44, which is pivoted to a rod 45, said roller by gravity pressing the fabric against the roller 36 as it passes through the machine, the fabric thus rotating the roller 37 and operating the indicator 40 by means described, thus indicating the number of yards that have passed under said roller.

46 represents a bracket supporting a spool 47, on which is wound a tape 48, the bracket 46 being suitably secured to the frame 1, said tape passing around a pin 49 on the frame 44 and then passing down beneath the roller 37, where the same joins the fabric and passes on through with the fabric and is wound upon the board with the fabric, said tape serving to indicate the number of yards passed through the machine, thus forming a check on the indicator and also indicating the number of yards in the bale of fabric after the same has been taken from the machine, the tape being torn off at the end of the fabric and remaining with the same.

For supporting carpet or other heavy fabric

wound in rolls I provide a cradle composed of a frame 50, having pins 51 at its upper end, to which the top portion of my improved device may be secured (see Fig. II) when it is desired to measure heavy rolls of fabric. The frame 50 is connected at its bottom by transverse rods 52. (See Fig. VIII.) Connected with said rods 52 are movable frames 53, which may be moved laterally to accommodate themselves to the length of the roll of carpet or other fabric, in order to prevent endwise movement of the same. Said frames may be secured at any desired point on said rods by means of set-screws 53½ and moved back and forth, as shown at Fig. VIII.

Pivoted to rods 52 are movable arms 54, which may at times be folded down, as shown in dotted lines, Fig. VIII. Connecting the rods 52 is a series of concave strips 55 for supporting the roll of fabric 55½. The movable frames 53 and arms 54 are provided with sockets 56, in which rods 57 may be placed, said rods 57 thus forming a guide for the frames 53 and holding the upper ends of the arms 54, said arms and frames being for the purpose of confining the roll of goods. The rods 57 rest at either end in sockets 58 in the frame 50. If desired, the roll of goods may be placed on either of said rods 57, instead of resting in the cradle, as shown by dotted lines in Fig. II, representing the manner in which the roll may be placed on said rods. The carpet or other fabric resting in the cradle is passed up over the shaft 38, under the tension-roller 37½, over the roller 36, under the tension-roller 33, from whence it is wound on the shaft 21. I do not, however, confine myself to passing the fabric over or under any certain number of rolls or in any particular manner through and between said rolls, only using a sufficient number of bearings to create a sufficient amount of friction to keep the cloth taut at all times.

59 represents a sleeve, which, if desired, may be placed on the shaft 21 and secured thereto by a screw 60, on which the goods may be wound instead of winding it directly on the shaft. In the case where goods are wound upon rollers instead of boards I provide a shaft 61, bearing points 62, which may be inserted in the machine and used in place of the clamps 3, 4, 30, and 31 in order to support a roll, the points being pressed into the ends of said roll.

By the means of my device I am enabled in invoicing or at other times to place a bolt of material on the shaft 21 and wind it onto a board 2, supported by the clamps 3 4, passing the fabric through the machine and measuring the same.

If it is not desired to have the fabric remain on the board 2, I can very readily place the crank 8 on the extensions 9 of the shaft 21 and rewind the fabric, passing it back onto the original board. It will thus be seen that I can readily pass the cloth back and forth through the machine without removing

it from the machine or changing any of the parts except the crank, which, in case I desire to provide an additional crank, would need no change whatever, and by my improved method of supporting the board on which the fabric is wound I can readily move the same laterally in order to wind the goods straight, which cannot at all times be done were the board 2 to be supported in a fixed support. I am by this device also enabled to wind and unwind double-width goods, keeping them in perfect form.

I claim as my invention—

1. In a cloth-measuring machine, the combination of a suitable means for supporting a bolt of cloth or other fabric, a friction-roller with which said fabric comes in contact, an indicator in connection with said friction-roller, clamps 3 4 for supporting a board or roll on which the fabric may be wound, said clamp 3 being secured to a screw 15, said screw 15 being supported upon an adjustable bracket 13, provided with a clamp 16 at its upper end, and a handle 19 for moving the clamps and supporting device in a lateral direction, substantially as set forth, and for the purpose described.

2. In a cloth-measuring machine, means for supporting a bale of cloth or other fabric, means in connection with the machine for registering the amount of cloth passed through the same, frames 5, pivoted to the main frame of the machine, posts 11, secured to the frames 5, cross-bar 10, connecting said posts, bracket

13, movably secured on said bar, said bracket supporting a clamp 3, a clamp 4, secured to one of the posts 11, and a projection on the shaft to which the clamp 4 is secured for placing a crank thereon in order to rotate the same, substantially as and for the purpose set forth.

3. In a cloth-measuring machine, the combination of a suitable device for supporting a bolt of cloth or other fabric, means for unwinding the same, tension-rollers 33 37 $\frac{1}{2}$, roller 36, friction-roller 37, having an indicator in connection therewith, frame 44, to which said friction-roller is journaled, said frame being pivoted to a rod 45, bracket 46, measuring-tape 48, supported thereby, and a pin or roller 49 on the frame 44, forming a bearing for said tape, substantially as described, and for the purpose set forth.

4. In a cloth-measuring machine, the combination of a suitable device for supporting a bale of cloth or other fabric, a friction-roller suitably pivoted to said machine, said roller coming in contact with the fabric as it passes through said machine, pivoted frames 5, bar 10 for connecting the same, movable bracket 13 on said bar, and rods 61, having points 62 for engaging a roll on which the fabric may be wound, substantially as described, and for the purpose set forth.

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Witnesses:

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