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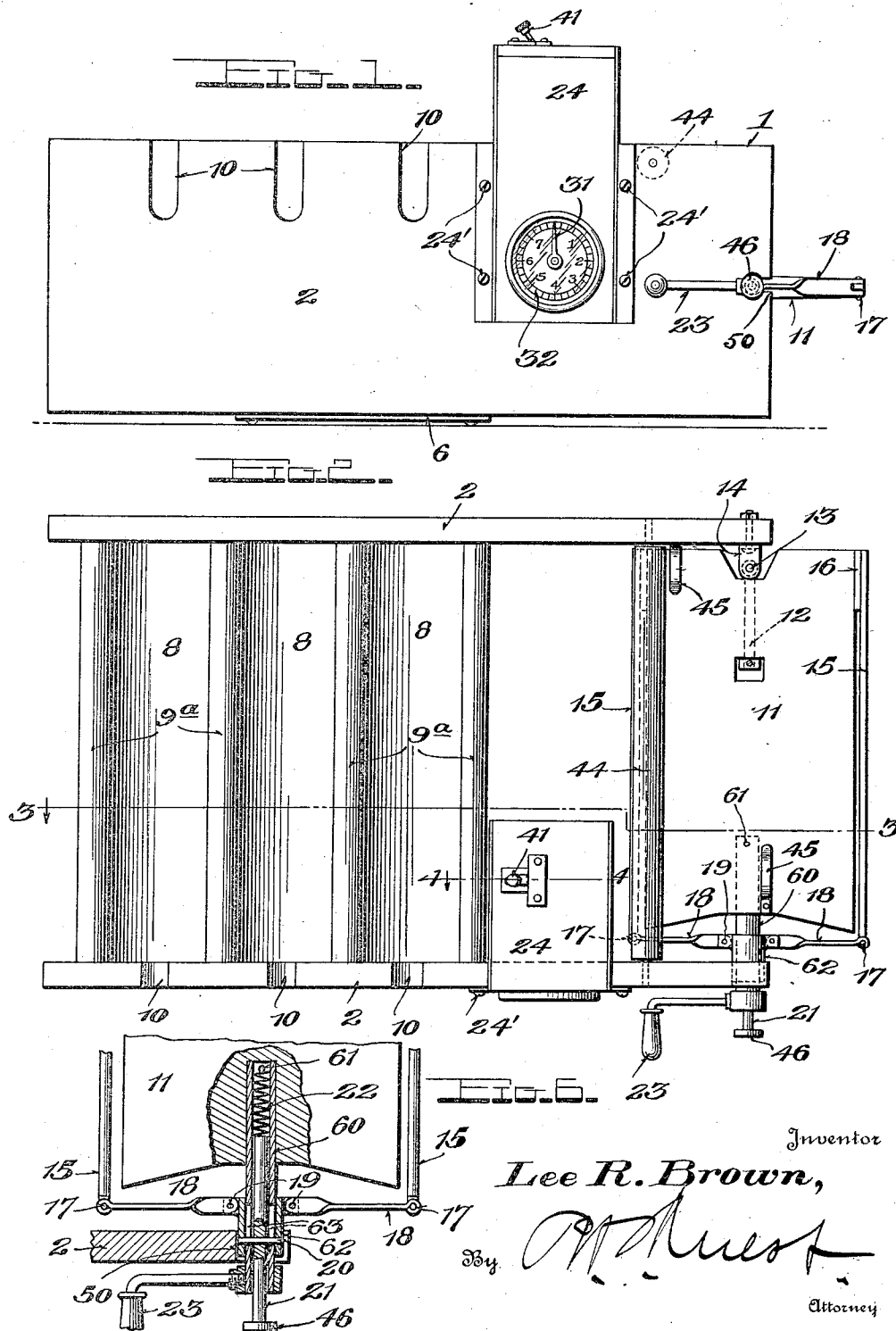
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L. R. BROWN

CLOTH MEASURING MACHINE

Filed June 28, 1923

2 Sheets-Sheet 1



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By

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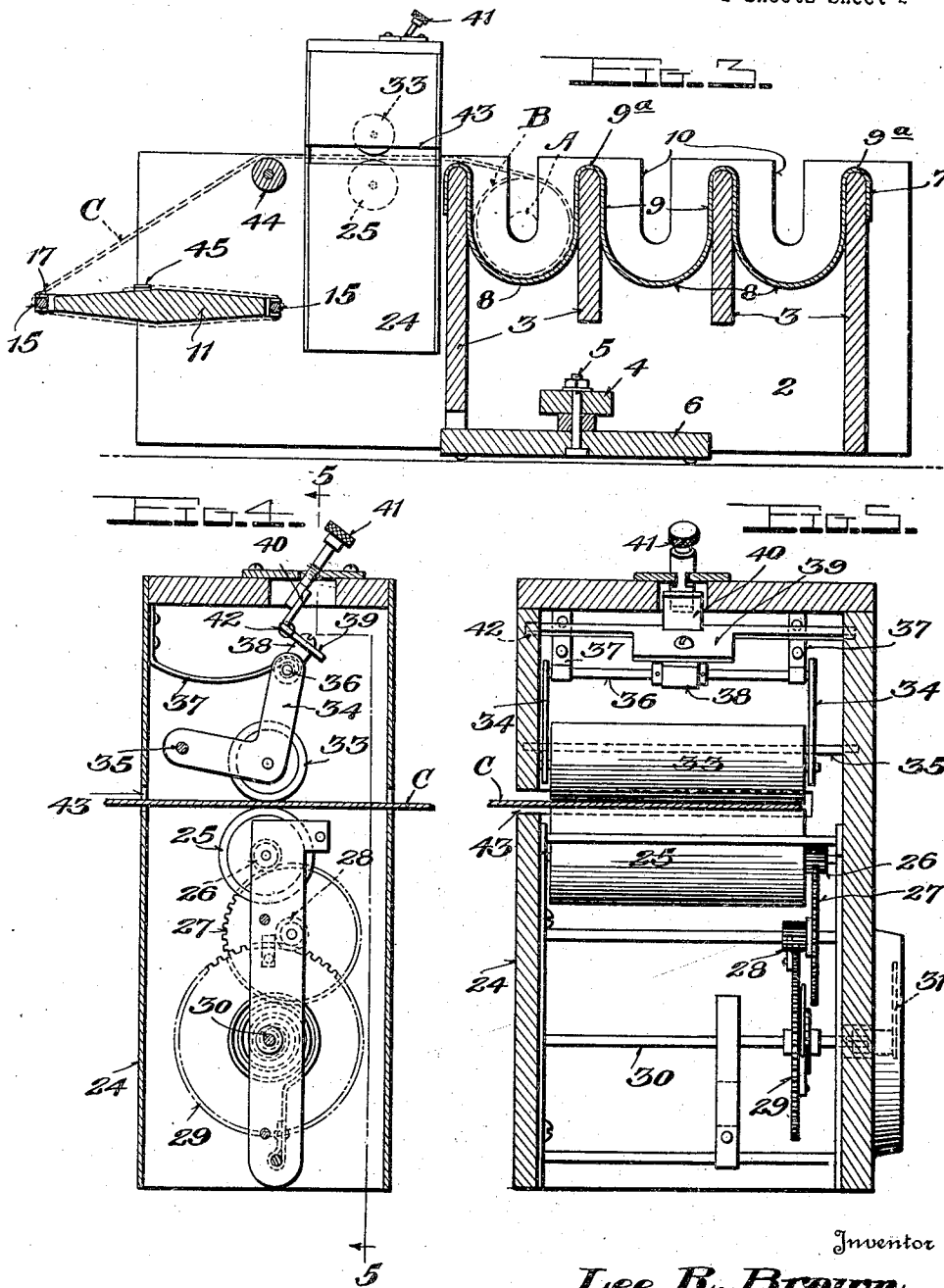
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Attorney

UNITED STATES PATENT OFFICE.

LEE ROY BROWN, OF CHICKASHA, OKLAHOMA.

CLOTH-MEASURING MACHINE.

Application filed June 28, 1923. Serial No. 648,239.

To all whom it may concern:

Be it known that I, LEE ROY BROWN, citizen of the United States, residing at Chickasha, in the county of Grady and State of Oklahoma, have invented certain new and useful Improvements in Cloth-Measuring Machines, of which the following is a specification.

This invention relates to certain new and useful improvements in cloth measuring machines and the primary object thereof is to provide a machine of this character of improved construction which enables the cloth to be easily, quickly and accurately measured and which has novel means for enabling the cloth after measuring, to be easily and quickly removed from the reel.

A further object of the invention is to provide a machine of this type which has means for enabling the cloth gripping rollers of the registering mechanism to be easily and quickly released from cloth gripping position, thereby to allow the cloth to be removed or engaged with the rollers.

Another object of the invention is to provide means for housing a series of rolls of cloth and to enable any selected one to be measured without disturbing the others.

The invention also aims to provide simple measuring mechanism and to provide a machine which is of compact construction; which can be economically produced and which is reliable in operation.

In the drawings:

Figure 1, is a side elevation of the invention;

Figure 2, is a top plan view;

Figure 3, is a section on line 3—3 of Figure 2;

Figure 4, is a section on line 4—4 of Figure 2;

Figure 5, is a section on line 5—5 of Figure 4;

Figure 6, is a detail view of the means for releasing the cloth from the reel.

In proceeding in accordance with the present invention, a casing 1 is employed which has sides 2 connected by transverse partitions or strips 3 and a cross bar 4. The cross bar 4 is pivotally connected by a bolt 5 to a supporting base 6, so as to enable the casing to be freely turned about the bolt. A metal plate 7 is supported by the partitions and is shaped to provide a series of roll-receiving pockets having curved bottoms 8 and vertical sides 9, the latter con-

nected by rounded parts 9^a. The sides 2 of the casing are vertically slotted at 10 centrally of the width of the pockets to receive the axles A of the cloth carrying rollers B.

A winding reel is provided to receive the cloth being measured and includes a plate-like core 11 one end of which has an axle 12 Figure 2 hinged at 13 to a bracket 14 carried by one of the sides of the casing. Rods 15 Figure 2 are spacedly attached at one end to opposite side edges of the member 11, by means of spacing strips 16, while their opposite ends are pivoted at 17 to transverse links 18, the latter being pivoted at 19 Fig. 6 to a hollow axle 62 which is slidable on a tube 60 carried by the opposite end of the member 11 and secured thereto by a pin 61. A rod 21 slides in tube 60 and is tensioned by a coil spring 22 which latter pushes outwardly on the rod 21 to normally hold the rods 15 in their outermost positions. The tube 60 is provided with a handle 23 to enable rotation of the reel while the rod 21 has a finger gripping head 46 on its outer end, and further has a pin 20 the ends of which slide in slots 63 in the tube 60.

The register means includes a case 24, which latter is removably connected to a side of the casing 1, by means of screws 24', and is provided with a lower cloth engaging roller 25, driven by a pinion 26, through a gear 27, the latter driven by a pinion 28. Pinion 28 is driven by a spring actuated gear 29. The shaft 30 of the gear 29 carries a pointer 31 operating over a dial 32 which latter as shown in Figure 1, is graduated to yards and fractions thereof.

The cloth C to be measured, is engaged between the lower roller 25 and an upper roller 33, the latter being journaled in bell cranks 34 Figure 4 pivoted to the case 24 on a shaft 35. The upper ends of the bell cranks are connected to a shaft 36, which latter is engaged by a pair of springs 37 secured to the case 24 at one end and bearing on the shaft at their opposite ends. For the purpose of throwing the roller 33 into and out of engagement with the cloth C, a crank 38 is pivoted on shaft 36 and is secured to the lower arm 39 of a bell crank, the upper arm 40 of which latter has a finger engaging member 41 affixed thereto, the bell crank being journaled at 42 to the case. The inner side and ends of the case 24 are

slotted at 43 to permit the cloth C to be engaged along one side edge thereof by the rollers 25 and 33, while an idler roller 44 is employed to effect movement of the cloth C to the reel. Spring clips 45 Figure 2 are employed to releasably secure the cloth to the reel core 11.

In operation, rolls of the cloth of the same or different varieties are held in the several pockets and the cloth to be measured has its free end passed through the slots 43, over idler 44 and about the reel 11, being held by the spring clips 45 of the latter. The cloth gripping rods 15 now occupy extended position. The reel is then rotated through handle 23, the roller 33 having been previously moved by manipulation of handle 41 into cloth gripping position as shown in Figures 3, 4 and 5 of the drawings. The rotation of the roller 25 through the gearing 26—29 effects rotation of the shaft 30 and therethrough pointer 31 indicating the number of yards and fractions thereof, the gearing being proportioned accordingly, as is well understood in the art. When the desired amount of the cloth has been measured, as indicated by the pointer, the cloth is cut.

By movement of the handle 41 from the position of Figure 4, to the left of the latter the arm 39 of the upper bell crank will be raised, causing the crank 38 to be thrown past dead center, carrying therewith the bell cranks 34 and their roller 33, whereby the latter is held in raised position, releasing its pressure on the cloth and permitting the latter to be removed from between the rollers.

The measuring mechanism is entirely contained in the removable case 24, enabling separate manufacture and assembly of the mechanism and removal for easy accessibility in making repairs or adjustments. The spring which actuates the pointer carrying shaft 30 restores the pointer to zero, when the rollers 25 and 33 are released from engagement with the cloth.

As shown in Figure 1, the casing is slotted at 50 to receive the reel axle 62, and after the cloth has been cut, the knob 46 is gripped and the reel moved outwardly of the casing about pivot 13, whereupon the axle 62 is automatically forced outwardly by the spring 22, causing the links 18 to move rods 15 inwardly toward the reel, releasing the pressure of the rods on the cloth and enabling easy removal of the cloth from the reel, and ready for wrapping.

What is claimed is:—

1. In a cloth measuring machine, a casing having transverse partitions, a sheet metal member bent to form roll-receiving pockets having sides engaged with the opposite sides of the partitions and having rounded tops engaged with the partition

tops and further having rounded bottoms disposed between the partitions, a case carried by a side of the casing, measuring mechanism in the case, said case being disposed adjacent the innermost pocket and having its ends and inner side slotted at points adjacent the tops of the pockets to receive the cloth through the slots, and a cloth-receiving reel carried by the casing and arranged on the opposite side of the case from the pockets.

2. In a cloth measuring machine, a casing, cloth roll holding means carried by the casing, cloth measuring mechanism, a reel, means to rotatably and pivotally connect one end of the reel to one side of the casing, the opposite side of the casing being slotted, a slotted tube rigidly secured to the opposite end of the reel, an axle slidable on the tube and movable into and out of the casing slot, rotating means for the tube, expansible and contractile cloth engaging means connected to the reel and to the axle, a spring pressed pin in the tube having a hand grip on its outer end, and a pin connecting the axle to the first pin and being slidable in said slot of the tube.

3. In a cloth measuring machine, a casing, cloth-roll holding means carried by the casing, cloth measuring mechanism, a reel, an axle connected to one end of the reel, means to pivotally connect the axle to a side of the casing, the opposite side of the casing being slotted, a second axle on the opposite end of the reel movable into and out of said casing slot, and means carried by the second axle to rotate the reel.

4. In a cloth measuring machine, a casing, cloth-roll holding means carried by the casing, cloth measuring mechanism, a reel, an axle connected to one end of the reel, means to pivotally connect the axle to a side of the casing, the opposite side of the casing being slotted, a second axle on the opposite end of the reel movable into and out of said casing slot, means carried by the second axle to rotate the reel, expansible and contractile cloth engaging means carried by opposite sides of the reel, and means in the second axle to effect expansion and contraction of said cloth engaging means.

5. In a cloth measuring machine, a casing, cloth-roll holding means carried by the casing, cloth measuring mechanism, a reel, an axle connected to one end of the reel, means to pivotally connect the axle to a side of the casing, the opposite side of the casing being slotted, a second axle on the opposite end of the reel movable into and out of said casing slot, means carried by the second axle to rotate the reel, cloth engaging rods on opposite sides of the reel secured at one end to the latter and having their opposite end portions movable toward and away from the reel, a spring tensioned

member in the second axle, and links pivoted at one end to the second axle and at their opposite ends to said opposite ends of the rods.

5 6. In a cloth measuring machine, cloth holding means, a reel for receiving the cloth being measured, and measuring mechanism between the holder and reel including a case, a pair of cloth gripping rollers, a pointer, 10 means actuated by one roller to operate the pointer, spring tensioned bell crank means carrying the other roller, a second bell crank pivoted to the case and having an operating handle, and a crank connected to the two 15 bell cranks for moving the second roller into and out of cloth gripping position.

7. In a cloth measuring machine, cloth holding means, a reel for receiving the cloth being measured, and measuring mechanism 20 between the holder and reel including a case, a pair of cloth gripping rollers, a pointer, means actuated by one roller to operate the pointer, manually operable rocking means carried by the case, tensioned means carry- 25 ing the second roller for movement into and out of engagement with the first roller, and means connecting the tensioned means to the rocking means whereby in one position of the rocking means to hold the second 30 roller in operative position and in a second position of the tensioned means to hold the second roller in inoperative position.

8. In a cloth measuring machine, a cas-

ing, cloth roll holding means carried by the casing, cloth measuring mechanism, a 35 reel, means to rotatably and pivotally connect one end of the reel to one side of the casing, the opposite side of the casing being slotted, a plurality of expansible and contractile cloth engaging means carried by 40 the reel, means connected to said expansible and contractile means to simultaneously actuate same and being mounted on the adjacent end of the reel and extending in said casing slot for rotation and movement into 45 and out of the slot, and means for rotating the reel.

9. In a cloth measuring machine, a casing, cloth roll holding means carried by the casing, cloth measuring mechanism, a reel, 50 means to rotatably and pivotally connect one end of the reel to one side of the casing, the opposite side of the casing being slotted, means on the opposite end of the reel and being movable into and out of the 55 casing slot to rotatably support the said opposite end of the reel, means to rotate the reel, and measuring means formed to tension the cloth and being disposed rearwardly of the reel so as to hold said means 60 on the opposite end of the reel in the casing slot and to allow same to be moved out of the slot upon cutting of the cloth.

In testimony whereof I affix my signature.

LEE ROY BROWN.