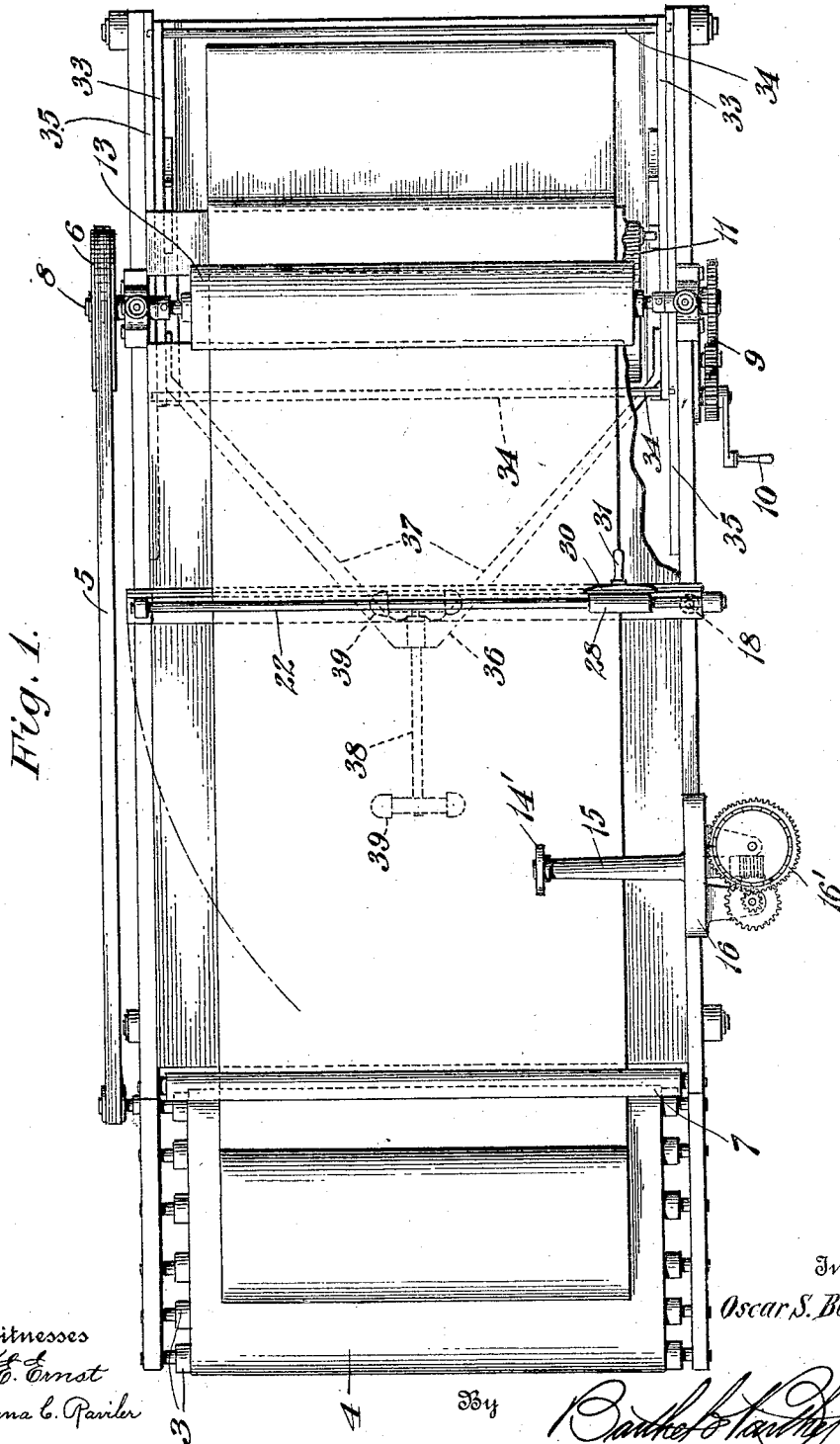


O. S. BLAKESLEE.
CLOTH MEASURING MACHINE.
APPLICATION FILED JUNE 24, 1911.

Patented Apr. 30, 1912.

2 SHEETS—SHEET 1.

1,024,764.



Witnesses
F. E. Ernst
Anna C. Parlier

Inventor
Oscar S. Blakeslee,

Barth & Houghton
Attorneys

1,024,764.

2 SHEETS--SHEET 2.



Fig. 2.



Oscar S. Blakelee,

Robert B. Diaries
Robert B. Diaries

Attorneys

UNITED STATES PATENT OFFICE.

OSCAR S. BLAKESLEE, OF LANSING, MICHIGAN.

CLOTH-MEASURING MACHINE.

1,024,764.

Specification of Letters Patent.

Patented Apr. 30, 1912.

Application filed June 24, 1911. Serial No. 635,185.

To all whom it may concern:

Be it known that I, OSCAR S. BLAKESLEE, a citizen of the United States of America, residing at Lansing, in the county of Ingham and State of Michigan, have invented certain new and useful Improvements in Cloth-Measuring Machines, of which the following is a specification, reference being had therein to the accompanying drawings.

In handling cloth more especially for the retail trade it is desirable that the same be measured rapidly and accurately and be folded ready for wrapping when severed from the bolt. If this be done by hand there is liability to error owing to the stretching of the cloth.

This invention relates to a cloth measuring machine wherein the cloth is so handled as not to be stretched or allowed to slacken during the measuring process and whereby a measured portion is folded neatly for wrapping after it has been severed from the bolt.

The invention consists in the matters hereinafter set forth, and more particularly pointed out in the appended claims.

In the drawings, Figure 1 is a plan view partially broken away of a machine embodying features of the invention; Fig. 2 is a view in side elevation thereof partially broken away; Fig. 3 is a view in longitudinal section.

As herein indicated a horizontal table 1 is mounted on a suitable frame 2 near one end of which are a plurality of tumbler rolls 3 arranged in a segment of a circle below the plane of the table. An endless belt 4 surrounds these rolls, the forward one of which is driven by a belt connection indicated at 5 from a pulley 6. An independent idler 7 is mounted with its upper peripheral portion substantially tangent to the plane of the table between the table and the rolls 3. A shaft 8 on which the pulley 6 is mounted is journaled in the frame of the table and is driven by a gear train indicated at 9 at the opposite side of the table from the pulley, a crank handle 10 or like means being used to turn the train. A drive roll 11 is mounted on the shaft 8 to extend through a slot or opening 12 in the table

and cooperate with a presser roll 13 journaled in suitable bearings above the table, the bearings being projected by springs 14 or the like so that the presser roll yieldingly contacts with the drive roll. A measuring wheel 14' is mounted on an arbor that is rotatable in a bearing arm 15. The latter extends from a base plate 16 hinged to the side of the frame 2 so that the wheel 14' normally rests on the table bed although it may be swung back in a vertical arc if desired. The journal of the wheel 14' is connected with any preferred kind of registering train indicated at 16' having an index wheel with unit marks or divisions showing linear measure, that is, yards, feet and inches, and cutting mechanism is disposed on the table between the measuring device and the feed rolls. This may be of any suitable form but as herein indicated it preferably consists of a flat bar or shoe 17 swiveled at one end to a stud 18 and arranged to lie either at right angles or at 45 degrees to the main axis of the table. A shear plate 19 is secured on its shoe 17 with one edge parallel to a flange 20 on the shoe. A clamping bar 21 held in parallel spaced relation with a guide bar 22 by an outer bracket 23 and inner hinge 24, is pivoted by the latter to a bracket or angle plate 25 on the shoe 17 with a clamping latch 26 at the outer end to hold the clamp firmly against the shear plate 19. A suitably disposed spring 27 counterbalances the parts. A guide bracket 28 in sliding engagement with the bar 22 carries at its lower end a stud 29 on which a cutter disk 30 is journaled, the latter being dish-shaped with a beveled cutting edge which enters the groove between the shear plate 19 and the flange 20 and is held by the latter in shearing rolling engagement with the edge of the shear plate when moved across it, a handle 31 being provided for its convenient manipulation. A folder drawer is suspended by a pair of suitably disposed and arranged side frames 33 below the table, the frames having studs or rolls 34 which travel in suitable guides 35 arranged on the table frame 2. To prevent binding a guide yoke 36 connected by a pair of stay rods 37 to the front of the frames 33 travels on a suit-

able guide rod 38 secured as in brackets 39 below the table top. A cam pin 40 on one end of the roll 11 engages cam bars 41, 42, 43 and 44 so disposed on the side of the frame that the revolution of the stud 40 causes the drawer 37 to reciprocate with a speed equal to the periphery of the roll. As herein indicated the bars are disposed in a parallelogram with the sides at angles of 45 degrees to the path of motion of the rods. Two oppositely disposed rods 41 and 43 are stationary so that the cam pin bears against their inner faces as it revolves. When it reaches the end of bar 41, it passes out by the adjacent rod 42, which is yieldingly mounted to permit this and then bears against the outer face of the latter rod until the other end is reached, where the rod enters a gap between this outwardly yielding bar and the adjacent fixed one 43 to ride along the inner face of the latter. At the other end of the latter a second outwardly yielding bar 44 allows the roll to pass so as to bear against the outer face thereof; this alternate engagement reciprocates the drawer at the desired rates. The drawer lies below the end of the table 1 adjacent the roll 11.

In operation a bolt of cloth is laid upon the tumbling belt and the end thereof is drawn across the table and passed under the measuring wheel until gripped between the feeding and pressing rolls. Thereafter by turning the rolls the bolt is revolved in such manner as not to cause undue strain to the cloth passing over the table and feeding between the rolls under the rotation of the latter. When the desired amount has been measured the cutter is applied in an obvious manner to make either a straight or bias cut. The cloth passing the rolls falls into the reciprocating folding drawer which by its swinging motion causes the cloth to loosely fold in successive layers which can be readily picked up and wrapped for a customer.

The main feature of the machine is the disposition of the parts so that the cloth is not subjected to any undue strain but is kept moving under even tension, the turning of the bolt on the tumbling belt preventing any jerking of the cloth and the travel of the folding drawer insuring even folds of suitable width.

Obviously changes in the details of construction may be made without departing from the spirit of the invention and I do not care to limit myself to any particular form or arrangement of parts.

What I claim as my invention is:

1. A cloth measuring machine comprising a table, means near one end thereof for tumbling a bolt of cloth, a pair of cooperating feed rolls near the other end, means

operatively connecting the rolls and tumbling means to travel at equal speeds and a reciprocating cloth folder operated by the feeding rolls.

2. In a cloth measuring machine, a table, tumbler rolls transversely journaled near one end thereof with their axes lying in a curved plane, an endless carrier belt traveling around the rolls, an idler at the end of the table adjacent the rolls, a pair of feeding rolls near the other end of the table, means operatively connecting the rolls and tumbler belt to travel at the same peripheral speed, and a reciprocable folder on the table adjacent the feeding rolls adapted to travel at the same speed as the peripheries of the rolls.

3. In a cloth measuring machine, a table, tumbler rolls transversely journaled near one end thereof with their axes lying in a curved plane, an idler roll journaled transversely across one end thereof in substantially tangential relation to the face of the table, a pair of feeding rolls journaled transversely across the table near the other end thereof with the line of contact in substantially the plane of the table, means for rotating the feeding rolls, and means operatively connecting the feeding rolls and tumbler rolls to travel at equal peripheral speed.

4. In a cloth measuring machine, a table, tumbler rolls transversely journaled near one end thereof with their axes lying in a curved plane, an idler roll journaled transversely across one end thereof in substantially tangential relation to the face of the table, a pair of feeding rolls journaled transversely across the table near one end thereof with the line of contact in substantially the plane of the table, means for rotating the feeding rolls, means operatively connecting the feeding rolls and tumbler rolls to travel at equal peripheral speed, and reciprocating folding means on the table near the feeding rolls adapted to travel at a speed equal to the peripheral speed of the feeding rolls.

5. In a cloth measuring machine having a table with cloth measuring means thereon, means for feeding cloth from a bolt past the measuring means consisting of bolt tumbling means on one side of the measuring means, a pair of cooperating feed rolls on the other side thereof, means operatively connecting the rolls and tumbling means to travel at equal speeds and a reciprocating folding device operated by the rolls to travel with a speed equal to the peripheral speed of the rolls.

6. In a cloth measuring machine having a cloth measuring device, a pair of cloth feeding rolls on one side of the device, a reciprocable folder for receiving cloth from the rolls, means on the folder operatively con-

necting it to the rolls to travel at the same speed as the peripheral speed of the rolls, and cloth tumbling means on the side of the measuring device opposite the feeding rolls,
5 operatively connected to said rolls to supply cloth thereto at a speed equal to the peripheral speed of said rolls.

In testimony whereof I affix my signature in presence of two witnesses.

OSCAR S. BLAKESLEE.

Witnesses:

HENRY E. ROWELL,
DANIEL D. LEWIS.