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W. EVANS, EXECUTOR.  
SELVAGE FEED FOR CLOTH TENTERING MACHINES.  
APPLICATION FILED JUNE 17, 1908.

970,697.

Patented Sept. 20, 1910.

2 SHEETS-SHEET 1.

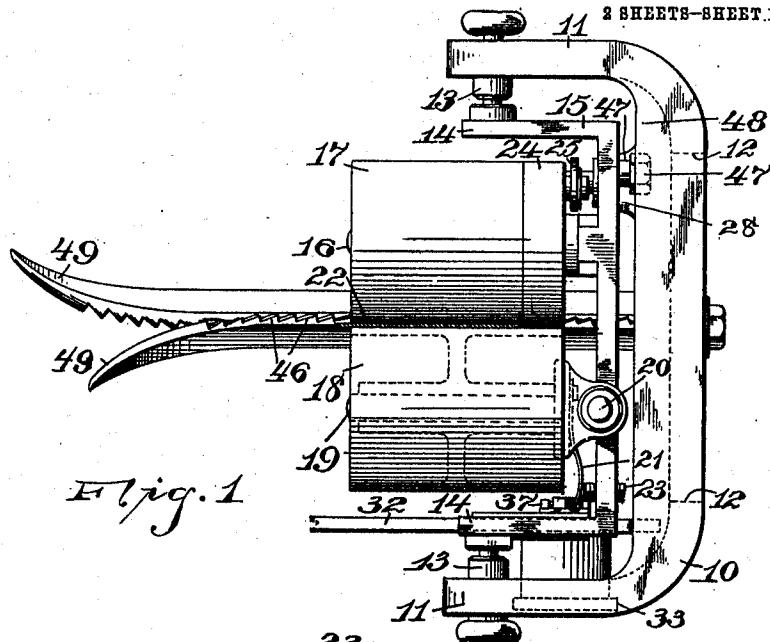


Fig. 1

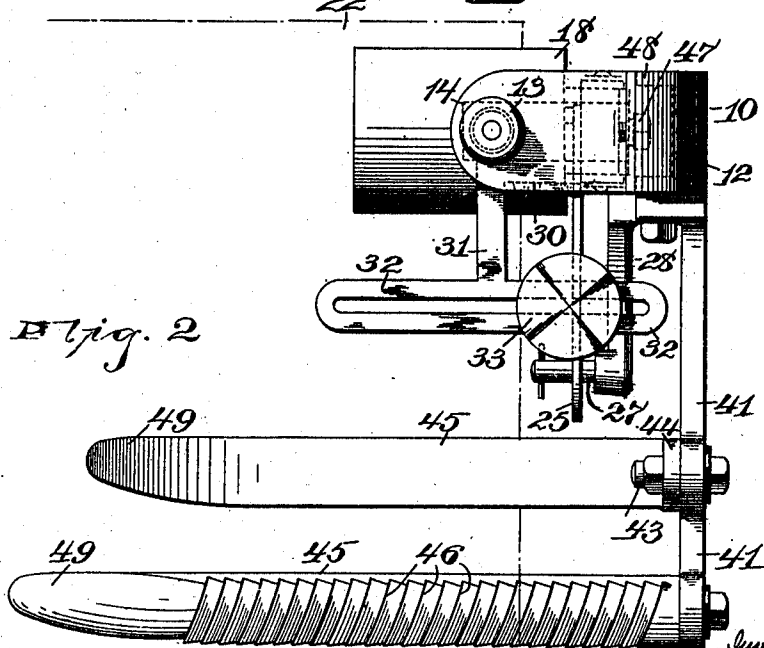


Fig. 2

WITNESSES:  
E. A. Pile  
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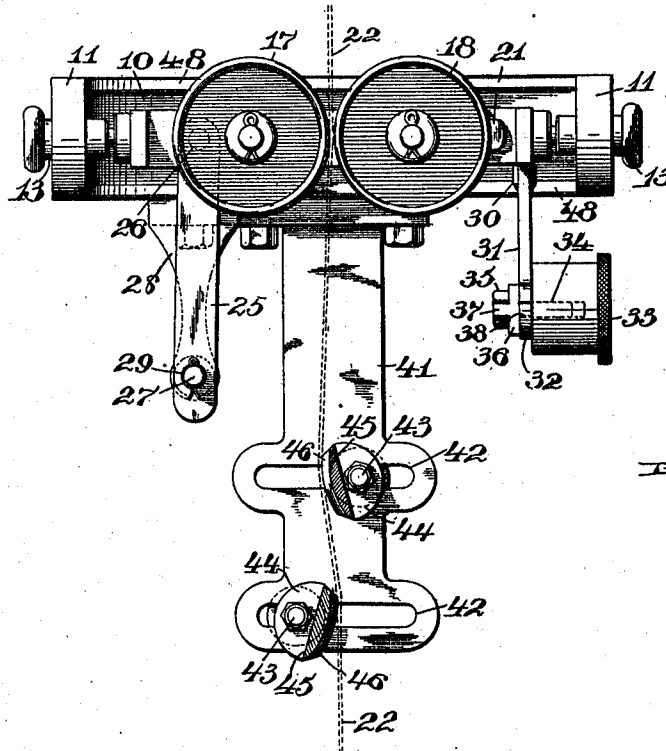


Fig. 3

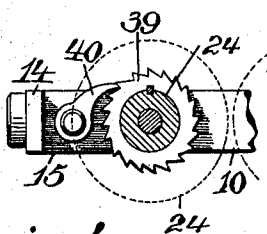


Fig. 4

WITNESSES:  
E. A. Pell  
S. A. Rogers

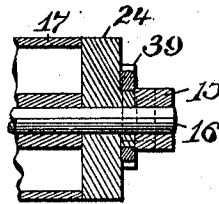


Fig. 5

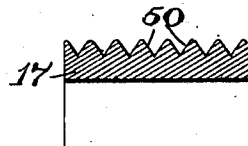


Fig. 6

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ATTORNEY.

# UNITED STATES PATENT OFFICE.

WILLIAM EVANS, OF KEARNY, NEW JERSEY, EXECUTOR OF JEREMIAH C. WHITTLES, DECEASED, ASSIGNOR TO GEORGE W. TAIT, OF KEARNY, NEW JERSEY, ADMINISTRATOR OF ELIZABETH E. WHITTLES, DECEASED, LATE OF KEARNY, NEW JERSEY, WIFE OF SAID JEREMIAH C. WHITTLES.

## SELVAGE-FEED FOR CLOTH-TENTERING MACHINES.

970,697.

Specification of Letters Patent. Patented Sept. 20, 1910.

Application filed June 17, 1908. Serial No. 438,990.

*To all whom it may concern:*

Be it known that I, WILLIAM EVANS, a citizen of the United States, residing in Kearny, in the county of Hudson and State of New Jersey, executor of the estate of JEREMIAH C. WHITTLES, late of Kearny, county of Hudson, and State of New Jersey, have knowledge that the said JEREMIAH C. WHITTLES has invented certain new and useful Improvements in Selvage-Feed for Cloth-Tentering Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as 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 figures of reference marked thereon, which form a part of this specification.

This invention relates to a guide for the selvage of cloth, when the cloth is being fed into a machine, where it is to be fed in a flat or straightened shape, and is particularly adapted for cloth-drying or tentering machines.

The invention consists of a frame adapted to be attached to the machine, one on each side and each frame having a pair of loosely mounted rollers arranged on a yoke which is adapted to be tilted. A fixed roll or a roll with limited movement is arranged to engage one of the loose rolls, and when the cloth engages this fixed or nearly fixed roll, a drag or tension is caused on the tilting yoke which causes the rollers to assume an angle calculated to feed the edge of the cloth within its bounds.

A new feature of the invention is a depending weight which can be adjusted so as to cause a quick or slow return of the tilting yoke and its rolls, whereby the return can be regulated on both heavy and light fabrics or cloths, and one in which the weight can be adjusted to tilt the rolls in either direction.

Another improved feature of this device is a series of scrimp bars or bars having serrated faces, these serrations being arranged at an angle so as to engage the cloth and cause a slight tension on it, and at the same time tend to stretch it toward its outer edge.

The invention is illustrated in the accompanying drawings, in which—

Figure 1 is a plan view of the attachment, 55 and Fig. 2 is a side view of the same. Fig. 3 is a face view of the device. Fig. 4 is a modified form of securing the fixed roll, and Fig. 5 is a section on Fig. 4. Fig. 6 is a detail of the periphery of one of the rollers 60 on a greatly enlarged scale.

The guide comprises a frame 10 which has the substantially parallel arms 11 forming a U-shaped frame, and it has the slot 12 therein as shown in Figs. 1 and 2 whereby it 65 can be adjusted on the machine to which it is attached, the adjusting bolts passing through the slot 12 as will be understood. In each of the arms 11 of the frame 10 is a journal 13 in which is pivotally mounted the 70 substantially parallel arms 14 of the yoke 15, whereby the yoke is adapted to tilt. A fixed shaft 16 is secured in the yoke, being provided with a loose roll 17, and this roll is opposed by a loose roll 18 on a shaft 17 75 which is pivotally secured as at 20, and a spring 21 causes its normal engagement to embrace, with the roll 17, the cloth 22, whereby a tension is caused on the cloth at all times and the engagement of the rollers 80 therewith is assured. The tension is regulated by means of the screw 23. These rolls are free to rotate and when the cloth feeds straight, the rollers assume an approximately horizontal position as shown in 85 Fig. 2.

When the cloth is stretched beyond its desired width it engages a roll 24 which is fixed or nearly fixed on the shaft 16. I may 90 secure the roll for limited movement and still allow a tilting of the frame by means of a link 25 connected at 26 with the roll 24, and on its other end fitting over a pin 27 on a bracket 28 secured to the frame 10. The opening 29, in the link 25, is large 95 enough to permit a movement of the link 25 longitudinally along the pin 27, the pin being made long for this purpose, as will be seen from Fig. 2. When this fixed wheel 24 goes to its limit of movement, the cloth 100 pulls on the wheel and tilts the yoke on its pivotal ends, and causes the rolls to assume an angle so as to feed the cloth slightly toward the center and thus bring

it within its bounds. To regulate the return of the rolls to the normal position, after the cloth 22 passes off the roll 24, and also to regulate this return according to the thickness of the cloth being fed, I secure a bracket 30 with a depending arm 31 and a slotted arm 32, which arm is substantially parallel with the axis of the rolls and is provided with a sliding weight 33 which fits on a bolt 34 passing through the slot in the arm 32, this bolt having a head 35 fitting up against the plate 36, which plate has parallel projections 37 projecting from one side to prevent the turning of the bolt head 35, and similar projections 38 entering the slot in the arm 32, so that the plate 36 cannot turn in the slot, and thus the whole device can be adjusted and loosened or tightened by simply turning on the weight 33. It has been found, however, that in some machines where heavy cloths are used, a spot becomes worn on the fixed roller 24, and to correct this I may secure, on the hub of the roller 24, a ratchet 39, and a pawl 40 is pivoted to the yoke 15 and in this way the roll holds against the upward pull of the cloth, but can turn or be turned in the opposite direction either by action or design, and thus there can be a constant changing of wearing surface for the cloth and it will not be necessary to frequently change the roller 24 or true it up, as is now very often the case.

Projecting down from the frame 10 I place a plate 41 which is provided with suitably disposed slots 42 in which are arranged the bolts 43 entering the flanges 44 of the bars 45, which are known as scrimp bars, and these bars can be swung on the bolts 43 to assume any angle and to be moved toward and from the path of the cloth so as to cause a tension on the cloth 22, as will be seen from Fig. 3. Each bar has a slightly rounded face to make the travel of the cloth smooth, and each face is preferably provided with teeth 46, these teeth being inclined toward the edge of the cloth looking from the direction from which the cloth comes, and these teeth have a tendency to give the cloth a preliminary straightening or guiding which relieves the rollers of a great deal of their labor and makes the operation of the whole guiding device more steady. To limit the movement of the tilting yoke 15 I provide a projection such as a bolt 47 shown in Figs. 1 and 2,

which bolt is adapted to engage the flanges 48 at the top and bottom of the frame 10, and thus act to limit the movement of the tilting yoke.

The guiding bars 45 can be turned to cause a sharp turn of the cloth and make the tension on the teeth 46 very sharp or they can be arranged substantially parallel to give but a slight drag or side pull on the cloth. The outer ends of the bars 45 are curved as at 49, whereby the entrance or the installation of the cloth between the rollers is facilitated. One of the rolls, either the roll 17 or the roll 19, is provided with ridges shown in Fig. 6, the other views being too small to properly illustrate the structure, and these ridges preferably having rounded outer edges so as to form feeding ridges or ribs, when the yoke is tilted, so as to promptly feed the selvage of the cloth from beyond its side limits so as to prevent any spot of excess width in the roll.

Having thus described my invention, what I claim is:—

1. A selvage guide comprising a frame, a tilting yoke in the frame, a fixed shaft on the yoke, a shaft adapted to swing on the yoke, loose rolls on the shafts, a second roll on the fixed shaft and engaging the loose roll on the swinging shaft, means for locking the second roll against movement in the direction of the travel of the cloth and permitting the free rotation of the roll in a direction opposite to the movement of the cloth.

2. A selvage guide comprising a frame, a tilting yoke in the frame, a fixed shaft on the yoke, a shaft adapted to swing on the yoke, loose rolls on the shafts, a second roll on the fixed shaft and engaging the loose roll on the swinging shaft, a ratchet on the second roll, and a pawl on the yoke adapted to engage the ratchet, the pawl and ratchet permitting free rotation in a direction opposite to the movement of the cloth, but locking the second roll against movement by the cloth.

In testimony that I claim the foregoing, I have hereunto set my hand this 15 day of June, 1908.

WILLIAM EVANS,  
*Executor.*

Witnesses:

E. A. PELL,  
WM. H. CAMFIELD.