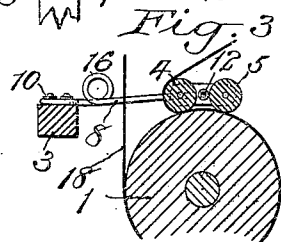
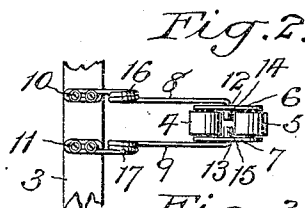
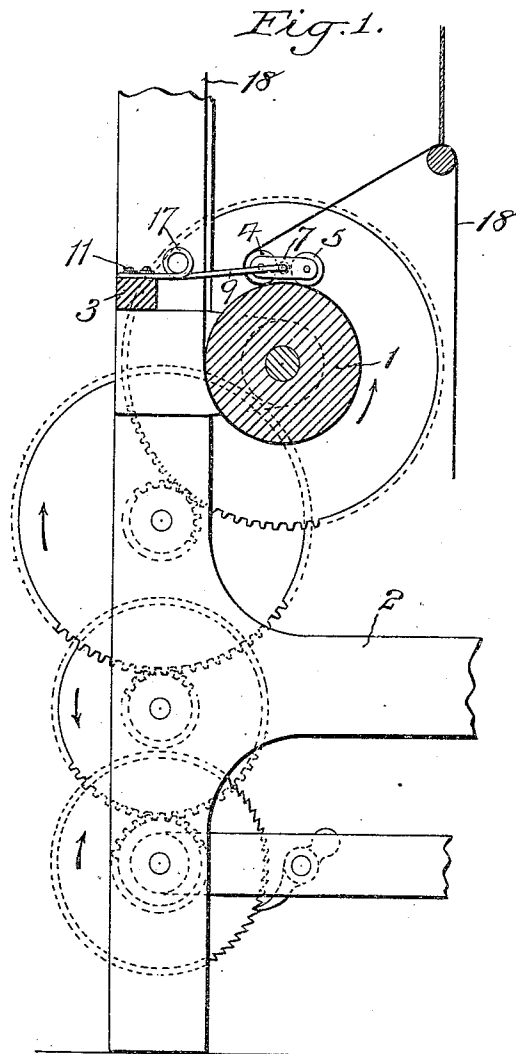


J. SMITH.  
TENSION DEVICE FOR TAKE-UP ROLLS OF LOOMS.  
APPLICATION FILED MAR. 12, 1908.

955,609.

Patented Apr. 19, 1910.



*Witnesses:*  
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*by attorneys*  
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# UNITED STATES PATENT OFFICE.

JOHN SMITH, OF PATERSON, NEW JERSEY.

TENSION DEVICE FOR TAKE-UP ROLLS OF LOOMS.

955,609.

Specification of Letters Patent. Patented Apr. 19, 1910.

Application filed March 12, 1908. Serial No. 420,540.

*To all whom it may concern:*

Be it known that I, JOHN SMITH, a citizen of the United States, and resident of Paterson, in the county of Passaic and State of New Jersey, have invented a new and useful Tension Device for Take-Up Rolls of Looms, of which the following is a specification.

My invention consists in an improved tension device for use in connection with the take-up roll of a loom, the object being to provide a device which will obviate the faults in the present tension devices.

In tension devices now in use, where a single pressure roller is held against the periphery of the take-up roll, there is a tendency to cause the material to slip back on the take-up roll when, for instance, the material changes from one thickness to another thickness or from a woven to an unwoven part as in bag or scarf weaving.

My improved tension device comprises a pair of pressure rollers so arranged that any unevenness in the woven material will be bridged by the two rollers thus insuring an even pressure upon the periphery of the roll when passing over such unevenness in the woven material.

A practical embodiment of my invention is represented in the accompanying drawings, in which—

Figure 1 is a detail view in side elevation partially in section of so much of a loom as will give a clear indication of the position, structure and application of my improved tension device, Fig. 2 is a top plan view of the tension device and a fragment of its supporting cross bar, and Fig. 3 is a detail vertical section through the tension device, the cross bar and the take-up roll.

The take-up roll herein represented is denoted by 1 and the loom frame by 2. A cross bar 3 is located in proximity to the take-up roll, which bar forms the support for the tension devices.

The pressure rollers of the tension device are denoted by 4, 5. A carrier having side plates 6, 7, supports the axles of the pressure rollers. A spring actuated bracket is connected to the carrier at a point intermediate the axles of the rollers, which bracket con-

sists of two spring arms 8 and 9 having their inner end secured to the cross bar 3 by suitable fastening devices such as screws 10, 11, and having their outer ends turned inwardly, as shown at 12, 13, into sockets 14, 15, in the side plates 6, 7, of the carrier intermediate and in alinement with the axles of the pressure rollers 4, 5. These spring arms 8, 9, of the spring actuated bracket are preferably formed with spiral springs forming part of the arms as shown at 16, 17, for causing the bracket to exert the proper pressure on the pressure rollers 4, 5, to yieldingly hold them in contact with the periphery of the take-up roll. As the strip of woven material 18 passes around the take-up roll, the pressure rollers 4, 5, will hold the strip firmly on the periphery of the roll and prevent the material from slipping back on the take-up roll, especially when different thicknesses of material pass around the roll and under the tension device.

In certain classes of goods where the strip 18 is first woven for a distance and then left unwoven or where it is woven thicker at one portion and thinner at another portion, it will be seen that, because of the arrangement of the tension rollers tandem with respect to the rotary movement of the take-up roll, one of the rollers of the tension device will first ride over the uneven portion and then the other roller will ride over said uneven portion thus insuring the even pressure of the tension device on the material as it passes around the take-up roll.

It is evident that the pressure rollers 4, 5, may be of any desired width and size to adapt the device to various widths of fabric.

What I claim is:—

1. The combination with the take-up roll of a loom, of a pair of pressure rollers arranged tandem with respect to the rotary motion of the take-up roll, a roller carrier in which the pressure rollers are mounted and a spring-actuated bracket connecting the carrier with the loom frame for yieldingly pressing the pair of rollers against the take-up roll.

2. The combination with the take-up roll of a loom, of a pair of pressure rollers arranged tandem with respect to the rotary

motion of the take-up roll, a roller carrier  
and a spring-actuated bracket connected to  
the carrier at a point intermediate the axles  
of the rollers for yieldingly pressing the  
5 rollers against the take-up roll.

In testimony, that I claim the foregoing  
as my invention, I have signed my name in

presence of two witnesses, this sixth day of  
March, 1908.

JOHN SMITH.

Witnesses:

CORNELIUS H. STAGG,  
R. H. STERRETT.