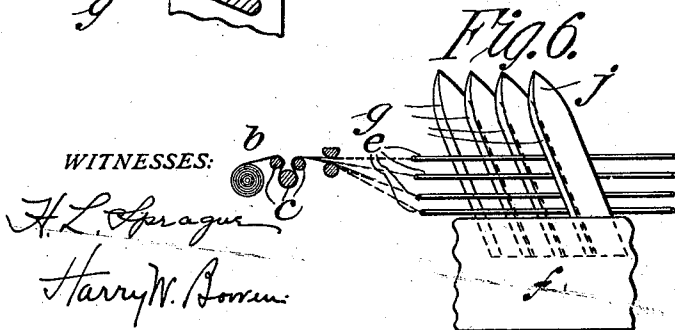
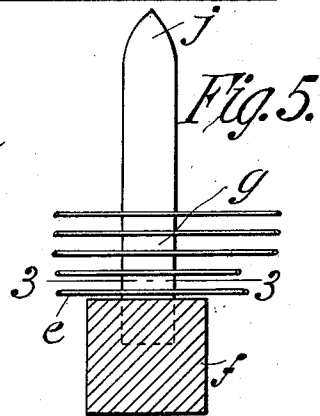
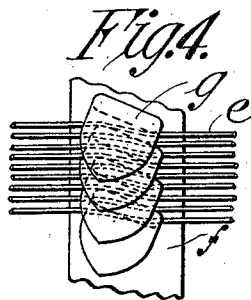
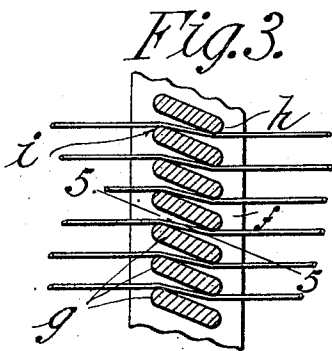
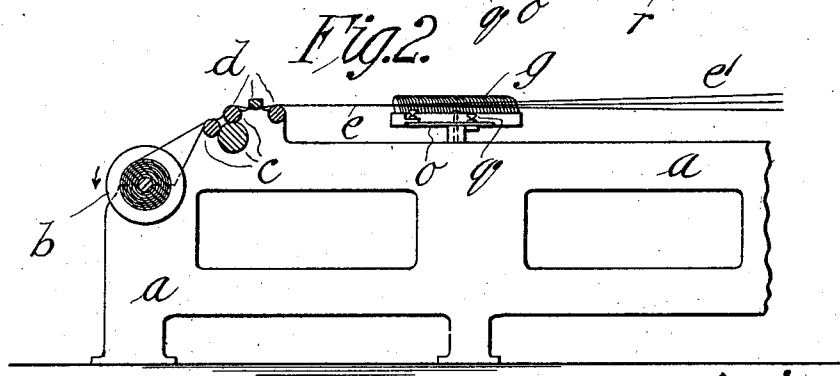
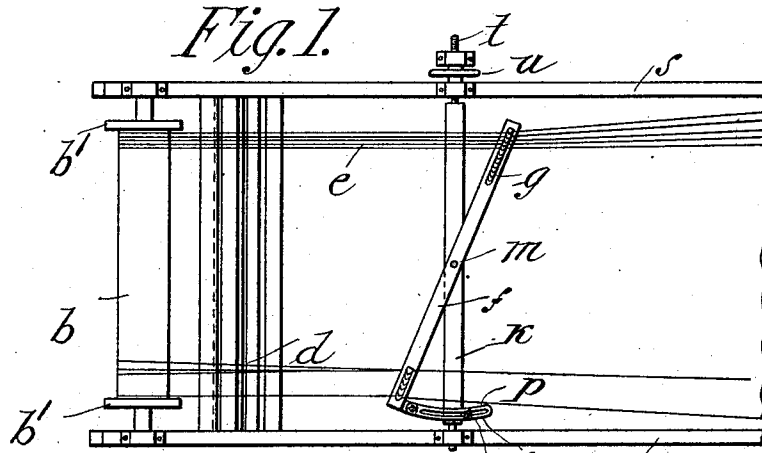


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SLASHER.

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1,014,361.

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SLASHER.

1,014,361.

Specification of Letters Patent.

Patented Jan. 9, 1912.

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To all whom it may concern:

Be it known that I, LOUIS A. AUMANN, a citizen of the United States of America, residing at Chicopee, in the county of Hampden and State of Massachusetts, have invented new and useful Improvements in Slashers, of which the following is a specification.

This invention relates to improvements in "slashers" for winding warp yarns on the beam-roll, and the object is to provide a structure by means of which the warp threads are evenly laid on the loom-beam during the winding operation. Frequently, the warp-threads, after leaving the drying rolls, are crossed as they pass onto the loom or beam roll causing trouble when the beam-roll is put into the loom, and during the weaving operations, the threads are broken or cause trouble as they are drawn from the beam-roll.

A further object of the invention is to provide means for adjusting the warp-threads so that they will all be properly guided during their travel onto the beam-roll; also to provide means for rigidly fastening the individual cones or dents of the comb-bar in place.

In the drawings forming part of this application,—Figure 1 is a plan view showing my improvements and the comb-bar pivotally mounted on a transversely arranged adjustable bar, with means for adjustably securing the comb-bar at any angle of adjustment, and showing a band or sheath of threads. Fig. 2 is a side elevation of Fig. 1 illustrating the passage of the several bands of warp-threads through the comb and smoothing-bars and tension rolls. Fig. 3 is a horizontal, sectional view on the line 3—3 of Fig. 5. Fig. 4 is a top plan view of the comb-bar illustrating the inclined and angular arrangement of the teeth and with the threads from the several bands or wheels separated. Fig. 5 is a vertical, sectional view on the line 5—5 of Fig. 3, and showing one of the teeth nearly full size. Fig. 6 is a side elevational view of Fig. 4 illustrating the inclined pins or dents of the teeth, and the threads from the several bands brought down into a horizontal plane for winding onto the beam-roll.

Referring to the drawings, *a* indicates a portion of the main frame of the machine showing the loom-beam *b*; *c* the tension-

rolls; *d* the smoothing-bars; *e* bands or sheaths of warp-threads that are to be wound onto the loom-beam *b*, the threads having been previously separated into several horizontal planes as shown in Fig. 2, by means of suitable bars (not shown) in the usual manner. The band of warp-threads as it leaves the splitting bars and travels toward the comb-bar *f* lies in several horizontal planes as indicated at *e*¹.

The object of this invention is to change the plane of the band of warp-threads from several horizontal planes to one horizontal plane in which the threads are positively placed, and is accomplished by means of the teeth *g* of the bar *f*, and the smooth bars *d*. The teeth are rigidly secured in said bar. These teeth, it will be noticed, stand at an angle to the line of travel of the warp-threads, as shown in the figures and they also stand at an oblique angle, or are inclined to, the horizontal plane, as indicated in Figs. 4 and 6. The result of this arrangement of the teeth is to cause the warp-threads to engage the front side of the teeth, as indicated at *h*, of one of the teeth, and the rear side of the adjacent tooth, as indicated at *i*.

By reason of the inclined and angular arrangement of the teeth *g* the threads *e* will be positively and automatically separated before they pass under the smooth bars *d* by means of the teeth, as shown in Figs. 4 and 6. These teeth cause each one of the threads of all of the bands to automatically pass onto the beam-roll in a positively separated position side by side in a straight line and without any danger of one thread overlapping or crossing another.

It will be noticed that the upper ends of the teeth *g* are made pointed, as indicated at *j*. This construction permits the threads to be readily separated one from the other in getting the machine ready for the winding operation.

It frequently happens that the width of the several bands is greater than the distance between the heads *b*¹ of the beam-roll *b*, and in order to overcome this objection, the comb-bar *f* is pivotally connected to the adjustable bar *k* at the point *m*. One end of this bar is provided with an arc-shaped member *o* having a slot *p* therein for receiving a thumb-nut *q* by means of which the bar *f* may be locked in any suitable

angle to the bar h , whereby the several bands or sheets of warp-threads will be bent out of their course of travel and brought nearer to each other so that they will wind onto the beam-roll b .

As a means of bringing the band of warp-threads in perfect alinement with the heads b^1 of the beam-roll b the bar h is slidably mounted in the side-plates r and s of the frame, and this bar is provided with a thread on the rod projecting from one end, as indicated at t . u designates a wheel engaging this thread, whereby the bar f may be moved transversely.

The lower ends of the teeth g are rigidly secured in the bar f ; whereas, it is the usual practice to yieldingly secure them in the bar, as by means of a closely coiled spring, the teeth being inserted between the coils whereby when the coils of this spring are tightened their angular adjustment may be effected. This construction, I have found to be ineffective for the purposes intended.

From this construction, it will be seen that the only means employed for positively and automatically positioning the threads of the bands or sheets so that all will pass under the smoothing-bar d , is the comb-bar f which is provided with the oblique and angularly arranged teeth g . The comb-bar is located between the point where the several sheets of threads are separated at e^1 and the smoothing bar d .

What I claim, is:—

1. In a slasher, a pin structure, the teeth of which are placed in an inclined and angular position to the line of travel of the warp-threads to separate and arrange the said threads so that several horizontal planes of them, as they approach the teeth, are positively and automatically brought into one horizontal plane in a side-by-side position for winding on a beam-roll when

the threads are drawn past the pin structure to the beam roll.

2. In a slasher, a beam roll, a comb-bar, the teeth of which are rigidly secured thereto and arranged in an oblique and angular position to the line of travel of several horizontal bands of warp-threads, whereby said warp-threads are automatically changed from the several horizontal planes to one horizontal plane as they engage the beam-roll, and means for retaining the comb-bar at an angle to the line of travel of the threads.

3. In a slasher, the combination with the beam-roll thereof, of a transversely arranged bar, a comb-bar pivotally secured thereto and provided with teeth each tooth of which is arranged at an angle to the line of travel of the warp-threads and inclined to the horizontal plane, and means for locking the comb-bar.

4. In a slasher, a beam-roll, a comb element for causing several horizontal bands of warp-threads to be automatically and positively arranged into a single horizontal plane as they are wound onto the beam-roll, said element comprising a series of teeth arranged in parallel relation to each other and inclined to the horizontal plane and angular to the line of travel, the front and rear edges of the teeth being provided with a curved surface, and means for operating the beam-roll.

5. A comb-bar for slasher machines, the thin flat teeth of which are arranged in an angular position with respect to the line of thread travel and inclined position to and rigidly secured in said bar.

LOUIS A. AUMANN.

Witnesses:

K. I. CLEMONS,
HARRY W. BOWEN.