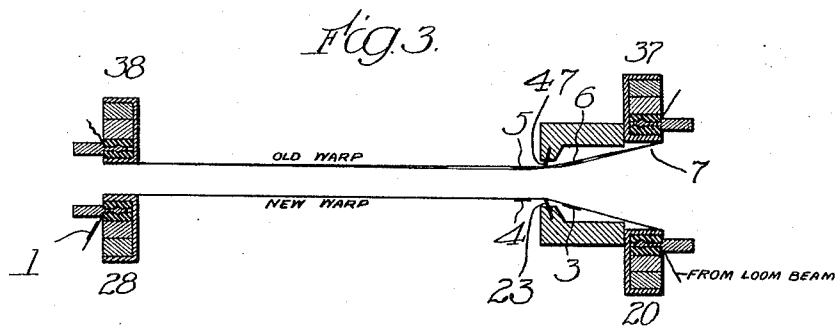
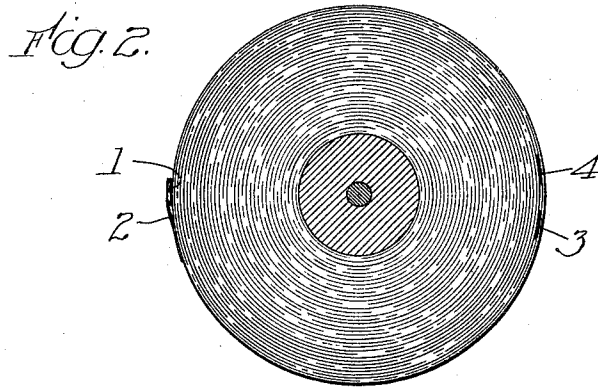
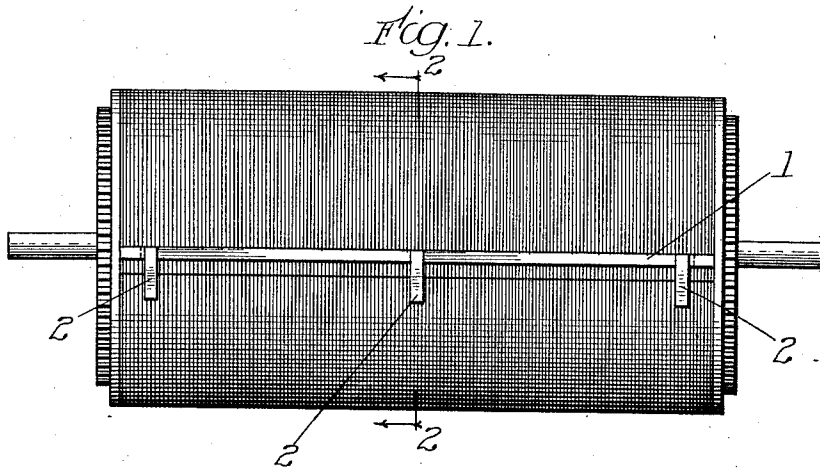


S. B. MATHEWSON.
 MEANS FOR SECURING THE END PORTION OF A WARP.
 APPLICATION FILED JULY 16, 1909.

1,019,332.

Patented Mar. 5, 1912.



Witnesses:
 Robert H. Weir
 George L. Chindahl

Inventor:
 Stanley B. Mathewson
 By Luther L. Miller

UNITED STATES PATENT OFFICE.

STANLEY B. MATHEWSON, OF ATLANTA, GEORGIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO BARBER-COLMAN COMPANY, OF ROCKFORD, ILLINOIS, A COPARTNER-SHIP.

MEANS FOR SECURING THE END PORTION OF A WARP.

1,019,332.

Specification of Letters Patent.

Patented Mar. 5, 1912.

Application filed July 16, 1909. Serial No. 507,903.

To all whom it may concern:

Be it known that I, STANLEY B. MATHEWSON, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have invented certain new and useful Improvements in Means for Securing the End Portion of a Warp, of which the following is a specification.

This invention relates to a method of handling a warp preparatory to its reception by a warp-tying or warp-drawing machine, in order to preserve the threads in substantial parallelism.

The invention also relates to means for securing together in substantial parallelism the free ends of the threads of a warp wound upon a beam.

The invention also refers to means for securing the outer end of a warp to the beam upon which the warp is wound.

In the accompanying drawings, Figure 1 is an elevation of a loom beam having a warp wound thereon, the ends of the warp threads being secured in substantial parallelism and the end of the warp being secured to the beam in accordance with my invention. Fig. 2 is a transverse sectional view through the beam taken in the plane of dotted line 2 2 of Fig. 1. Fig. 3 is a transverse section through the two warp-supporting frames of a warp-tying machine.

The ends of the warp threads wound upon a loom beam or section beam may be secured in substantial parallelism by affixing a tape 1 of suitable material to the threads, as shown in Fig. 1, said tape extending transversely of the threads. A material which I have found satisfactory in practice is the adhesive tape commonly used in passe-partout work. Preferably the ends of the tape 1 are turned under and secured to the threads, as indicated in Fig. 1.

When the tape 1 is used in connection with a loom beam, it is preferably applied to the warp threads as the latter lie upon the first roll of the slasher. The tape may be made to adhere firmly to the threads in any suitable way, as by passing a rubber hand roll across the tape and the threads as they lie on said slasher roll. After the threads have been cut off adjacent to the tape 1, as shown in Fig. 1, the free end of the warp may be secured to the body of warp threads wound on the beam by means of a sufficient number of tabs 2. Said tabs may be short sections

of adhesive tape affixed to the free end of the warp and the body of warp threads, as shown. The beam may now be handled and transported without danger of the end of the warp becoming disarranged.

It will be seen that the method just described of holding the threads in a sheet obviates the necessity of using tongue clamps and similar devices.

When the warp is intended to be tied to a section of another warp by means of a warp-tying machine, as, for example, a machine of the type shown in British Patent No. 10,484 of 1905 to Howard D. Colman, I prevent "crosses" and maintain the threads in parallelism at the point where the selection of threads from the warp will take place in the machine, by the following method. While the beam is in the slasher I attach a tape 3 to the threads as they extend over the first roll and then advance the warp about one inch and apply to the threads another tape 4 parallel to the tape 3. The warp is then run through the rolls and around the beam about one and one-half revolutions. The tapes 3 and 4 should be made to adhere firmly to the warp and should extend at right angles thereto. I have found that the pressure of the slasher rolls is sufficient to cause the moistened adhesive tape to adhere firmly to the warp. The end of the warp having been secured by suitable means and cut off, the beam is transferred from the slasher to the warp-tying machine. In Fig. 3 I have illustrated a sufficient portion of said Colman warp-tying machine to disclose the manner of supporting the warps therein. The characters used in Fig. 3 to indicate the various parts of the machine are those used in the British patent alluded to. The new warp, that is to say the warp wound upon the loom beam, is secured in the clamps 20 and 28 so that the tapes 3 and 4 are on the lower side of the warp and lie at opposite sides of the warp-deflecting ribbon 23, with the tape 4 about one-quarter of an inch away from the ribbon. Immediately after the threads of the new warp have been tensioned, as described in said British patent, the tape 4 is stripped off the warp. In the operation of the machine, the thread-selecting and separating mechanism pulls the threads one by one from the tape 3.

The method just described for handling a warp destined for a warp-tying machine is

valuable when striped warps are to be united. Where the stripes are narrow, the use of two tapes 3 and 4, as just described, is recommended, but where the stripes are
 5 broad enough to permit of close watching by the operator, one tape placed either at the front or at the rear of the ribbon 23 may be sufficient. If placed in front of the ribbon 23 the tape is removed before the
 10 warp-tying mechanism is placed in operation.

In order to prevent "crosses" in the old warp, said warp may have a lease formed therein by means of two thin strips 5 and 6
 15 of steel or other suitable material. The strips 5 and 6 are kept in position at opposite sides of the ribbon 47 until the old warp has been tensioned. After the old warp has been stretched, the strip 5 is drawn to
 20 the front side of the machine and removed and the rear strip is secured in the position indicated at 7 in Fig. 3, so that said strips shall be out of the way of the tying-in mechanism.

25 By the method herein described of handling the warps I am enabled to prevent the crossing of the threads in the warps at the points where such crossing would result in

improper selection of threads by the warp-tying or other machine.

I claim as my invention:

1. A warp having a tape adhesively secured thereto transversely of the warp threads, said tape holding the warp threads in substantial parallelism.

2. A warp beam having a warp rolled thereon, a tape adhesively secured to the warp transversely of the ends of the warp threads, and a plurality of tabs of tape adhesively secured to the end of the warp and to the body of warp threads on the beam.

3. A warp beam having a warp rolled thereon, a tape adhesively secured to the warp transversely of the ends of the warp threads, a tape adhesively secured to the warp and extending substantially at a right angle thereto at a distance inwardly of the first mentioned tape, and a plurality of tabs of tape adhesively secured to the end of the warp and to the body of warp threads on the beam.

STANLEY B. MATHEWSON.

Witnesses:

EDWARD JONES,

W. R. TURMON, Jr.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."

It is hereby certified that in Letters Patent No. 1,019,332, granted March 5, 1912, upon the application of Stanley B. Mathewson, of Atlanta, Georgia, for an improvement in "Means for Securing the End Portion of a Warp," errors appear in the grant and in the heading of the printed specification requiring correction as follows: In the grant strike out lines 9-11 and insert the following statement:

He having assigned his right, title, and interest in said improvement, by mesne assignments, to Howard D. Colman, Luther L. Miller, and Harry A. Severson, copartners, doing business as Barber-Colman Company, of Rockford, Illinois,

Strike out the first two lines of the granting clause and insert the following:

Now, therefore, these Letters Patent are to grant unto the said Howard D. Colman, Luther L. Miller, and Harry A. Severson, copartners, doing business as Barber-Colman Company, of Rockford, Illinois, their heirs or assigns

In the heading to the printed specification, strike out the words "to Barber-Colman Company, of Rockford, Illinois, a copartnership." and insert the words *to Howard D. Colman, Luther L. Miller, and Harry A. Severson, copartners, doing business as Barber-Colman Company, of Rockford Illinois.*; and that the said Letters Patent should be read with these corrections therein that the same may conform to the record of the case in the Patent Office.

Signed and sealed this 18th day of March, A. D., 1913.

[SEAL.]

C. C. BILLINGS,
Acting Commissioner of Patents.