No. 743,674. PATENTED NOV. 10, 1903.

H. BARDSLEY.

CENTER SELVAGE MOTION.

APPLICATION FILED MAR. 23, 1903.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

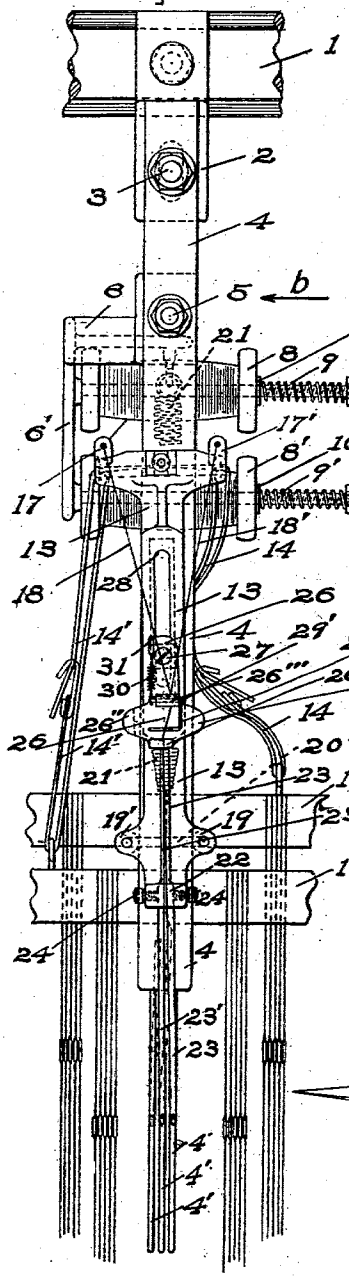


Fig. 2.

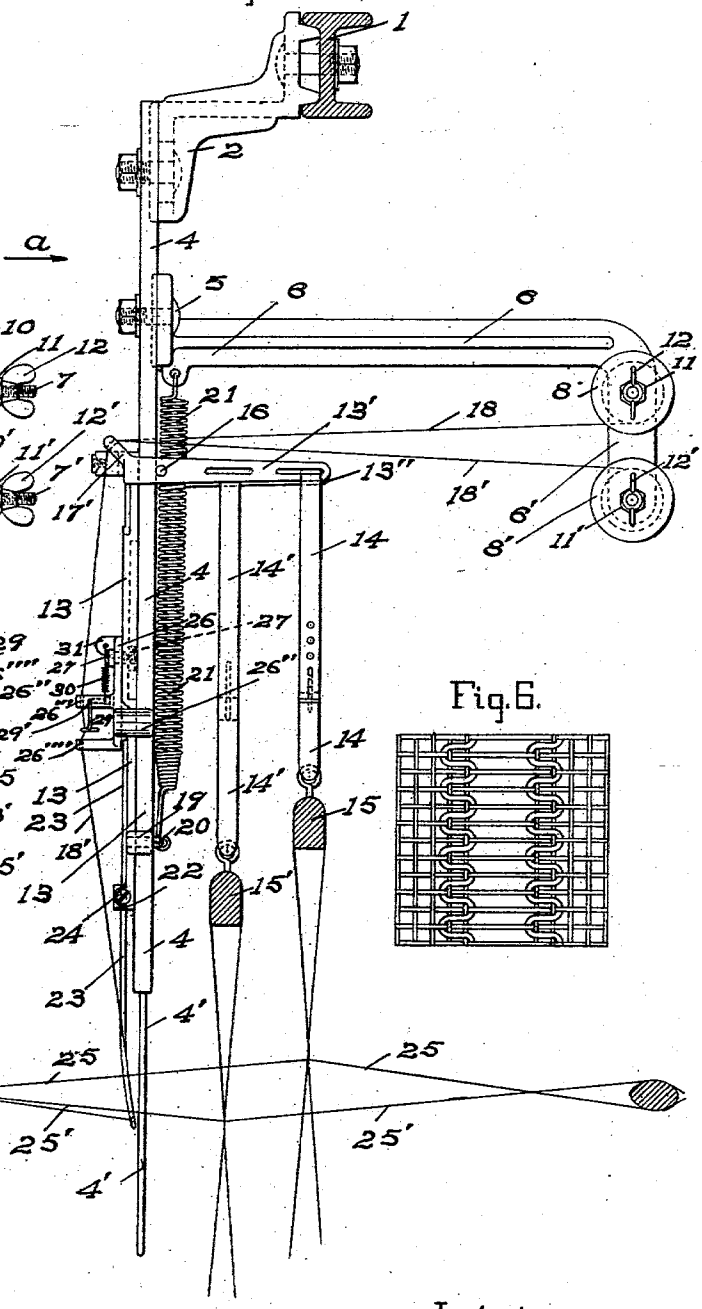


Fig. 6.

Witnesses;
H. M. Rugg.
M. Haas.

Inventor;
Henry Bardsley

By
John L. Dewey
Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 743,674. PATENTED NOV. 10, 1903.

H. BARDSLEY.

CENTER SELVAGE MOTION.

APPLICATION FILED MAR. 23, 1903.

NO MODEL. 2 SHEETS—SHEET 2.

Fig. 3.

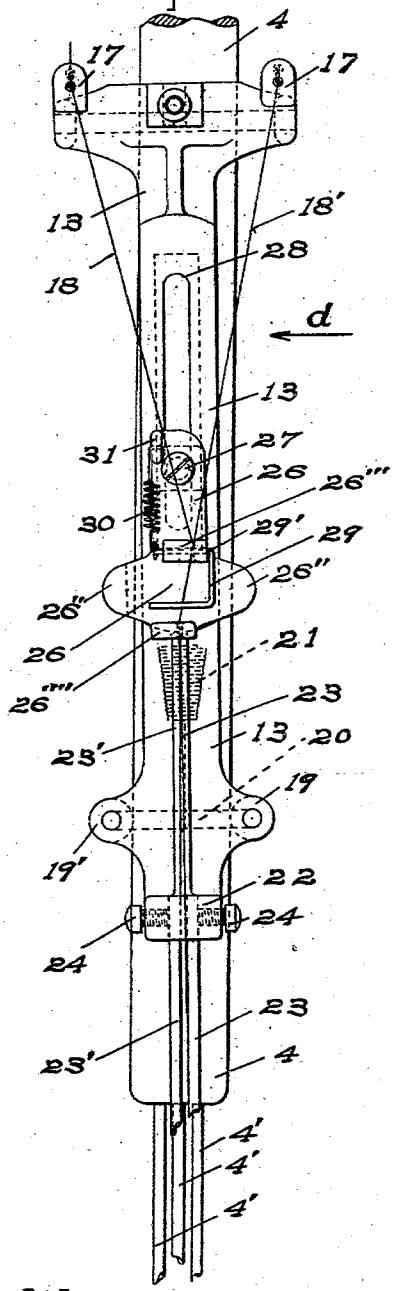


Fig. 4.

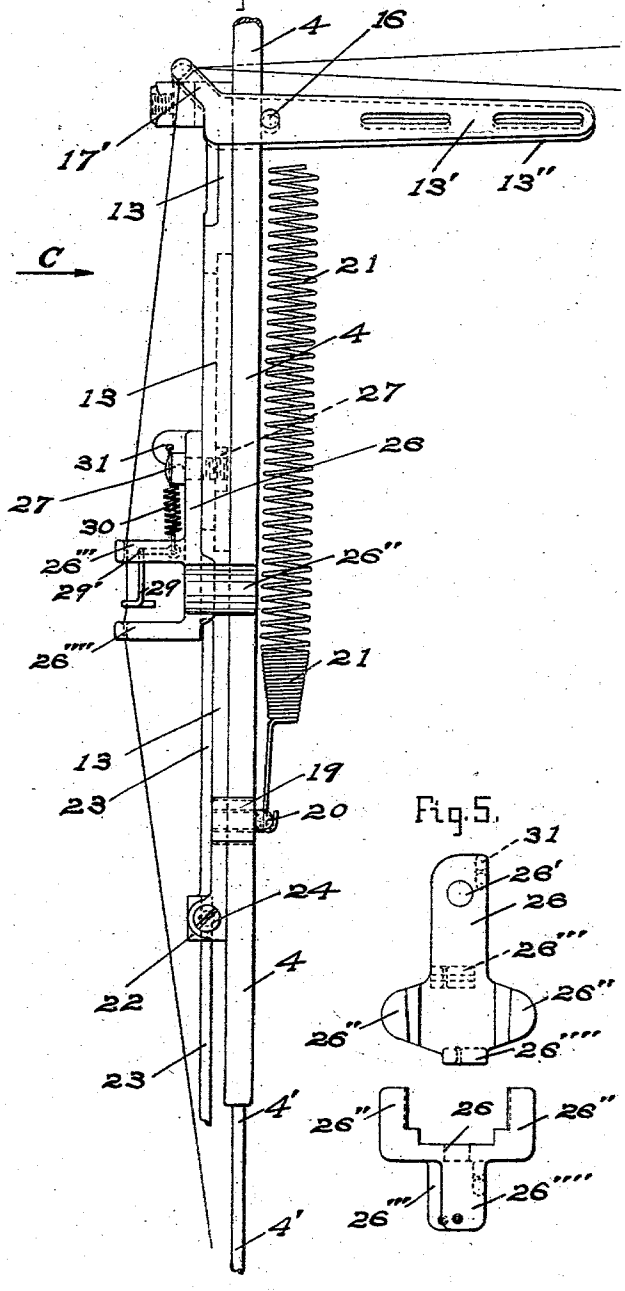


Fig. 5.

Witnesses:

H. M. Rugg.

M. Haas.

Inventor;

Henry Bardsley

By

John C. Dewey.

Attorney.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

No. 743,674. Patented November 10, 1903.

UNITED STATES PATENT OFFICE.

HENRY BARDSLEY, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO CROMPTON & KNOWLES LOOM WORKS, OF WORCESTER, MASSACHUSETTS, A CORPORATION OF MASSACHUSETTS.

CENTER-SELVAGE MOTION.

SPECIFICATION forming part of Letters Patent No. 743,674, dated November 10, 1903.

Application filed March 23, 1903. Serial No. 149,017. (No model.)

To all whom it may concern:

Be it known that I, HENRY BARDSLEY, a citizen of the United States, residing at Providence, in the county of Providence and State of Rhode Island, have invented certain new and useful Improvements in Center-Selvage Motions, of which the following is a specification.

My invention relates to an attachment for looms for weaving center selvages, or what is ordinarily termed a "center-selvage motion," which is used on looms upon which more than one width of cloth is woven at the same time to produce a selvage in the center or some other place in the body of the warp.

The object of my invention is to make an improved center-selvage motion of simple construction and operation; and my invention consists is certain novel features of construction of my center-selvage motion, as will be hereinafter fully described.

Referring to the drawings, Figure 1 is a front elevation of a center-selvage motion embodying my improvements looking in the direction of arrow *a*, Fig. 2. Fig. 2 is a side view looking in the direction of arrow *b*, Fig. 1. Fig. 3 shows some of the parts shown in Fig. 1 looking in the direction of arrow *c*, Fig. 4. Fig. 4 is a side elevation of the parts shown in Fig. 3 looking in the direction of arrow *d*, same figure. Fig. 5 is a detached detail of the motion-adjusting plate shown in Figs. 3 and 4, and Fig. 6 shows a detached portion of the fabric in which there is a center selvage formed by means of my center-selvage motion. Figs. 3 to 6, inclusive, are shown on an enlarged scale.

In the accompanying drawings, 1 is a detached portion of a loom-arch or some stationary part to which is bolted a stand 2. To the stand 2 is bolted by a bolt 3 the upper end of a rigid bar or plate 4, which extends in a vertical position back of the lay and in front of the harnesses.

Upon the rear side of the plate 4, at the upper part thereof, which plate forms a support for the several parts of my center-selvage motion, is secured by a bolt 5 the inner end of a rigid horizontal arm 6, which has a downward extension 6′ on its outer end forming a spool-stand and having two parallel pins or shafts 7 and 7′ extending out therefrom, which form shafts or supports for the rotary spools 8 and 8′, on which are wound the doup-threads forming the center selvage edges. The pin or shaft 7 has mounted on its projecting end a spiral spring 9, bearing at its inner end against a washer 10, loose on the pin 7, and at its outer end against a nut 11, turning on the threaded end of the pin 7. A check-nut 12 is also threaded on the end of the pin 7. On the pin 7′ are corresponding parts, (lettered 9′, 10′, 11′, and 12′.)

The arm 6, carrying the spool-stand, extends out some distance from the plate 4 and is central to the motion of the slide, to be hereinafter described, so that the doup-threads move in a longer radius, thus reducing the amount of slack in the threads and reducing the strain thereon.

Mounted on the stationary plate 4 is a vertically-moving and rocking slide 13, consisting of a plate widened at its upper end and having two rearwardly-extending parallel arms 13′ and 13″, to one of which, as 13′, is attached a strap 14, extending to the upper edge of the harness 15. To the other arm, as 13″, is attached the strap 14′, extending to the upper edge of the harness 15′. A wire or small rod 16 extends back of the plate 4 and is secured at its ends in the two arms 13′ and 13″ and acts to hold the upper end of the slide 13 in position on the plate 4. On the front side of the widened part of the slide 13, at the upper end of said slide 13, are two thread-guides 17 and 17′ for the doup-threads 18 and 18′ from the spools 8 and 8′, respectively.

The slide 13 is widened at its lower end and has two rearwardly-extending projections 19 and 19′ thereon which straddle or extend over the opposite edges of the plate 4 and serve as a fulcrum for the rocking motion of the slide 13 at its upper end. A wire or small rod 20 extends back of the plate 4 and is secured at its ends to the two projections 19 and 19′ and acts to hold the slide 13 at its lower end on said plate 4.

A coil spiral spring 21 is attached in this instance at its upper end to the arm 6 of the spool-stand and at its lower end to the wire or small rod 20 and acts to raise the slide 13 on

the plate 4 on the upward movement of the harness-frames. At the lower end of the slide 13 is a hub or projection 22 to receive the two needles 23 and 23', which are secured in the hub 22 by screws 24. The needles 23 and 23' have eyes at their ends to receive the doup-threads 18 and 18' on the spools 8 and 8', which threads are carried to one side or the other of the warp-threads 25 and 25', which pass between the three stationary pins 4', projecting down from and secured in the lower end of the plate 4.

I will now describe the equalizer and motion-adjusting stand forming a part of my center-selvage motion.

A plate 26 (shown detached in Fig. 5) extends upon the front side of the slide 13 and is adjustably attached thereto by a bolt 27, which extends through a hole 26' in the plate 26 and through an elongated opening or perforation 28 in the slide 13. A nut 27 is secured upon the inner end of the bolt 27. (See Fig. 4.)

The position of the plate 26 by means of the slot 28 and bolt 27 may be adjusted as desired to regulate the amount of rocking motion of the slide 13. Said plate 26 has extending rearwardly from its outer edges ears or projections 26'', which straddle or extend over the edges of the plate 4, as shown.

The engagement of the projections 26'' with the edges of the plate 4 limits the amount of rocking motion of the slide 13. Extending from the front portion of the plate 26 are two parallel projections 26''' and 26'''', having holes therein which guide the doup-threads 18 and 18'. The upper projection 26''' has an opening therethrough to support the bent portion 29' of the rocking arm or equalizer 29, which has a loop in one end to receive the doup-threads and at its other end is attached to one end of a light spiral spring 30. The other end of said spring is attached to an ear 31 on the plate 26.

From the above description, in connection with the drawings, the operation of my center-selvage motion will be readily understood by those skilled in the art.

The center-selvage motion is attached to the stand 2 on the loom-arch or some other stationary part, as shown in the drawings, with the needles extending downwardly therefrom. If preferred, the center-selvage motion may occupy a reverse position extending below the warp-threads, with the needles projecting upwardly through the warp-threads, as will be well understood.

The downward movement of one of the harnesses, as 15', will through the strap 14' move downwardly the slide 13 on the plate 4 against the action of the spring 21 and at the same time rock the slide 13 to carry the needles 23 and 23' to the right, as shown in Fig. 1. The engagement of one of the projections 26'' on the plate 26 with the edge of the plate 4 limits the rocking motion of the slide 13. On the release or upward motion of the harnesses 15' the spring 21 will act to raise the slide 13, and on the downward motion of the other harness, as 15, through the strap 14 the slide 13 will be moved downwardly and also rocked to carry the needles 23 and 23' to the left, as shown by broken lines in Fig. 1. The proper tension on the doup-threads 18 and 18' is obtained by means of the tension attachment connected with the spools and also by the equalizer attachment on the plate 26.

The advantages of my improvements in center-selvage motion will be readily understood by those skilled in the art.

The adjustment of the rocking motion of the slide 13 is obtained by simply moving up or down the plate 26. Any wear on the projections 26'' on the plate 26, which engage the edges of the plate 4, is provided for by adjusting the plate 26 on the plate 4.

The spools carrying the doup-threads are supported on a stand attached to the rigid plate 4, and therefore the weight of said spools is not carried on the movable slide 13, as has been customary heretofore, and larger spools which hold a larger amount of thread may be used.

It will be understood that the details of construction of my improvements may be varied, if desired.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a center-selvage motion, the combination with a stationary plate, of a vertically-moving and rocking needle-slide supported on said plate, and means for actuating said slide, and a motion-adjusting plate supported on said slide and vertically adjustable thereon, and means for adjusting said plate, substantially as shown and described.

2. In a center-selvage motion, the combination with a stationary plate, of a vertically-moving and rocking needle-slide supported on said plate, and means for actuating said slide, and a motion-adjusting plate adjustably supported on said slide and having guides thereon for the doup-threads, and an equalizer or tension device on said plate for the doup-threads, substantially as shown and described.

3. In a center-selvage motion, the combination with a stationary plate, of a vertically-moving and rocking needle-slide supported on said plate and connected therewith at each end, and means for actuating said slide, and one end of the slide having two projections thereon which extend over the edges of the supporting-plate and serve as a fulcrum for the rocking motion of the slide at its opposite end, substantially as shown and described.

HENRY BARDSLEY.

Witnesses:
JOHN C. DEWEY,
M. HAAS.