

(No Model.)

E. DIXON.

TOP ROLL SADDLE FOR SPINNING MACHINES.

No. 524,103.

Patented Aug. 7, 1894.

Fig. 1.

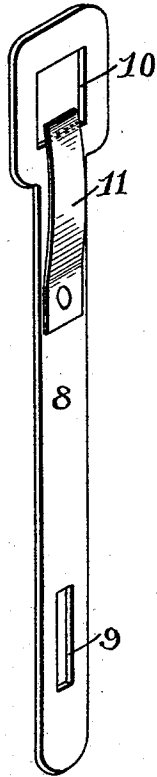


Fig. 2.

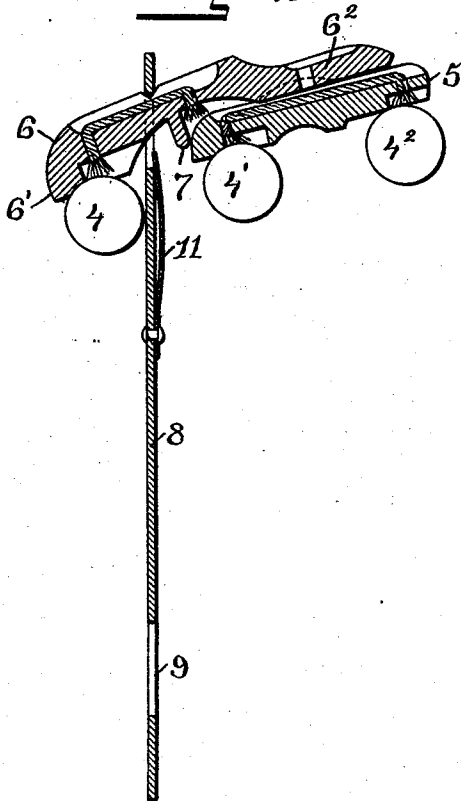
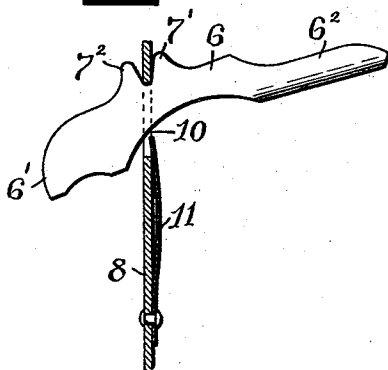


Fig. 3.



WITNESSES:

Henry J. Miller
Chas. H. Luther Jr.

INVENTOR:

Ezra Dixon
by Joseph A. Miller & Co.
Attys.

UNITED STATES PATENT OFFICE.

EZRA DIXON, OF BRISTOL, RHODE ISLAND.

TOP-ROLL SADDLE FOR SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 524,103, dated August 7, 1894.

Application filed March 8, 1894. Serial No. 502,805. (No model.)

To all whom it may concern:

Be it known that I, EZRA DIXON, of Bristol in the county of Bristol and State of Rhode Island, have invented certain new and useful Improvements in Top-Roll Saddles for Spinning-Machines; and I hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification.

This invention has reference to an improvement in top-saddles and weight-links used to hold the saddles of the top-rolls in spinning machines on the sliver passing between the rolls.

The invention consists in the peculiar and novel construction thereof, as will be more fully set forth hereinafter.

The object of the invention is to connect the weight-link with the top-saddle so that, while the link is readily connected with and disconnected from the saddle, the link is not liable to be separated from the saddle during the adjustment of the saddles or their temporary removal. To this end I provide the upper end of the weight-link with an aperture large enough to permit the saddle to pass through and partially close the lower part of the aperture by a spring, and I provide the top-saddle with suitable stops so that the saddle may be inserted readily but can only be removed by the exertion of sufficient force to overcome the resiliency of the spring and only in one direction.

Figure 1 is a perspective view of my improved weight-link. Fig. 2 is a sectional view showing the weight-link in the operative connection with the top-saddle and the relation of the saddles with the top-rolls of a spinning machine. Fig. 3 is a side view of a top-saddle and a sectional view of the upper part of the weight-link connected therewith.

In the drawings 4 indicates the front roll, 4' the middle roll, and 4² the rear roll of a spinning frame. The lower saddle 5 bears on the middle roll 4' and the rear roll 4²,—the top saddle 6 bears at its front part 6' on the front roll 4, the rear portion 6² bears on the lower saddle 5 which is usually provided with a bearing at or near its middle, as is indicated in broken lines in Fig. 2; both sad-

dles are provided with oil-chambers and wicks for lubricating the bearings.

For the purpose of holding the weight-link more securely on the top-saddle, I provide the same with a stop or stops over which the weight-link can only be drawn by exerting strain on the spring, the stop or stops may be located in different positions and to illustrate this I have shown the top-saddle 6 in Fig. 2 with the stop 7 on the under side of the saddle, and have also provided the saddle shown in Fig. 3 with the stops 7' and 7² the use of which will be more fully described hereinafter.

The weight-link 8 is provided near its lower end with the slot 9 for securing the weight or inserting the weighted lever by which the holding-down strain is exerted. The upper end of the weight-link is provided with the opening 10 made of such form and dimensions that the top-saddle can be readily passed through the opening 10. The spring 11 is secured at its lower end to the weight-link 8, the upper end of the spring 11 extends above the lower margin of the opening 10 and reduces the vertical length of the opening.

In describing the operation I will refer first to the construction of the top saddle, shown in Fig. 2, in which the rear end 6² is of such dimensions that it can be readily inserted into the opening 10 of the weight-link until the stop 7 is reached, when the spring 11 will bear against the stop 7 and strain has to be exerted to pass the weight-link over the stop 7. As the spring 11 can only yield in one direction, it is evident that the weight-link cannot be moved backward over the stop 7 and as the forward end 6' of the top saddle is of such dimensions that it cannot pass through the opening 10 in the weight-link without exerting strain on the spring 11, therefore, the top saddle and weight-link will remain connected with each other during any handling or adjustment and can only be separated by the exertion of extra strain especially used to separate them.

In the arrangement shown in Fig. 3 the stop 7' operates exactly as does the stop 7 shown in Fig. 2, that is it prevents the weight-link from being moved over the top saddle toward the rear end 6². The stop 7² prevents the forward movement of the weight-link and

by reason of the stops 7' and 7² the weight-link is securely yet flexibly held until the same is withdrawn by the exertion of sufficient force to overcome the resiliency of the spring 11.

The weight-link with the spring 11 when used with top-saddles without the stops secures the link to the saddle and facilitates the handling, because the shorter front part of the saddle cannot pass through the contracted opening. It is evident that the stops 7, 7' and 7² form enlargements of the vertical dimensions of the top-saddle and that these stops are located on one or both sides of the link,—if, now, at the point where the weight-link is required to be located a notch, or equivalent, of less vertical dimension exists, the same result will be secured.

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

1. A weight-link for use on top-saddles of spinning machines having an opening near its upper end through which the top-saddle may be passed and a spring which partially closes the opening and resists the free pas-

sage of the saddle through the opening in the link, as described.

2. The combination with a weight-link for use on top-saddles having an opening of such dimensions that the top-saddle may be passed through the same such opening being partly closed by means of a spring adapted to resist the free passage of the saddle, and a top-saddle the vertical dimensions of which on each side of the weight-link, when in its normal position, are greater than the contracted opening in the link, as described.

3. The combination with a top-roll saddle provided with the stops 7' and 7², of the weight-link 8 having the opening 10 and spring 11 adapted to retain the weight-link in the required position on the saddle when the saddle is removed from the top-rolls, as described.

In witness whereof I have hereunto set my hand.

EZRA DIXON.

Witnesses:

M. F. BLIGH,
JOSEPH A. MILLER, Jr.