





# UNITED STATES PATENT OFFICE.

EZRA DIXON, OF BRISTOL, RHODE ISLAND.

## SPINNING-MACHINE.

No. 905,668.

Specification of Letters Patent.

Patented Dec. 1, 1908.

Application filed March 28, 1904. Serial No. 200,358.

*To all whom it may concern:*

Be it known that I, EZRA DIXON, a citizen of the United States, residing at Bristol, in the county of Bristol and State of Rhode Island, have invented a new and useful Improvement in Spinning-Machines, of which the following is a specification.

This invention has reference to an improvement in spinning machines, and more particularly to an improvement in the means for securing the stirrup straps to the weight levers of spinning machines.

In drawing rolls of spinning machines pressure is exerted on the top rolls by weighted levers connected to the top roll saddles by stirrup straps. As heretofore constructed the weight levers have fixed notches in their free ends on which the weights are suspended. Under the varying conditions of the roving the weights are moved in the notches to vary the pressure of the weights on the top rolls. In practice this method has been found inadequate for the fine adjustment required of the pressure exerted on the top rolls by the weights.

The object of my invention is to more finely and accurately adjust the pressure exerted on the top rolls by the weights than has heretofore been done, and I accomplish this object by adjustably securing the lower ends of the stirrup straps to the weight levers at a point adjacent their fulcrums.

My invention consists in the peculiar and novel construction of mechanism for adjustably securing the lower ends of the stirrup straps to the weight levers of spinning or similar machines, as will be more fully set forth hereinafter.

Figure 1 is a transverse sectional view of part of a spinning machine, showing my improved mechanism for adjustably securing the lower end of the stirrup strap to the weight lever. Fig. 2 is an enlarged detail view of the fulcrum end of the weight lever, showing the adjustable slide with the notch for holding the lower end of the stirrup strap, and Fig. 3 is a transverse sectional view through the adjustable slide and weight lever, taken on line X X of Fig. 2.

In the drawings, *a* indicates the front rail of a spinning machine, *b* the roller stand, *c c* the bottom rolls, *d d* the top rolls, *e* the front top roll saddle, *f* the back top roll saddle, *g*

the stirrup strap, *h* the weight lever, *i* the eye forming the fulcrum for the weight lever, and *k* the weight secured to the free end of the weight lever *h* by the link *k'*. The top of the stirrup strap *g* is secured to the front top roll saddle *e* by the notch *e'* in the saddle in the usual way, as shown in Fig. 1, and the lower end *g'* has the elongated slot *g<sup>2</sup>*. The weight lever *h* has the hook-shaped fulcrum end *h'* and the free end *h<sup>2</sup>* in which is the notch *h<sup>3</sup>* for the weight link *k'*. The fulcrum end *h'* of the lever extends through the slot *g<sup>2</sup>* in the lower end of the stirrup strap and hooks into the fulcrum eye *i* which in turn is rigidly secured to the front rail *a* of the machine.

The adjusting mechanism consists of the slide *h<sup>4</sup>* having the flange *h<sup>5</sup>* on which are the projections *h<sup>6</sup> h<sup>8</sup>* forming the notch *h<sup>7</sup>* for the lower end *g'* of the stirrup strap, and the slot *h<sup>8</sup>* through which the slide is adjustably secured to the lever *h* by the screw *h<sup>9</sup>*, as shown in Fig. 3. The flange *h<sup>5</sup>* abuts on the lower edge of the lever *h* and extends forward toward the fulcrum end of the lever to form the notch *h<sup>7</sup>* which extends into the slot *g<sup>2</sup>* in the lower end of the stirrup strap in a position for the lower end *g'* of the stirrup strap to enter the notch, as shown in Fig. 2.

In adjusting the pressure exerted by the weight *k* on the top rolls *d d* with my improved adjusting mechanism, the screw *h<sup>9</sup>* is loosened and the slide *h<sup>4</sup>* moved toward the fulcrum end *h'* of the lever *h* to increase the pressure and away from the fulcrum end to decrease the pressure. When the required pressure is attained the screw *h<sup>9</sup>* is tightened, firmly securing the slide *h<sup>4</sup>* to the lever in the adjusted position.

By the use of my improved adjusting mechanism on the weight levers the pressure exerted by the weights on the top rolls is more accurately and finely adjusted and a more perfect roving is obtained than has heretofore been done.

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

In a spinning machine, the combination of the stirrup strap *g* formed with an elongated slot *g<sup>2</sup>* in its lower end, the weight lever *h* having the hook-shaped fulcrum end *h'* and the free end *h<sup>2</sup>* in which is the notch *h<sup>3</sup>*, and

the adjusting mechanism consisting of the slide  $h^4$  having the flange  $h^5$  on which are the projections  $h^6$   $h^6$  forming the notch  $h^7$  which engages with the slot  $g^2$  and an upright flange  
5 slotted at  $h^8$ , and the screw  $h^9$  for adjustably securing the slide  $h^4$  to the lever  $h$  through the slot  $h^8$ , as described.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

EZRA DIXON.

Witnesses:

ADA E. HAGERTY,  
J. A. MILLER, Jr.