

(No Model.)

E. DIXON.

SADDLE FOR TOP ROLLS OF SPINNING MACHINES.

No. 369,504.

Patented Sept. 6, 1887.

Fig. 1.

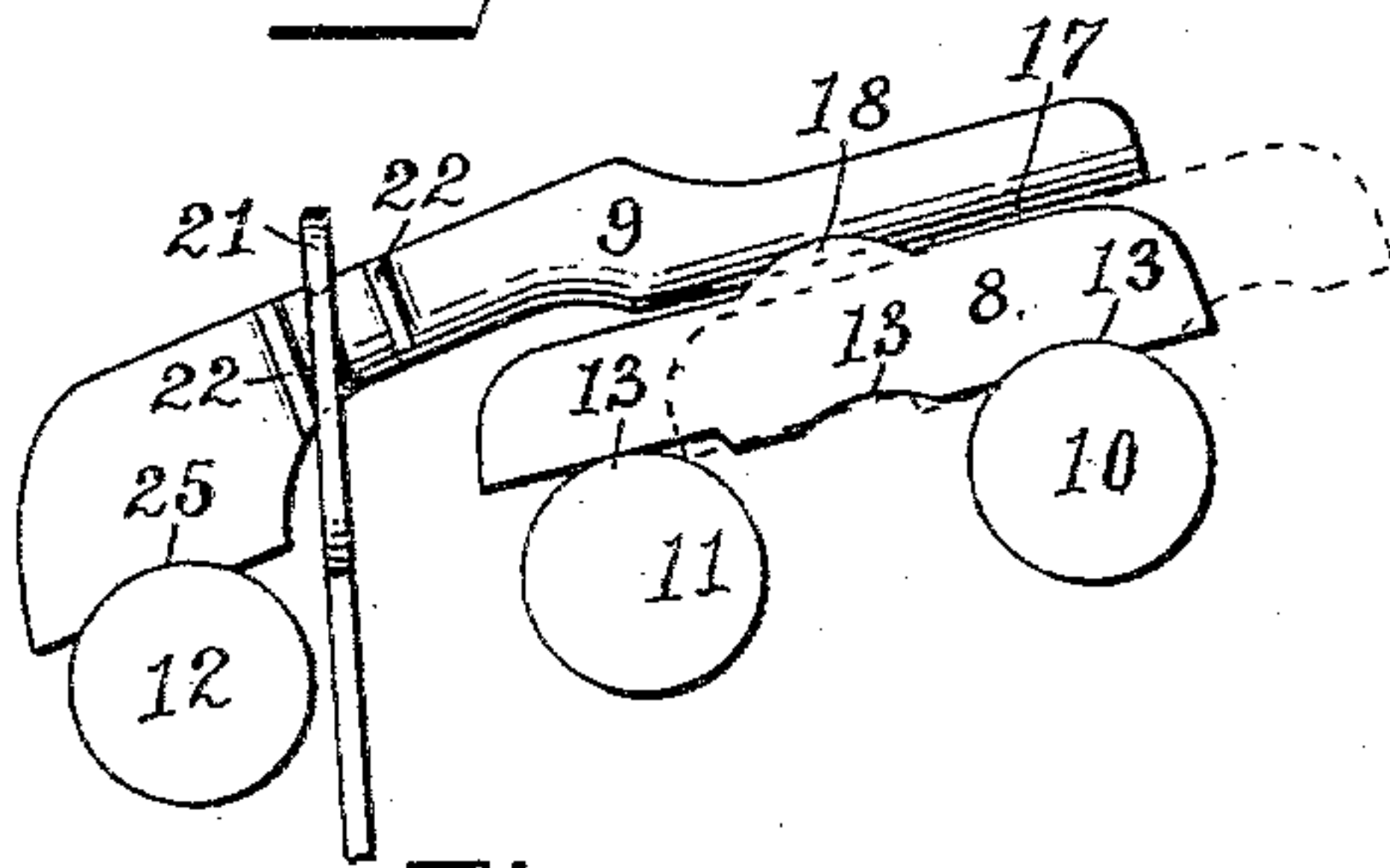


Fig. 2.

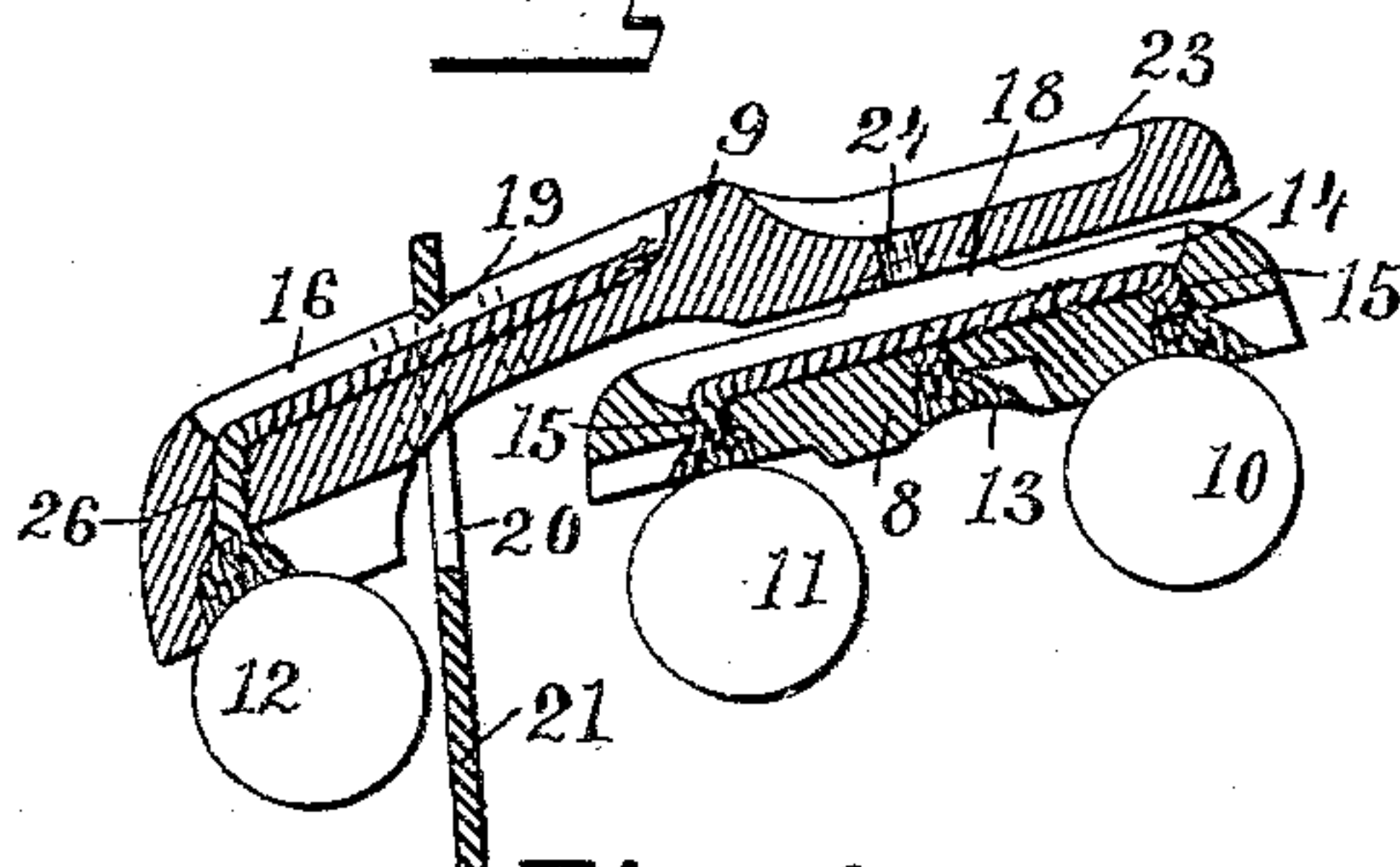


Fig. 3.

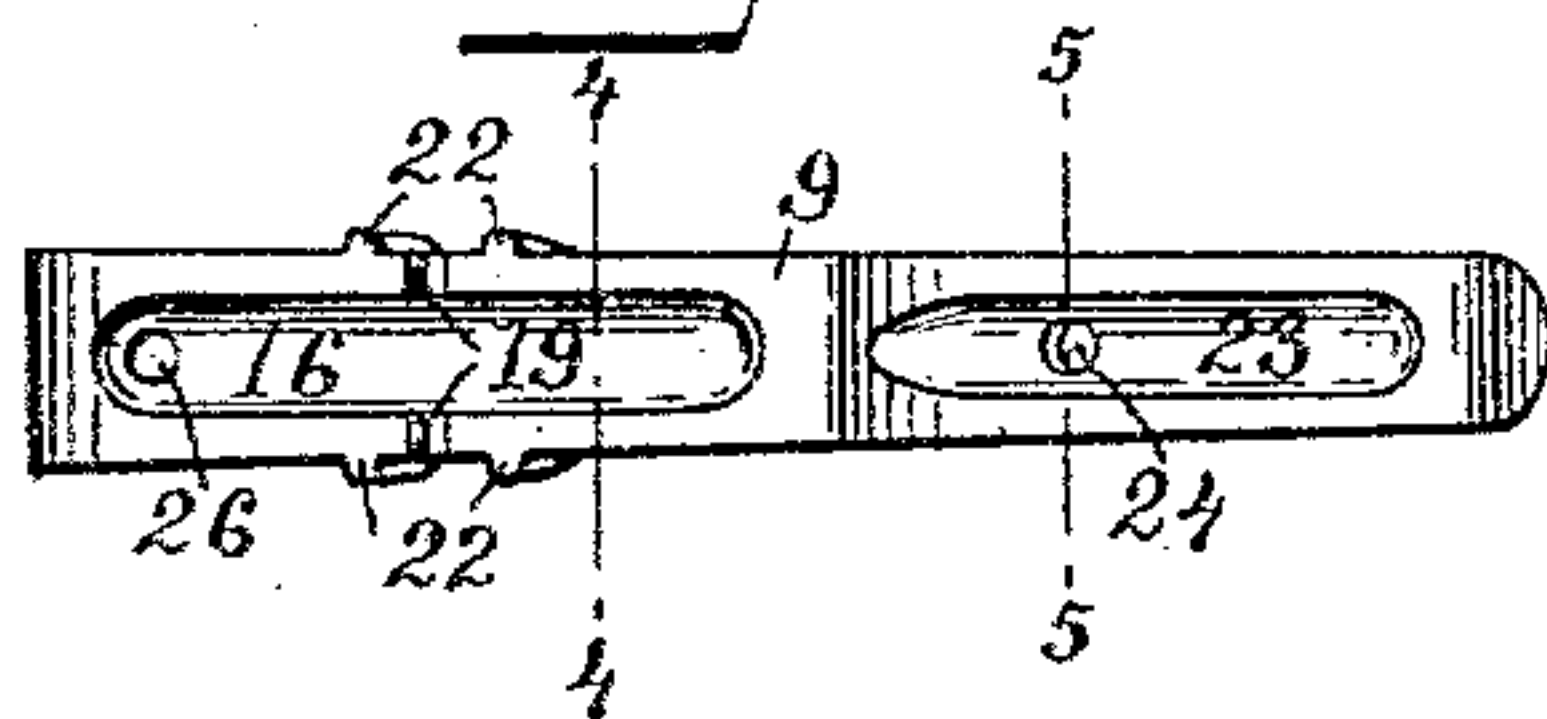


Fig. 4.

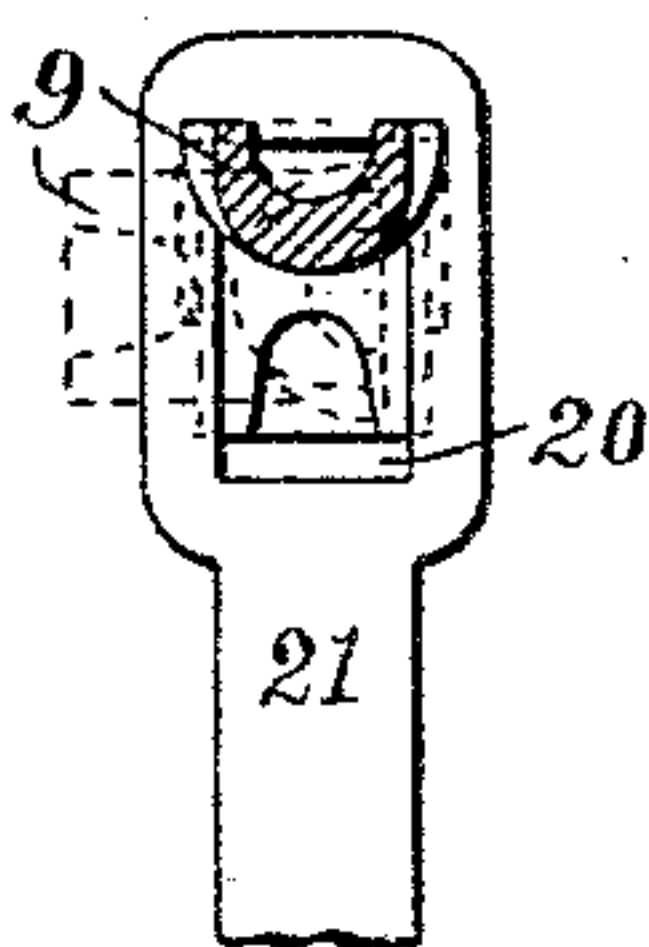
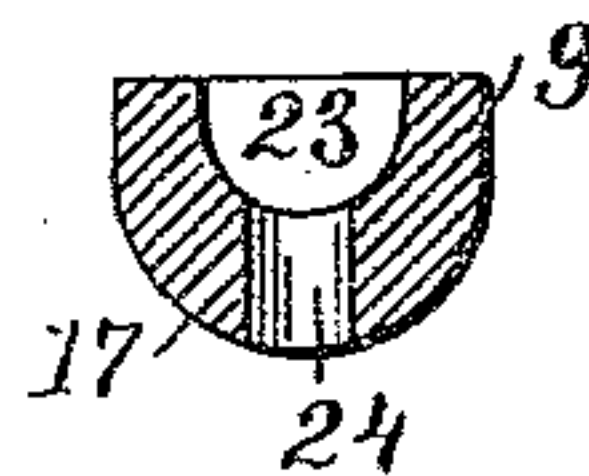


Fig. 5.



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EZRA DIXON, OF BRISTOL, RHODE ISLAND.

SADDLE FOR TOP ROLLS OF SPINNING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 369,504, dated September 6, 1887.

Application filed February 28, 1887. Serial No. 229,109. (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
5 Improvements in Saddles for Top Rolls of Spinning-Machines, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

10 This invention relates to a device called a "saddle," which is designed to be superposed upon the top rolls of a set of drawing-rolls of a drawing or spinning frame, for the purpose of exerting a certain pressure upon the top rolls.

15 A set of drawing-rolls usually comprises three vertical pairs of drawing-rolls, the under ones of which receive a positive motion, while the upper rolls run idle and are driven by the friction of the interposed sliver or filament.

20 The saddle is imposed upon the top or upper rolls, and is generally provided with connected adjustable mechanism for giving a pressure to the saddle to effect the desired pressure on the top rolls. The pairs of rolls run at different
25 relative speeds to draw the sliver, and as the drawing of short staple necessitates the use of all the rolls, while drawing long staple only requires the front and back pairs, the saddle has to exert pressure upon all the top rolls in
30 drawing short staple, but only on the front and back pairs in drawing long staple.

In saddles composed of two relatively-adjustable parts the weight-link, which connects the saddle with the pressure or weight mechanism,
35 is swung loosely upon the saddle, and sometimes a notch is provided on the saddle for the link to ride in. In the heretofore construction of saddles the weight-link has an extended play, so that when the saddle is adjusted for
40 the different lengths of staple the weight-link, being unrestrained, will move out of proper position, and will thereby cause undue pressure on some of the top rolls, and this freedom of the link upon the saddle is a disadvantage
45 which results in serious defects in the evenness of the drawn sliver.

The object of my invention is to limit the throw or movements of the weight-link upon the saddle, so that the link may be prevented
50 from being dislodged from its proper position when adjusting the saddle.

To the above purposes my invention consists in the certain novel and peculiar construction of the device, as hereinafter fully described and
55 claimed.

In order that my invention may be fully understood, I have illustrated in the accompanying drawings and will proceed to describe the best form of my invention so far devised by me, which form is susceptible of various modifica-
60 tions.

In the accompanying drawings, Figure 1 represents a side elevation of a two-part saddle mounted upon three top rolls whose ends are shown, together with the upper portion of the
65 weight-link, the saddle being shown in contracted position in full lines and resting upon all the rolls, and the lower member being shown in extended position and clearing the middle roll in broken lines. Fig. 2 represents a ver-
70 tical longitudinal sectional view of Fig. 1. Fig. 3 represents a top plan view of the upper member of the saddle detached. Fig. 4 represents a transverse sectional view of the upper member of the saddle, taken on line 4 4 in
75 Fig. 3, together with the weight-link mounted thereon between the stops. The broken-line position shows how the member is turned upon its side to allow the link to be placed in position between the stops. Fig. 5 represents a sec-
80 tional view of the upper member of the saddle, taken on line 5 5 in Fig. 3.

Referring to the drawings, the saddle comprises a lower member, which is designed to rest upon the back roll, 10, or the middle roll,
85 11, or both, and the upper member, 9, for resting upon the lower member and the front roll, 12. The lower member, 8, is elongated in shape, and is formed with three depressions, like 13, on the under face thereof, for the mid-
90 dle and back rolls, and the roll-depressions are fed with a lubricant by means of wicking, which lies in the wick-cavity 14, from which lead the perforations 15, one for each roll-depression. The upper member, 9, is narrow and
95 much longer than the lower member, 8, and is provided at one end with an enlarged depending portion, in the under face of which is formed the roll-depression 25 for the front roll, 12, to work in, and the depression is in communica-
100 tion by means of a perforation, 26, with the wick-chamber 16, formed upon the upper face

of the member, for the ordinary wick and lubricant. The rear end of the upper member is slender, and is constructed with the convex bearing 17, which rocks and slides upon the ears 5 18, formed one to each side of the lower member. This convex bearing 17 and the ears therefor form no part of my present invention, the same being covered by Letters Patent No. 354,400, granted to me.

10 The two parts of the saddle are perfectly free, being disconnected, and are in nowise locked to each other, so that either of the parts or members may be readily removed from the rolls without having to remove the other. 15 Moreover, the members are each perfectly free to turn on their lengths, when required, through the rocking or uneven motion of any of the rolls which the members rest upon.

Across the upper face of the front end of the 20 upper member, 9, is formed a notch, 19, in which an edge of the eye 20, formed in the upper end of the weight link or stirrup 21, rides. The link 21 is placed over the member by turning it to one side, as shown in Fig. 4, 25 by means of the eye 20, and can be freely moved relatively to the saddle. The other end of the link may be connected to any of the adjustable weight mechanisms ordinarily employed with this class of devices.

30 In order to prevent the weight-link 21 from being dislodged from its proper operative position when the saddle members are adjusted, I have provided the stops 22, which are located in pairs to each side of the upper member, 9, and fore and aft of the notch 19. By 35 virtue of this construction the weight-link 21 can have but a limited throw on the member, so that when the members are relatively adjusted all liability of the link sliding out of place along the member is avoided, and, on 40 the contrary, the link is compelled to remain within the bounds of the stops. These stops 22, I have shown with their inner faces slightly inclined to the line of length of the upper members, so that the tendency, especially of the

front stops, is to hold the link 21 inclined in order to clear the bottom rolls (not shown) adjacent thereto, since the top and bottom roll of each pair in a set are placed with their axes, in an inclined plane. The form of stop I show 50 is integral with the saddle. However, any character of stop may be used to accomplish the same object.

I provide a very convenient way of feeding the necessary lubricant to the wick-cavity of 55 the lower member, 8, for the wick to supply the rolls with by means of the oil-reservoir 23, formed in the upper face of member 9, near the rear end, and which is constructed with the perforation 24, running therefrom to the 60 convex face 17. The lubricating-oil is poured into reservoir 23, and thence it finds its way by means of said perforation 24 to the wick-cavity 14, thereby feeding oil to the roll-depressions 13 to oil the rolls turning therein. 65

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

1. The combination, as hereinbefore set forth, with a weight link or stirrup, of an adjustable top-roll saddle provided with stops for limiting the throw of the link or stirrup on the saddle, substantially as and for the purpose herein 70 described.

2. The combination, as hereinbefore set forth, with a weight link or stirrup, of an adjustable 75 top-roll saddle, comprising a shiftable lower member, and an upper member provided with stops for limiting the movement of the link or stirrup on the said member, substantially as and for the purpose herein described. 80

3. The combination, as hereinbefore set forth, with the weight link or stirrup 21, of a top-roll saddle provided with the stops 22 for limiting the throw of the link or stirrup upon the saddle, substantially as and for the purpose herein 85 described.

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Witnesses:

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