No. 643,530. Patented Feb. 13, 1900.

L. W. PENNEY.

ROLL CLEARER FOR TEXTILE MACHINERY.

(Application filed May 4, 1899.)

(No Model.) 2 Sheets—Sheet 1.

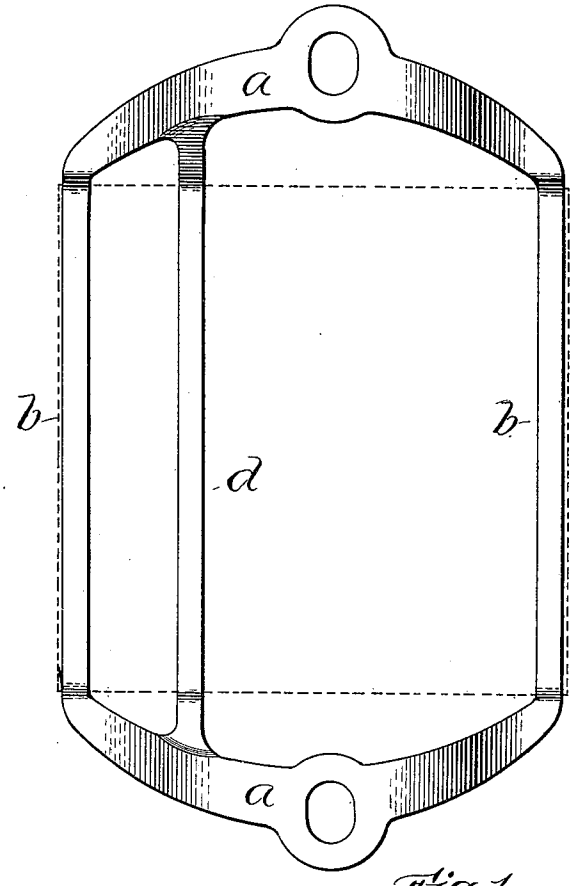
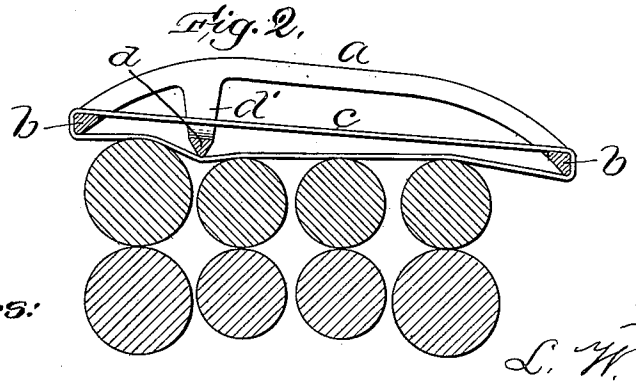


Fig. 1.

Fig. 2.



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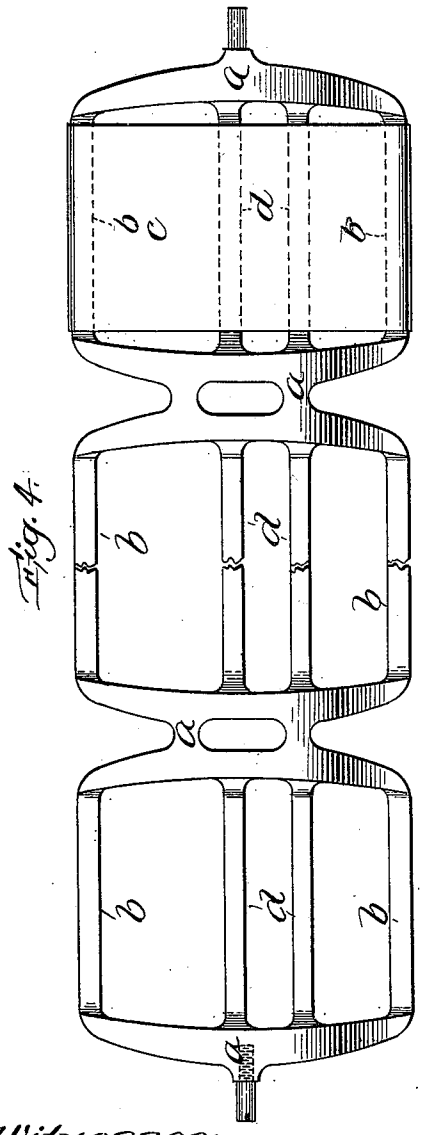


Fig. 4.

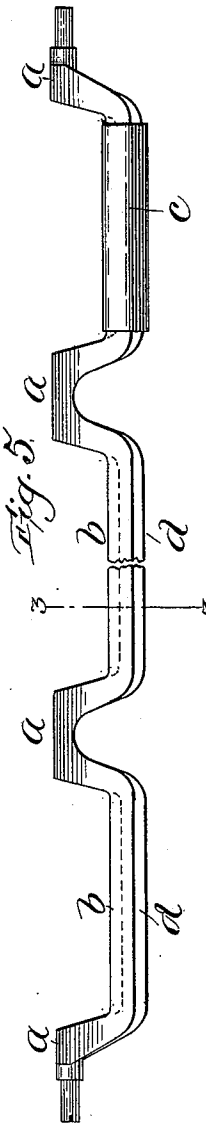


Fig. 5.

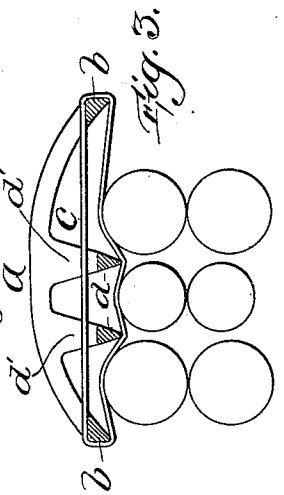


Fig. 5.

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UNITED STATES PATENT OFFICE.

LOREN W. PENNEY, OF NEWTON, MASSACHUSETTS, ASSIGNOR TO THE SACO & PETTEE MACHINE SHOPS, OF SAME PLACE.

ROLL-CLEARER FOR TEXTILE MACHINERY.

SPECIFICATION forming part of Letters Patent No. 643,530, dated February 13, 1900.

Application filed May 4, 1899. Serial No. 715,536. (No model.)

To all whom it may concern:

Be it known that I, LOREN W. PENNEY, of Newton, in the county of Middlesex and State of Massachusetts, have invented certain new and useful Improvements in Roll-Clearers for Textile-Machines, of which the following is a description sufficiently full, clear, and exact to enable those skilled in the art to which it appertains or with which it is most nearly connected to make and use the same.

This invention has relation to roller-clearers for drawing-frames and similar textile-treating machines, and is an improvement upon the roller-clearer described and shown in Letters Patent of the United States No. 617,904, granted to me January 17, 1899. The clearer-frame shown and described in the said patent comprises two side bars, about which the clearer band or web is passed, and the bars being brought down on opposite sides of a set of rolls the clearer-web is made to bear on the surfaces of the top rolls and perform the function of freeing the rolls from fibers and other harmful substances. This construction is efficient when the rolls are all of the same diameter; but when they are of varying diameters, so that their highest surfaces are not in the same plane, the web or band fails to reach the surface of the smaller intermediate rolls, and so is rendered ineffective in clearing them.

It is one object of this improvement to provide the frame with means whereby the clearer band or web may be brought into contact with the surfaces of all the rolls however they may vary in diameter.

It is also the object of the invention to adapt my improvements to ready and convenient use upon successive deliveries or sections of drawing-rolls.

To these ends my invention consists of the improvements which I will now proceed to fully and particularly set forth.

Reference is to be had to the annexed drawings, and to the letters marked thereon, forming a part of this specification, the same letters designating the same parts or features, as the case may be, wherever they occur.

Of the drawings, Figure 1 is a plan view of my improved top-roll-clearer frame. Fig. 2 2 is a transverse sectional view of the same, showing a set of rolls in section. Fig. 3 is a modified form of the invention as it is represented in Fig. 2. Fig. 4 is a plan view of the invention of the form shown in Fig. 3 and representing it as constructed for use upon several successive deliveries or sections of rolls. Fig. 5 is an edge view of the invention depicted in Fig. 4.

In the drawings, *a* designates the ends of the frame, from which the side bars *b* extend in parallel lines and around which the clearer band or web *c* is passed, said end bars being offset from the side bars. The frame thus composed is supported so as to bring the clearer-web to bear upon the surfaces of the rotating top rolls. Inasmuch as the upper surfaces of a set of rolls are not always on the same plane or line, I provide the frame with one or more bars *d*, intermediate of the side bars *b* and extending parallel therewith, the said intermediate bars having their lower surfaces arranged on a lower or different line or plane from the side bars, so as to depress the web *c* on the lower rolls, as is shown in Figs. 2 and 3. These intermediate bars extend between arms *d'*, which spring from the under sides of the end bars *a* at points intermediate the extremities of the latter, said arms extending substantially at right angles to the end bars with their inner faces in much the same plane as the inner faces or edges of the bars, so that the provision of the said bars does not necessitate widening of the holder, while at the same time full space is preserved from end to end throughout the holder for the upper stretch of the clearer-web.

When the rolls are constructed and arranged as shown in Fig. 2, a single intermediate bar will suffice; but when they are of the form and arrangement shown in Fig. 3 two intermediate bars are necessary. These two illustrations will suffice to show how the intermediate bars may be constructed and how many may be necessary to meet particular cases.

In Figs. 4 and 5 I have shown a way of adapting my improvements to several successive deliveries or sections of rolls by integrally connecting the adjacent ends of the frames and supporting the whole at the extreme ends of a connected series. In this

latter case it will be noted that several frames of the character hereinbefore described are joined into one extending across the entire head of the machine, the web-carrying bars at each delivery being offset or depressed from the ends in the same manner as a single frame, so as to press the roll-clearing web down upon the bosses of the top rolls at each delivery, while the ends or portions of the frame supporting the ends of the bars are raised to a higher plane, bridging over the roller bearings or stands between the roller-bosses and machine-deliveries.

Having thus explained the nature of the invention and described a way of constructing and using the same, though without attempting to set forth all of the forms in which it may be made or all of the modes of its use, it is declared that what is claimed is—

1. As a new article of manufacture, a roll-clearer frame comprising parallel side bars, connecting and supporting end bars offset from the side bars, arms springing from the under sides of the end bars intermediate the ends thereof, and one or more bars extending between said arms parallel with the side bars in a plane beyond that of the latter.

2. As a new article of manufacture, a roll-clearer holder composed of a frame for each delivery or set of rolls, each frame comprising a pair of parallel side bars and connecting end bars offset therefrom; and integral heads or necks connecting adjacent end bars of different frames, substantially as and for the purpose described.

3. As a new article of manufacture, a roll-clearer holder composed of a frame for each delivery or set of rolls, each frame comprising a pair of parallel side bars, connecting end bars offset therefrom, and one or more intermediate bars parallel with the side bars and offset from the end bars into a plane beyond that of the side bars; and integral heads or necks connecting adjacent end bars of different frames, substantially as and for the purpose described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 14th day of March, A. D. 1899.

LOREN W. PENNEY.

Witnesses:
E. W. SABIN,
E. A. THOMPSON.