

Dec. 10, 1940.

C. CALLAS

2,224,778

TOP CLEARER

Filed Feb. 16, 1939

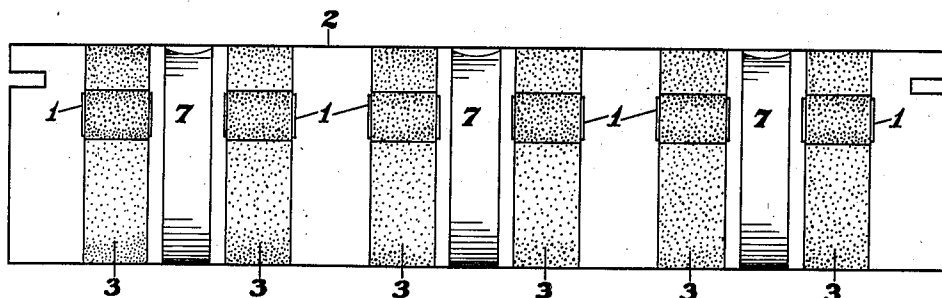


Fig. 1

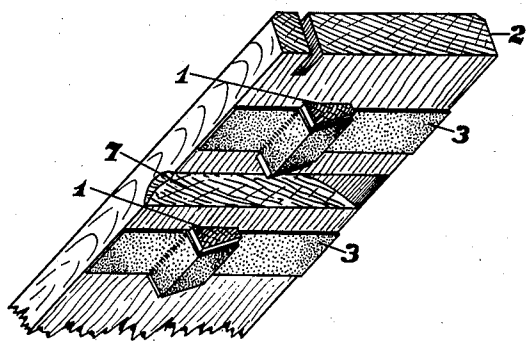


Fig. 2

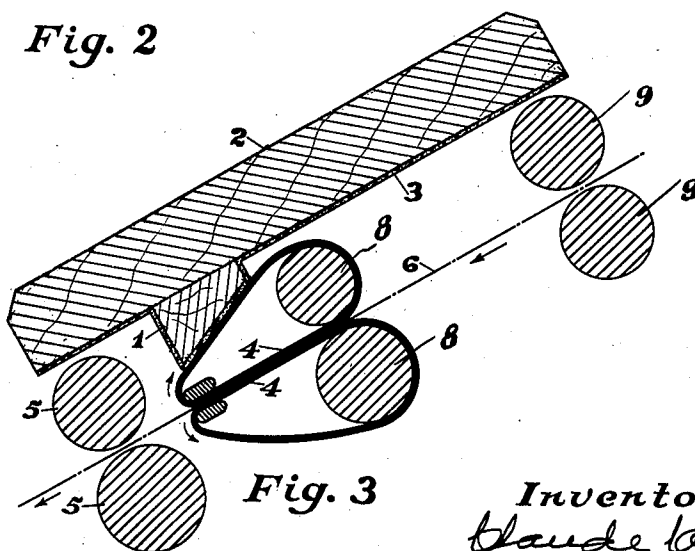


Fig. 3

Inventor:-
Claude Ballou

UNITED STATES PATENT OFFICE

2,224,778

TOP CLEARER

Claude Callas, Ware Shoals, S. C.

Application February 16, 1939, Serial No. 256,805

1 Claim. (Cl. 19—139)

This invention relates to an improved top clearer for use with drawing and spinning frames used for drawing and twisting roving or yarn and is particularly adapted for the long draft type of spinning frame employing endless conveying or conducting belts.

It is a primary object of this invention to provide a top clearer of simple construction designed to be mounted on the saddles of a spinning frame and having a plurality of corresponding depending portions each adapted to engage an upper conducting belt to prevent the roving from lapping the belt to thereby provide a better and more uniform grade of yarn as well as lessening the tendency to break down the ends.

More particularly, it is an aim of this invention to provide a board having a plurality of spaced depending backing portions having bevelled surfaces over which strips of fabric are disposed, the angle of said strips corresponding to the angle of the upper portion of the upper conducting belts so that said flannel covered bevelled portions are each disposed to rest flush against a portion of a conducting belt for clearing the roving and lint therefrom.

Other objects and advantages of the invention will hereinafter become more fully apparent from the following description of the drawing, which illustrates a preferred embodiment thereof, and wherein:

Figure 1 is a bottom plan view of the top clearer,

Figure 2 is a fragmentary perspective view of the same, and

Figure 3 is a transverse vertical sectional view of the top clearer showing it disposed with one of its clearer portions in engagement with a top conducting belt of a long draft spinning frame.

Referring more particularly to the drawing, wherein like reference characters designate like or corresponding parts throughout the different views, the top clearer, as best illustrated in Figure 1, is particularly adapted for use with long draft spinning frames of the type illustrated in U. S. Letters Patent No. 2,051,793, granted August 18, 1936, to Fernando Casablanco, and entitled "Cleaning apparatus for high draft mechanisms with endless belts."

In Figure 1, a board designated 2 is provided with a plurality of projections or blocks 1 which may be formed integral with the board 2 or which may be suitably secured thereto in any desired manner. Blocks or projections 1 are formed integral with or secured to the under side of the board 2 to depend therefrom when the clearer is

disposed in an operable position, as illustrated in Figure 3, and as best seen in Figure 1, the blocks 1 are disposed longitudinally of the board 2 and in spaced apart relationship relatively to each other, for a purpose which will hereinafter be described. The outer or under surfaces of the blocks 1 are bevelled transversely of the board 2 so that these surfaces are disposed at an oblique angle to the plane of the board. A plurality of strips of flannel are secured across the under side of the board 2 preferably by means of an adhesive coating, not shown. Each strip of flannel 3 extends over a block 1 so that the blocks 1 form backing elements for portions of the strips 3 and each strip 3 has an obliquely disposed portion secured across the oblique face of a block 1.

In Figure 3, a pair of delivery or drawing rollers 5, and a pair of endless conducting belts 4 driven by the rollers 8 and a pair of feed rollers 9, are shown, which constitute a part of a conventional long draft spinning frame and which form one set of drawing and twisting means for roving 6, any number of which sets may be mounted in a single spinning frame with each of said sets disposed transversely of the frame so that the roving 6, which moves in the direction as indicated by the arrows in Figure 3, moves transversely of the spinning frame not shown. A plurality of saddles, not shown, form a part of the spinning frame and are suitably disposed to bear against the upper rollers 5, 8 and 9 for pressing them downwardly toward the corresponding rollers 5, 8 and 9, respectively, so that the pairs of rollers will be positioned relatively to each other to frictionally engage the roving 6 for drawing it transversely therethrough.

Board 2 on its under side is provided with a plurality of spaced transversely disposed arcuately shaped grooves 7 which are adapted to engage the saddles for supporting the board 2 above the spinning frame for positioning the blocks 1 between the saddles so that they may depend downwardly to engage the upper inclined portions of the upper endless conducting belts 4, as seen in Figure 3.

The roving 6 is fed as indicated by the arrows so that it passes through the feed rollers 9 after which it is engaged and carried between the belts 4, which are turning in the direction as indicated by the two arrows, adjacent the forward ends of the belts in Figure 3, and then outwardly between the delivery or drawing rollers 5. As the roving 6 passes through the belts 4 loose strands of the roving and particles of lint therefrom will adhere to the upper belt 4 and would ordinarily be car-

ried on around the belt and unless removed would tend to block the belt and adhere to other portions of the roving. The board 2 when disposed, as illustrated in Figure 3, has each of its blocks 1 disposed to engage flush against the inclined upper portion of a belt 4 and as its bevelled face is covered by a portion of a fabric strip 3, the upper belts 4 are wiped by the flannel as they move upwardly so that the lint and loose roving carried on the periphery of the belt is removed.

Obviously, the number of blocks 1, strips 3 and grooves 7 will vary depending upon the number of drawing and twisting mechanisms that a particular spinning frame is provided with, and the size of the space between these parts will likewise vary depending upon the width of the belt and the space between each set of belts.

Various other modifications and changes are likewise contemplated and may be resorted to, and the right is therefor expressly reserved to make such variations as do not depart from the spirit and scope of the invention as hereinafter defined by the appended claim.

I claim as my invention:

A top clearer for long draft spinning frames provided with saddles for applying pressure to the rollers thereof, comprising a board having a plurality of spaced transversely disposed grooves in its underside each adapted to rest on a saddle of a long draft spinning frame for supporting the board above the spinning frame, said board having a plurality of longitudinally spaced depending projections, said projections being arranged in pairs with each of the grooves disposed between the projections of one of said pairs, the outer surfaces of said projections being bevelled transversely of said board, and strips of flannel secured transversely of the under side of said board and extending over said bevelled surfaces, said flannel covered bevelled surfaces forming clearer elements adapted to bear against the conducting belts of the spinning frame for removing lint and loose roving therefrom.

CLAUDE CALLAS.