Dec. 7, 1943. S. P. OUZTS 2,335,880

SLASHER

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Fig. 1.

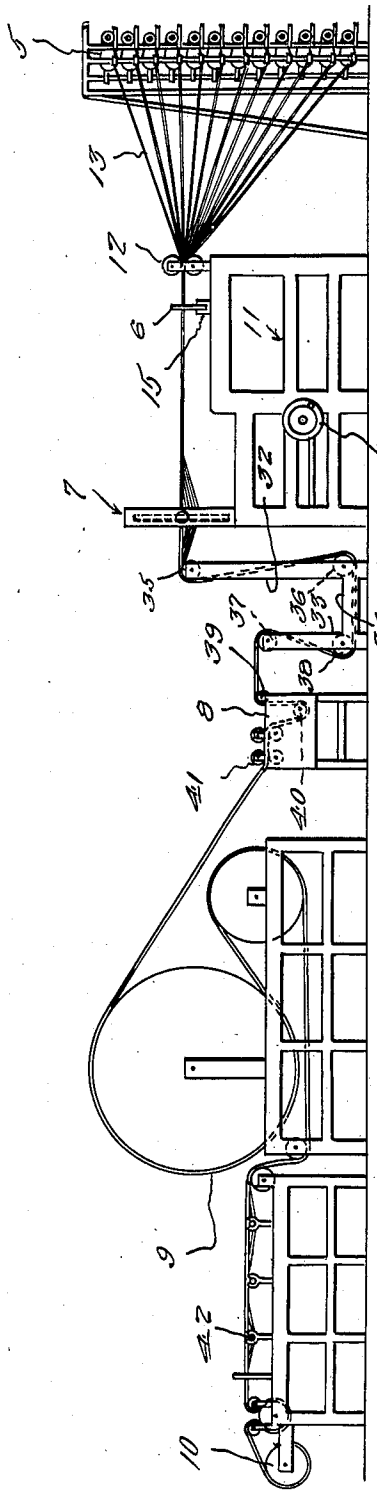
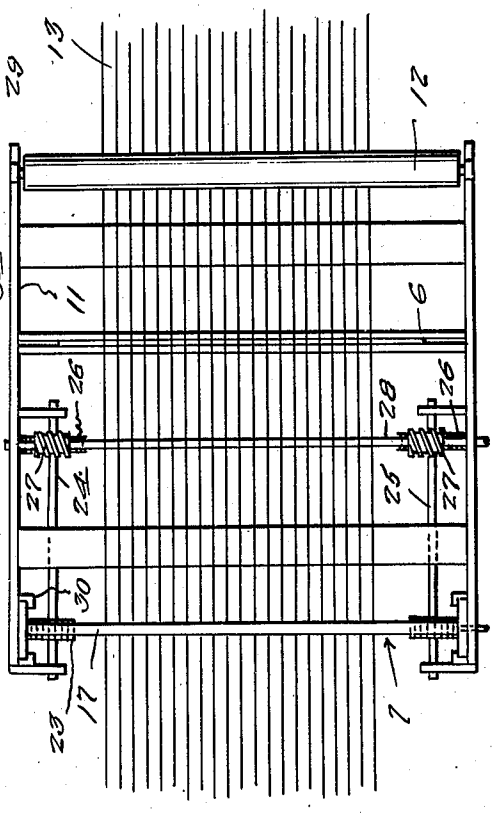


Fig. 2.



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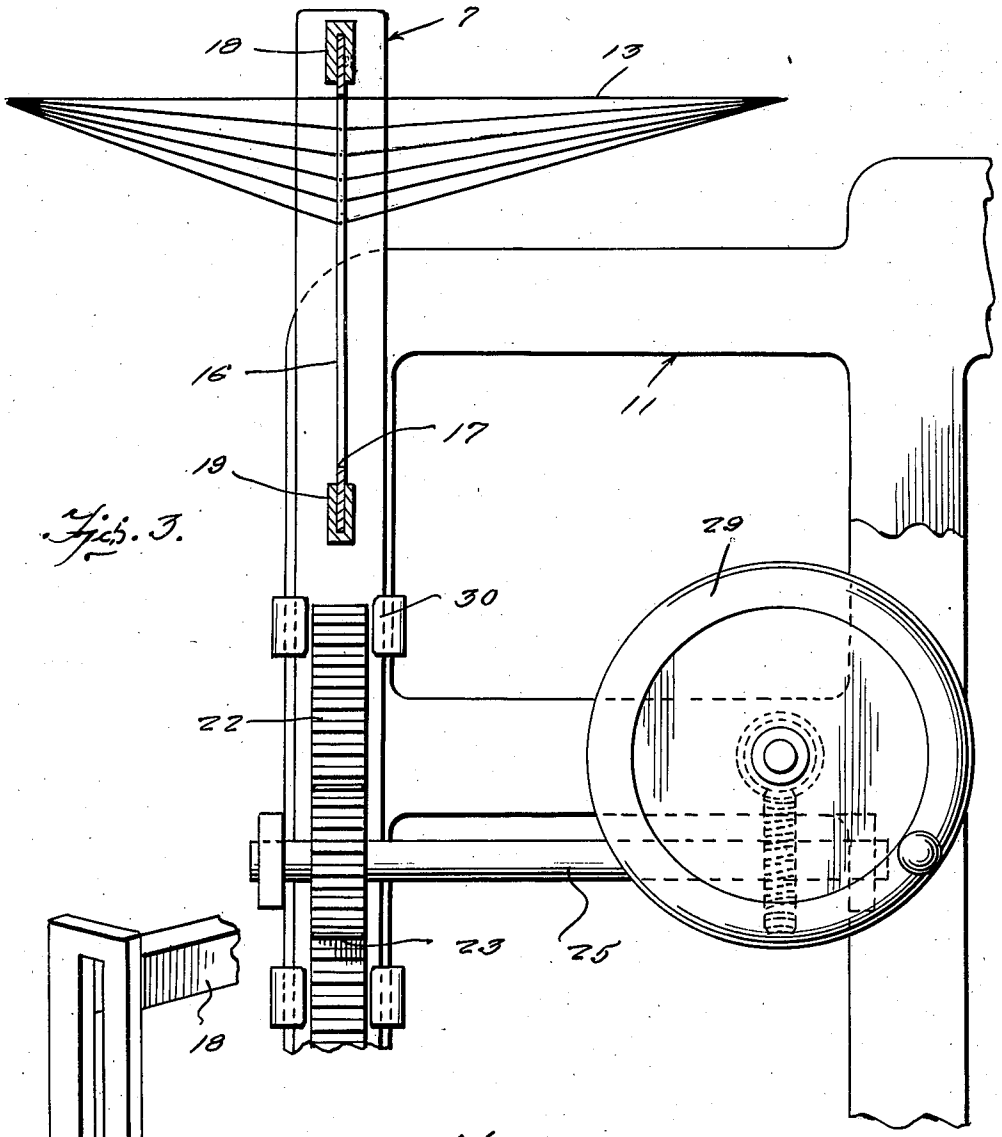


Fig. 3.

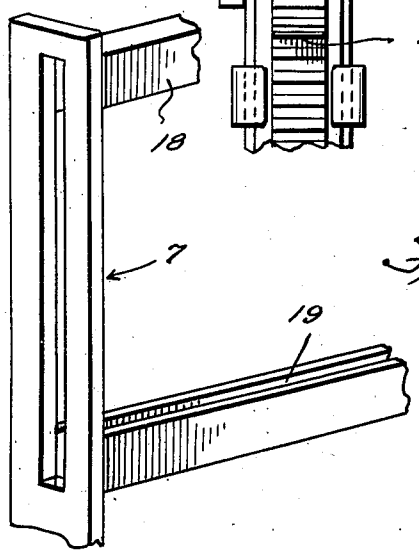


Fig. 4.

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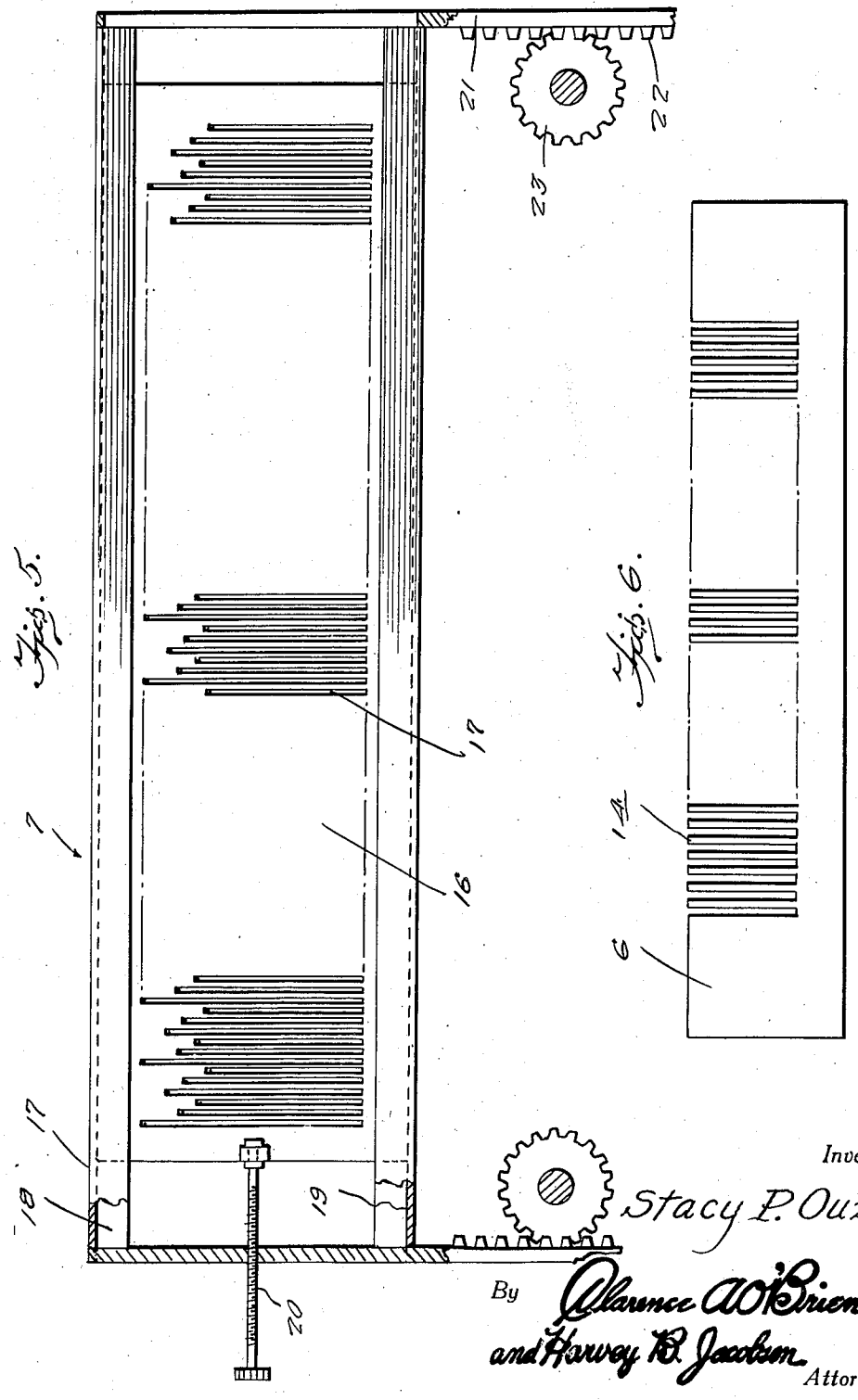
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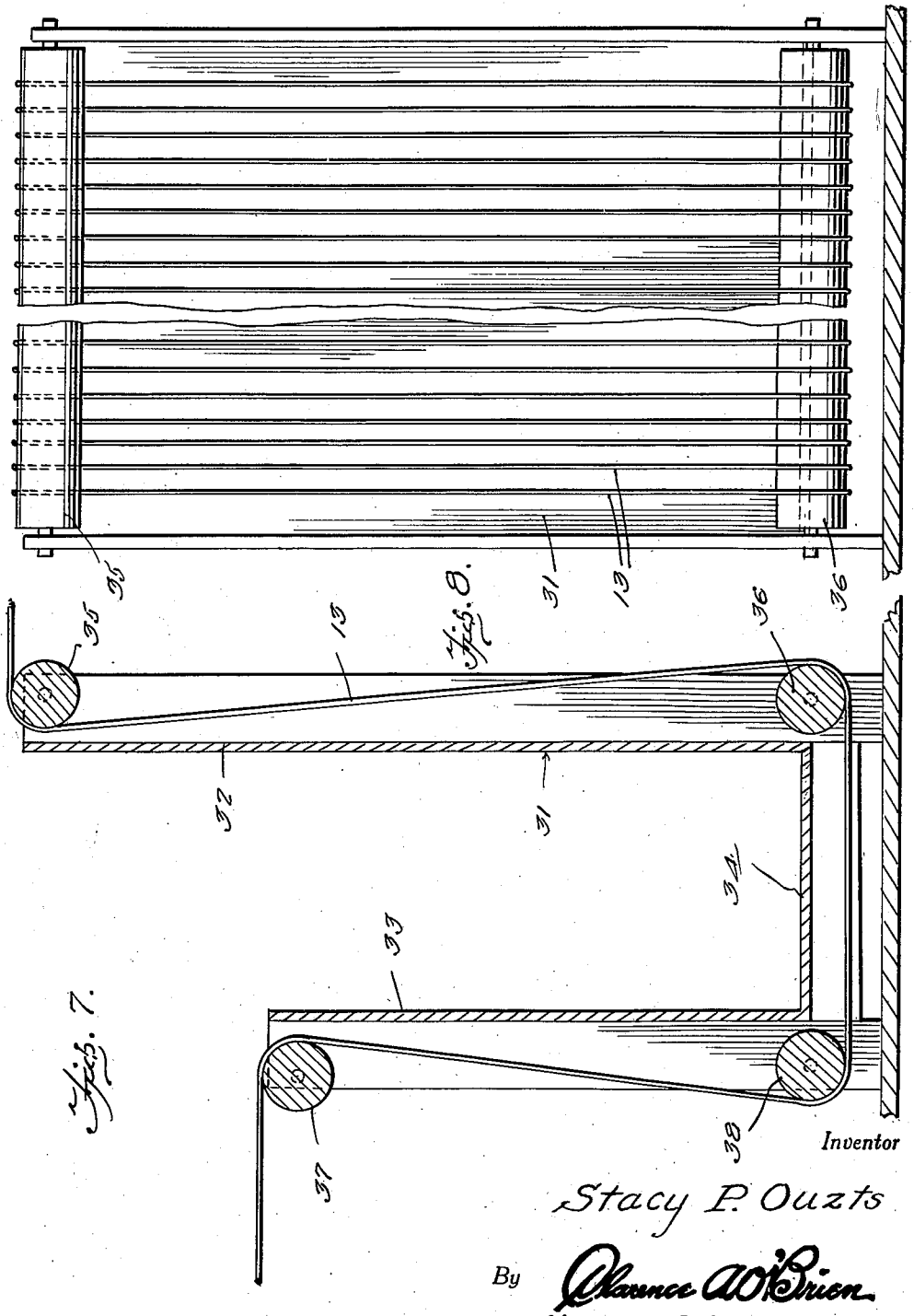


Fig. 8.

Fig. 7.

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SLASHER

Stacy P. Ouzts, Hodges, S. C.

Application April 10, 1942, Serial No. 438,476

2 Claims. (Cl. 28—28)

The present invention relates to now and useful improvements in textile machines and more particularly to the treatment of strands of yarn with a sizing solution before winding on the loom beams.

Heretofore it has been the practice to draw the yarn from the creels onto warper beams, remove the warper beams from the warper winding machine and remount the warper beams on the sizing and drying machine. These various operations consume considerable time and waste and accordingly it is an object of the present invention to provide an apparatus whereby the strands are drawn directly from a battery of creels direct to the solution tank and thence to the loom beam, without the usual intermediate step of first drawing the strands from the creels to a warper beam and then drawing the strands from the warper beam to the solution tank for eventual winding on the loom beam.

A further object is to provide an adjustable slasher lease reed to separate the strands so as to take lease strings before entering the sizing solution and to also provide a means for guiding the strands under a walk-way disposed transversely of the machine in order that an attendant may work from a position directly in front of the lease reed for feeding the strands to the reed and for repairing broken strands when necessary.

A further object is to provide a slasher lease reed of this character of simple and practical construction, which is efficient and reliable in performance, relatively inexpensive to manufacture and otherwise well adapted for the purposes for which the same is intended.

Other objects and advantages reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming part hereof, wherein like numerals refer to like parts throughout and in which—

Figure 1 is a side elevational view of the machine.

Figure 2 is a fragmentary top plan view showing the position of the gathering rolls and comb with respect to the slasher lease reed and the vertical adjusting means for each side of the reed.

Figure 3 is a fragmentary enlarged vertical sectional view through the adjustable frame for the reed.

Figure 4 is a fragmentary end elevational view of one end of the reed frame.

Figure 5 is a front elevational view of the reed and reed frame with parts broken away and shown in section.

Figure 6 is a front elevational view of the gathering comb.

Figure 7 is a vertical sectional view through the walk-way extending transversely of the machine, and

Figure 8 is a transverse sectional view thereof.

Referring now to the drawings in detail, Figure 1 represents the side elevational view of an assembled yarn sizing machine which includes the magazine creel 5, the rear gathering comb 6, the slasher lease reed frame 7, the sizing tank 8, and drying apparatus designated generally at 9, with the loom beam 10 mounted on the end thereof in which the yarn is wound after sizing.

The comb 6 and lease reed 7 are mounted on a frame structure, designated generally at 11, on the rear upper portion of which is mounted a pair of vertically spaced guide rollers 12 for gathering the strands of yarn 13 from the battery of creels for traveling in a horizontal plane through the teeth 14 of the rear comb 6, the comb being supported in an upright position on a base 15 on the upper edge of the frame 11. The teeth of the comb separate the yarn transversely.

From the comb 6 the yarn travels to the slasher lease reed, designated generally at 7, which includes a plate member 16 having a plurality of vertically extending slots 17 formed therein, the slots being arranged in groups of varying lengths, as shown to advantage in Figure 5 of the drawings, the upper ends of the slots of the respective groups terminating in staggered relation to space the strands 13 vertically when lease reed is lowered to insert lease strings as the strands pass through the reed.

The plate 16 is slidably mounted in a frame 17 extending transversely of the machine, the frame having upper and lower channel guides 18 and 19 slidably receiving the upper and lower edges of the reed plate, one end of the plate having an adjusting screw 20 attached thereto and threaded through an adjacent leg 21 of the frame for adjusting the plate transversely.

Each end of the frame 17 is secured to a leg 21 by screws or the like (not shown), the legs projecting downwardly from the frame and are provided with teeth 22 formed on the inner faces thereof engaging pinions 23 secured on shafts 24 and 25 journaled at opposite sides of the frame 11. Each of the shafts 24 and 25 is provided with worm wheels 26 operatively engaged by worms 27 on a transversely extending shaft 28 projecting from one side of the frame and having

an operating wheel 29 on the outer end thereof. The legs or rack bars 21 are slidably mounted in guides 30 at the respective opposite sides of the frame 11.

Immediately adjacent the frame 11 and forwardly of the reed 7 is a transversely extending walk-way indicated generally at 31, which comprises a transversely extending rear shield 32 and a transversely extending front shield 33 extending vertically in spaced relation to each other and connected at their lower ends by a bridge portion 34.

A roller 35 is journaled at the upper end of the rear shield 32, while a roller 36 is journaled at the bottom portion thereof, and the front shield 33 is likewise provided with an upper roller 37 and lower roller 38. The yarn 13 travels from the reed 7 over the upper roller 35, under the roller 36, and under the bridge portion 34 to the lower roller 38 and then upwardly over the upper roller 37 and then over rollers 39, in and around a submerged roller 40 in the sizing vat 8. From the roller 40, the yarn travels between squeezing rollers 41 to the drying machine 9.

From the dryer 9, the yarn travels to the separator rods 42 of conventional construction before being wound on the loom beam 10.

From the foregoing it will be apparent the strands 13 are effectively gathered from the battery of creels by the rollers 12 and maintained in a transversely spaced position by the comb 6 before reaching the slasher lease reed 7, and the walk-way 31 provides convenient means for the attendant to initially draw the strands through the reed into position for guiding through the sizing solution.

It is believed the details of construction and manner of use of the device will be readily understood from the foregoing without further detailed explanation.

Having thus described the invention what I claim is:

1. A textile machine comprising in combination, a creel magazine, a sizing apparatus for treating strands of yarn from the creels and winding the same on a loom beam, means for gathering the strands of yarn for traveling in a horizontal transversely separated position, means between the gathering means and the sizing apparatus for separating the strands vertically, a walk-way extending transversely of the machine adjacent the last-named means, and means for guiding the strands from said last-named means under the walk-way to the sizing apparatus.

2. A textile machine comprising in combination, a creel magazine, a sizing apparatus for treating strands of yarn from the creels and winding the same on a loom beam, means for gathering the strands of yarn for traveling in a horizontal transversely separated position, a slasher lease reed between the gathering means and the sizing apparatus for separating the strands vertically, a walk-way extending transversely of the machine adjacent the reed, and means for guiding the strands from the reed under the walk-way to the sizing apparatus.

STACY P. OUZTS.