

(No Model.)

L. BINNS.

BELTING.

No. 383,208.

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Fig. 1.

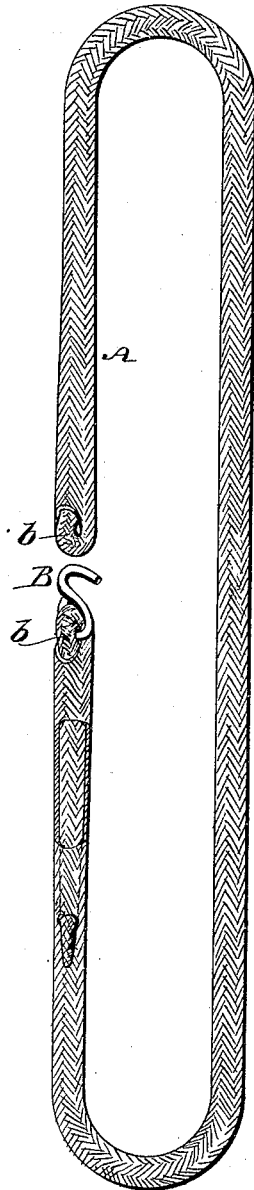


Fig. 2.

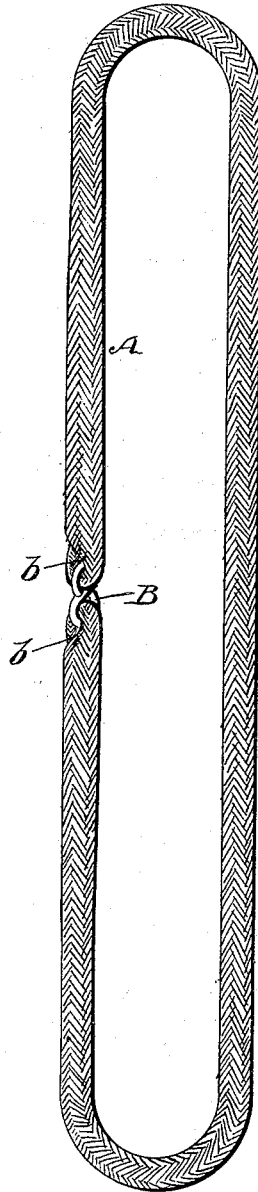
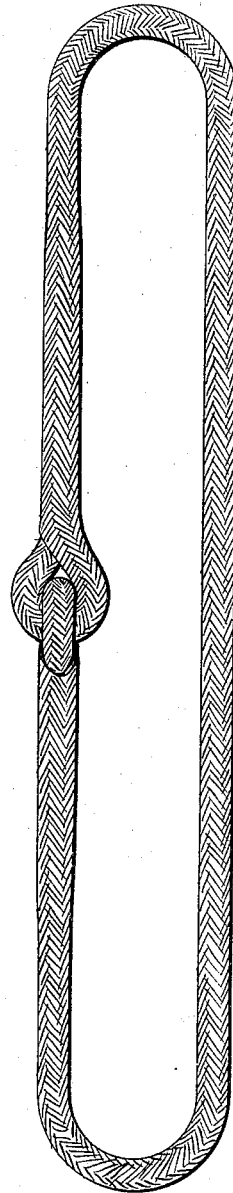


Fig. 3.



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SPECIFICATION forming part of Letters Patent No. 383,208, dated May 22, 1888.

Application filed February 16, 1888. Serial No. 264,177. (No model.)

To all whom it may concern:

Be it known that I, LEEDHAM BINNS, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and useful Improvement in Plaited or Braided Bands for Spinning and Twisting Machines and for other Purposes, of which the following is a full, clear, and exact description.

This invention relates to tubular plaited or braided bands constructed with loops at their joining ends; and it consists in a novel construction of such bands for use in connection with an independent coupling means at the looped ends of each band to make the band an endless one, substantially as hereinafter described, and pointed out in the claims. The improved band is more especially designed to be used for driving the spindles of spinning and twisting frames, and will herein be described accordingly.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar letters of reference indicate corresponding parts in all the figures.

Figure 1 represents a longitudinal view of the improved band before its looped ends are joined together and with a uniting means applied to the one end, a portion of the band being in section or broken away to illustrate the construction of the loop in either end of the band. Fig. 2 is a longitudinal view of the same band after its ends have been joined together; and Fig. 3 is a longitudinal view of a former style of plaited or braided tubular loop-connected endless band, upon which this invention is an improvement.

Plaited or braided tubular endless bands formed with loops at their ends and used for driving the spindles of spinning and twisting frames heretofore have been made substantially as shown in Fig. 3 of the drawings, by interlocking the loops at the ends of the band into each other during the process of manufacturing such endless loop-band. This necessitates the loops being made of an objectionable size, and so that the looped portions protrude transversely or laterally considerably beyond the main portion of the band, thereby making the band at its joined ends much or several times thicker than the rest of the band. Such thick and clumsy junction of the ends of

the band causes it to jump or batter the spindle at each revolution as said joint passes over or round the spindle-whirl, thereby producing extra wear and tear on the spindles and bearings and requiring increased driving-power and more oil and lubrication as well as driving the spindles more or less irregularly. Another objection is that an endless band of the character just described and thus directly joined by the loops is very difficult to apply to a spindle, inasmuch as the spindles of the frame and their driving-drum have to be uncoupled in order to put the bands on, and if the loops are connected when putting the bands onto the spindles, then it is very difficult to lace the second looped end into the body of the band, as the band must be at full stretch when complete, in order to drive the spindle.

The improvement which is the subject of this specification is shown in Figs. 1 and 2 of the drawings. In these figures, A indicates the plaited or braided tubular band, and *b b* the loops at its joining ends. These loops are first formed in the plaited or braided band at each end thereof, and then an independent fastening or hook, B, of any suitable kind which will not objectionably protrude laterally beyond the main portion of the band, connected with the one loop *b* of the band, for subsequent connection with the other loop *b* on applying the band to its spindle or to make the band an endless one. Said band may be furnished, however, independently of its connecting-fastening; but it is an important feature of the invention that the looped portions *b b* are of the same exterior size, or thereabout, as the rest of the band, or, in other words, do not objectionably protrude transversely beyond the main portion of the band, and which the independent fastening provides for, but which where the loops directly engage with one another is not the case. Said loops *b b* may be made by sheathing or tucking the terminal portions of the band into or into and through the portions of the body of the band next adjacent to them, as shown in Fig. 1, and as has heretofore been done in other constructions.

These plaited or braided tubular and looped bands can be applied by any person to a spin-

ning or twisting machine with perfect ease by simply hooking or connecting by the independent fastening the two looped ends of the band together at the same time. The looped
5 ends of the band thus independently united are as strong as the main body of the band, thereby, when so united, producing a plaited or braided tubular hook connected and looped
10 endless band with little or no lateral projection at the joining or hooked part. Such a band will give a steadier and more even driving of the spindles, and will economize both oil and power, and the result will be less wear and tear.

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

1. The tubular band formed at its ends with disconnected loops of the same thickness at their bends as the body of the band, substantially as set forth. 20

2. The tubular band bent back upon itself and its ends passed within the band to form disconnected loops, substantially as set forth.

3. As an improved article of manufacture, 25 the tubular band A, having its ends looped and passed inwardly into the tubular body and an independent fastening to connect said loops, substantially as set forth.

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Witnesses:

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