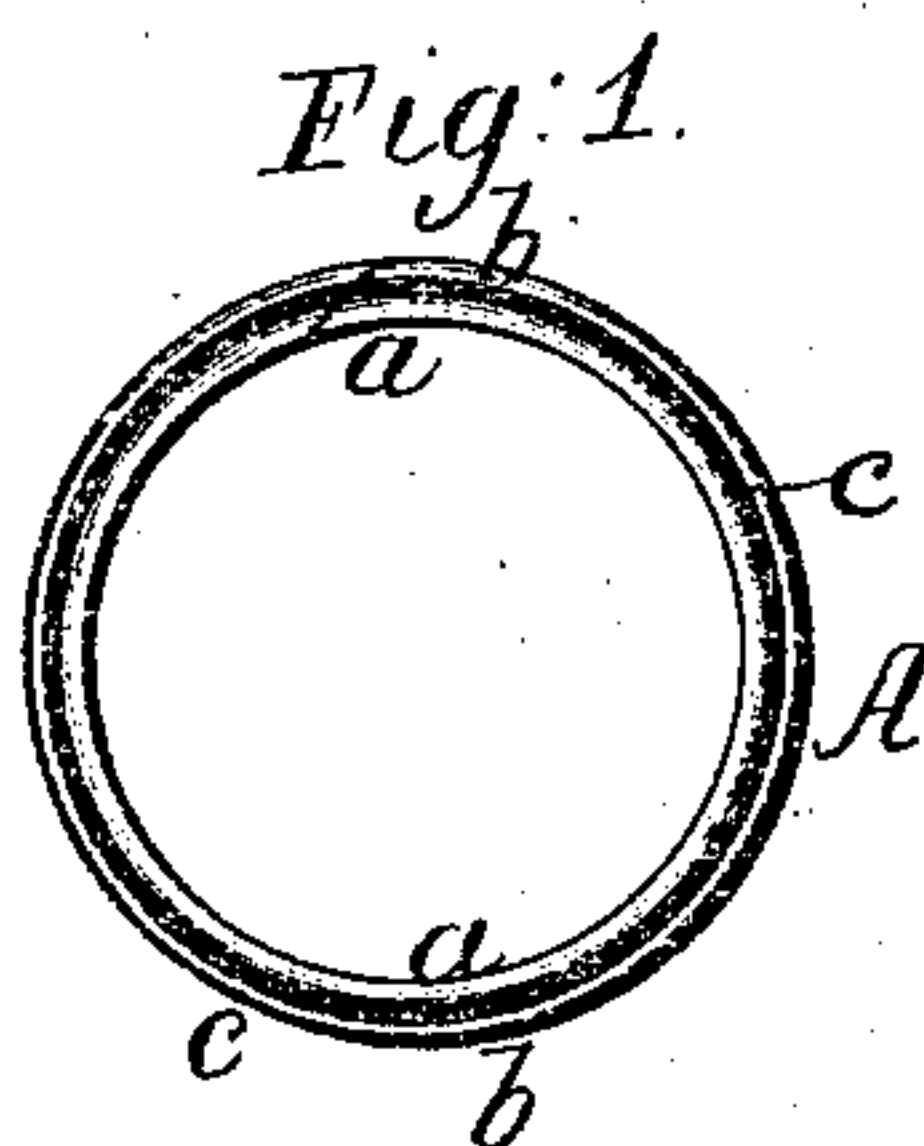


E. L. PERRY.
COT OR COVERING FOR ROLLS FOR SPINNING, &c.
No. 61,452. Patented Jan. 22, 1867.



Witnesses

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EDWARD L. PERRY, OF NEW YORK, N. Y.

Letters Patent No. 61,452, dated January 22, 1867.

IMPROVEMENT IN COT OR COVERING FOR ROLLS FOR SPINNING, &c.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, E. L. PERRY, of the city, county, and State of New York, have invented a new and improved "Covering or Cot for Rolls of Spinning, Drawing, Doubling, and other Machines;" and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable those skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification.

In the covering of rolls for spinning and other machines used in the manufacture of cotton and woollen goods or fabrics more particularly, it has been generally the practice and custom to first secure to and about the rolls, by means of glue, cement, or other suitable adhesive material, a coating or layer of felt, when over such felt covering a cot or covering made of leather was then tightly drawn. But with the rolls covered or "cotted," as has been above stated, it has been found by experience and use that such cot or covering soon became "fluted" or corrugated, in consequence of the pressure of the fluted roller that is arranged to run in contact with it, which, acting through the leather upon the felt below or under the same, gradually so ground and wore such felt away, as to finally loosen the leather to such a degree that it would slip around upon the roll, which of course rendered it unfit for further use, requiring it to be removed and a new or fresh one to be applied. To overcome the disadvantages above stated, resulting from the use of a felt and leather covering, combined upon and applied to the rolls as above stated, various attempts have been heretofore made, but only with partial success; the one, however, which has seemed to produce the best results, and to meet with the most success, being that embraced in a Letters Patent granted to Dan Read on the 6th day of June, A. D. 1865. In this mode, in lieu of using felt next to the roll, India rubber or gutta percha was employed, by applying it directly to the same, where it was vulcanized and afterwards turned off true, when over it the leather cot or covering was drawn; the disadvantages of this mode, found by practice and use, resulting mainly from the fact that, as the rubber was vulcanized on the roll, it consequently caused much inconvenience and annoyance to cotton manufacturers; furthermore, as the rubber was next to the roll, the oil employed as the lubricating medium for the bearings of the rolls soon decomposed or softened the rubber or gutta percha where exposed at the ends of the rolls to such an extent as to render the surface of the roll cot so uneven from end to end as to be inefficient in operation. By the present invention, all the objections and defects which have been herein above enumerated are successfully overcome and obviated. The invention consists in forming a "cot" or covering for the rolls of spinning and other machines, of three or more separate layers or thicknesses of material, secured or united together by means of cement, glue, or other suitable adhesive material, or in any other proper manner, either independent of the roll on which the cot is to be used, or directly upon the same. The outer one of these three layers constituting the cot is composed of leather, which, while it is durable, will present a surface to the yarn or strands passing over the same, sufficiently pliable, flexible, and yielding to allow the fluted roller to "nip," as it were, or hold the strands without danger of cutting or severing them; and the next layer to such outer covering or layer of leather is composed of India rubber, gutta percha, or any of their respective elastic compounds, or any other suitable elastic material, which will form a "backing," as it were, to the leather or outer layer of the roll, possessing sufficient elasticity to enable the leather to resist the action of the fluted roller upon it, while at the same time it will hold the leather to its work with the proper degree of firmness; the layer between such elastic layer or section and the surface or periphery of the roll being composed of leather, to give not only a "body" to the cot or covering for the roll without detracting in the least from its operation, but also to raise the layer of elastic substance, especially if it is composed of India rubber or gutta percha, sufficiently above or away from the roll to obviate all possibility of its becoming decomposed or softened by the action of the oil or other lubricating medium employed for the rolls thereon.

In the accompanying plate of drawings, my improvement in cots or coverings for rolls of spinning, drawing, and other machines, is illustrated—

Figure 1 being a cross-section of my improved covering for rolls made up into the form of a cot.

Figure 2, a section through the several layers of materials constituting the cot, before being made into the form of a cot; and

Figure 3, a similar section to fig. 2, to be hereinafter referred to.

A, in the drawings, represents my improved cot or covering for rolls, which, in the present instance, is

shown as composed of three layers or thicknesses of material, the inner and outer layers, marked *a* and *b* respectively, being made of leather, and the middle or intermediate one, marked *c*, of India rubber, gutta percha, or other suitable elastic material. To produce the cot in the form shown in fig. 1, or ready for being secured upon a roll, the several layers of which it is to be made are first united together by cement, glue, or in any other proper manner, in the order or form described, when, having vulcanized the India rubber to the proper degree, cut the material to the requisite length and width for the roll on which it is to be used, after which its edges are bevelled or shaved down, and then brought together by bending the material up into the form of a tube, and there securing them by cement, glue, or any other suitable adhesive material, as shown in fig. 1 of the drawings, when the cot is ready for use, and for being secured to and upon the roll for which it has been made. In fig. 3, in lieu of rubber being shown as used for the intermediate or centre layer, felt is employed, the same results being secured in either case.

I claim as new, and desire to secure by Letters Patent—

A cot or covering for rolls of spinning or other machines, when made or composed of three or more separate layers or thicknesses joined together, of which the outer layers *a* and *b* consist of leather, and the intermediate layer, *c*, of fibrous or elastic material, substantially as described.

The above specification of my invention signed by me this 16th day of November, 1866.

EDWARD L. PERRY.

Witnesses:

WM. F. McNAMARA,

ALBERT W. BROWN.