

T. & G. S. Goodspeed.
Drawing Roller for Spinning.
Nº 46,896. Patented Mar. 21, 1865.

Fig: 2.

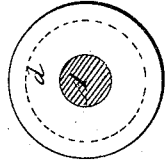
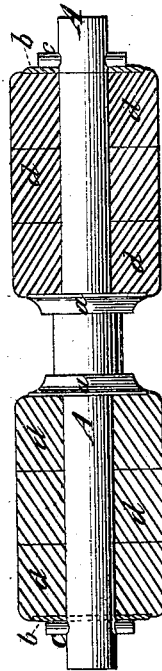


Fig: 1.



Witnesses:

W. C. Cronin
Geo. W. Reed

Inventors:

T. Goodspeed
G. S. Goodspeed
per Munroe & Co
Attorneys

UNITED STATES PATENT OFFICE.

ISAAC GOODSPEED, OF NORWICH, CONNECTICUT, AND GURDON S. GOODSPEED, OF PROVIDENCE, RHODE ISLAND.

IMPROVEMENT IN SPINNING-ROLLERS.

Specification forming part of Letters Patent No. **46,896**, dated March 21, 1865.

To all whom it may concern:

Be it known that we, ISAAC GOODSPEED, of Norwich, in the county of New London and State of Connecticut, and GURDON S. GOODSPEED, of Providence, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Rolls for Drawing, Roving, and Spinning Machinery; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a longitudinal view of a shaft and two rolls. Fig. 2 is a transverse section of the same.

Similar letters of reference indicate corresponding parts in both figures.

It has been long desirable to find some more durable substitute for leather for covering the top rolls of drawing, roving, and spinning machinery, and though many substances have been tried none have heretofore been found suitable in all respects. This invention consists in constructing the surfaces of such rolls with cork, arranged and applied in the manner hereinafter described.

To make a cork-covered roll we first make or obtain a shaft, *A*, of suitable size, turned perfectly true, with suitable journals and with one or more fixed collars, *a a*, according to the number of rolls to be provided thereon, and fitted with a number of washers, *b b*, corresponding with the number of collars, the said washers to be secured at suitable distances from the collars, according to the desired length of the operating-surfaces of the rolls, by means of pins *c c*, inserted into holes drilled transversely through the shaft. We then take rings *d d*, of cork of suitable diameter and thickness, having their interiors of a size to fit tightly to the shaft *A*, and press them onto the shaft *A* and up to the collars *a a*, and afterward put on the washers, which

we press up against the cork with a sufficient degree of pressure to compress the cork to the greatest possible degree, and secure the said washers and the cork by inserting the pins *c c*. When two or more rings of cork are necessary for a roll to obtain the necessary length, the faces are cut perfectly smooth and of such form that their union will be imperceptible. Having thus secured the cork we place the shaft in a turning-lathe and turn the exterior of the cork perfectly smooth and of the requisite diameter.

When more than two rolls are required on one shaft, we substitute for the fixed collars *a a* of the additional rolls, loose collars, which are held in place by pins similar to *c c*, or other suitable stops.

It is of considerable importance to cut and apply the cork that the crevices or flaws which are common in this material will be parallel with the axis of the roll, as by that means we avoid any crevices running in a circumferential direction which would be prejudicial to the use of cork for such purposes.

Instead of pins *c c*, nuts may be used to secure the washers.

We are aware that rolls for other purposes have been constructed or covered with cork arranged as above described. Our invention is restricted to rolls employed for spinning and drawing for cotton-mills.

What we claim as our invention, and desire to secure by Letters Patent, is—

A roll for drawing, roving, or spinning machinery, constructed with a surface of cork applied with its flaws or interstices parallel with the axis, and compressed and turned as hereinbefore described.

ISAAC GOODSPEED,
GURDON S. GOODSPEED.

Witnesses:

CHARLES CROWLEY,
THADDEUS C. GORDON.