(No Model.)

R. Y. KIRKLAND.

COTTON GIN ROLLER.

No. 407,016. Patented July 16, 1889.

Fig. 1.

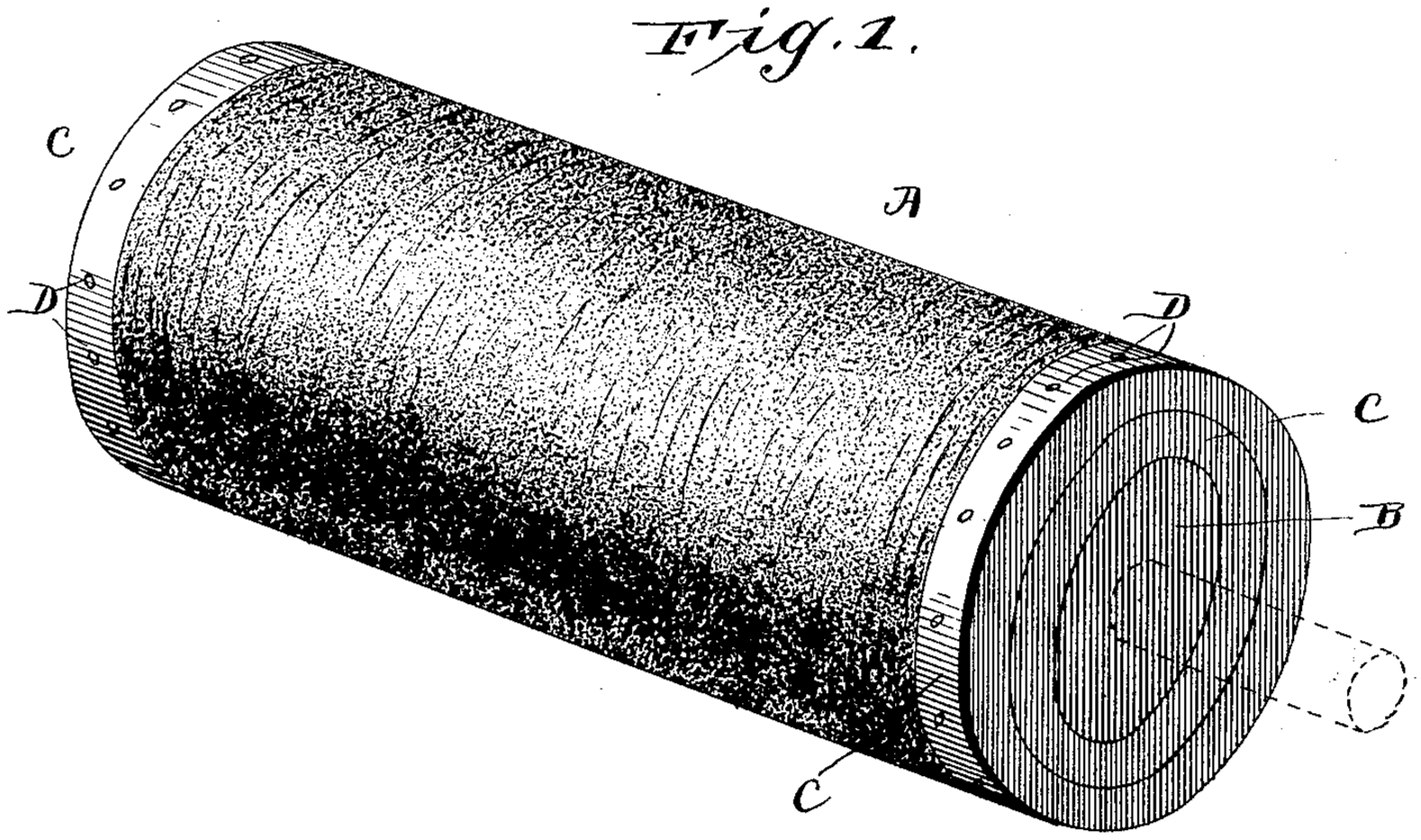
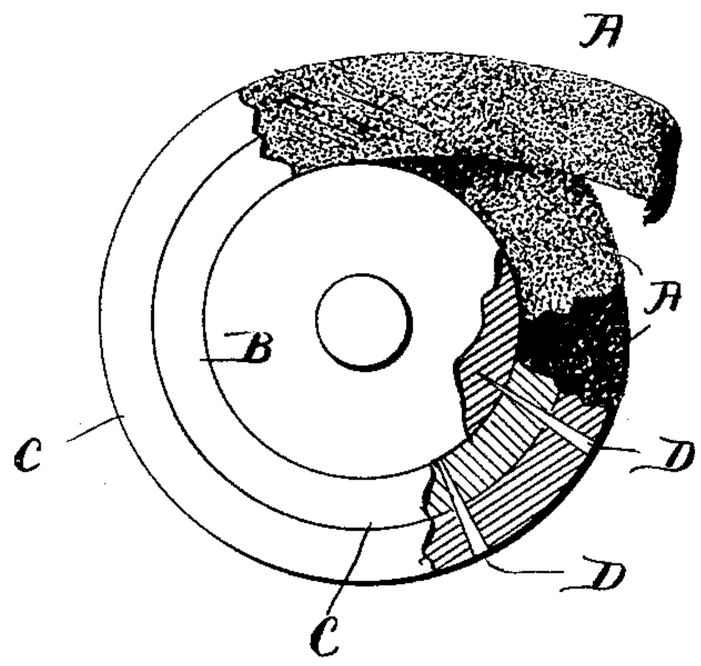


Fig. 2.



Witnesses
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UNITED STATES PATENT OFFICE.

REMER YONG KIRKLAND, OF BENTON, FLORIDA.

COTTON-GIN ROLLER.

SPECIFICATION forming part of Letters Patent No. 407,016, dated July 16, 1889.

Application filed January 8, 1889. Serial No. 295,735. (No model.)

To all whom it may concern:

Be it known that I, REMER YONG KIRKLAND, a citizen of the United States, residing at Benton, in the county of Columbia and State of Florida, have invented a new and useful Improvement in Cotton-Gin Rollers, of which the following is a specification.

My invention relates to an improvement in covers for cotton-gin rollers; and it consists in a cover formed of cotton cloth or other fabric wound and compressed tightly on the roller and secured thereto, as will be more fully set forth hereinafter, and particularly pointed out in the claim.

In the accompanying drawings, Figure 1 is a perspective view of my improved gin-roller, illustrating the manner of applying the cover thereto. Fig. 2 is an end view of the same, partly broken away.

In carrying my invention into effect I employ a strip A, or a number of strips, of cotton cloth or other fabric, which have been cut on the bias or at an angle with relation to the grain of the fabric and are of suitable length and width. On one end of the core or roller B, I secure two or more concentric rings C by means of radial pegs D. The strips of fabric are then wound on the roller, after having covered the surface of the latter with glue and while the glue is melted, the said strips being arranged edgewise on the roller and coiled spirally thereon and compactly compressed during the operation. The glue, when it hardens, secures the fabric so firmly to the roller that it cannot by any possibility be torn therefrom by ordinary usage to which the roller may be subjected by the working of the machine to which it is applied. When the surface of the roller has been covered throughout nearly its entire length, another pair of concentric rings C are secured to the remaining end of the roller by pegs, as before. The extreme ends of the strips of fabric at opposite ends of the roller are glued to the rings C, and thereby the fabric is prevented from uncoiling from the roller when the latter is in use. The density of the cotton coverings thus provided for the roller may be made very great by taking care to thoroughly compress the cotton strip as the latter is wound helically on the roller.

I do not desire to limit myself to the use of cotton as a covering for the gin-roller, as woolen cloth may be substituted therefor.

A gin-roller thus constructed is very cheap, and I have demonstrated by actual use of the same that it is about four times as durable as a gin-roller covered with leather in the manner now in vogue. Moreover, the roller may be used until the cotton covering has been worn down nearly to the surface of the roller, and in the event that one side of the covering should become worn more than the other to such an extent as to destroy the symmetry of the roller and affect its utility and efficiency the said cotton covering may be "trued" and restored to perfect cylindrical form by applying a heated iron thereto and causing it to burn away the cotton projecting beyond the desired radius.

Having thus described my invention, I claim—

A gin-roller comprising a shaft or core, in combination with a strip or strips of fabric cut on the bias, wound edgewise spirally upon the shaft or core and having the raw inner edge secured thereto by glue or cement, and the rings mounted upon the ends of the core bearing against and having the ends of the strips of fabric secured thereto, and pegs for securing said rings to the core, substantially as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

REMER YONG KIRKLAND.

Witnesses:
ROBT. HENRY,
O. K. PAXTON.