

(No Model.)

2 Sheets—Sheet 1.

O. F. GOODWIN.  
ROLLER COTTON GIN.

No. 550,753.

Patented Dec. 3, 1895.

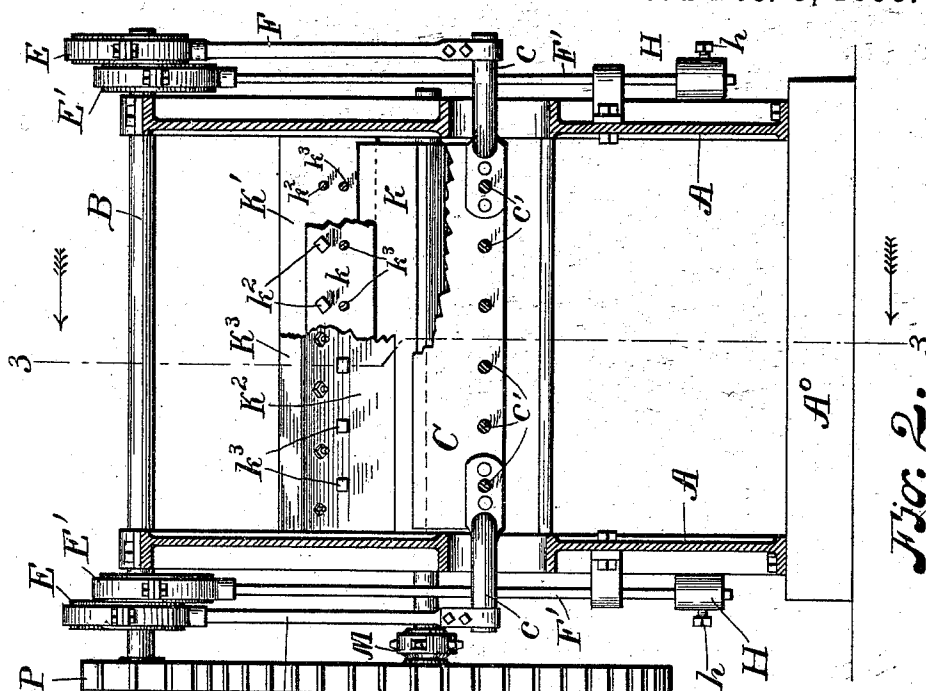


Fig. 2.

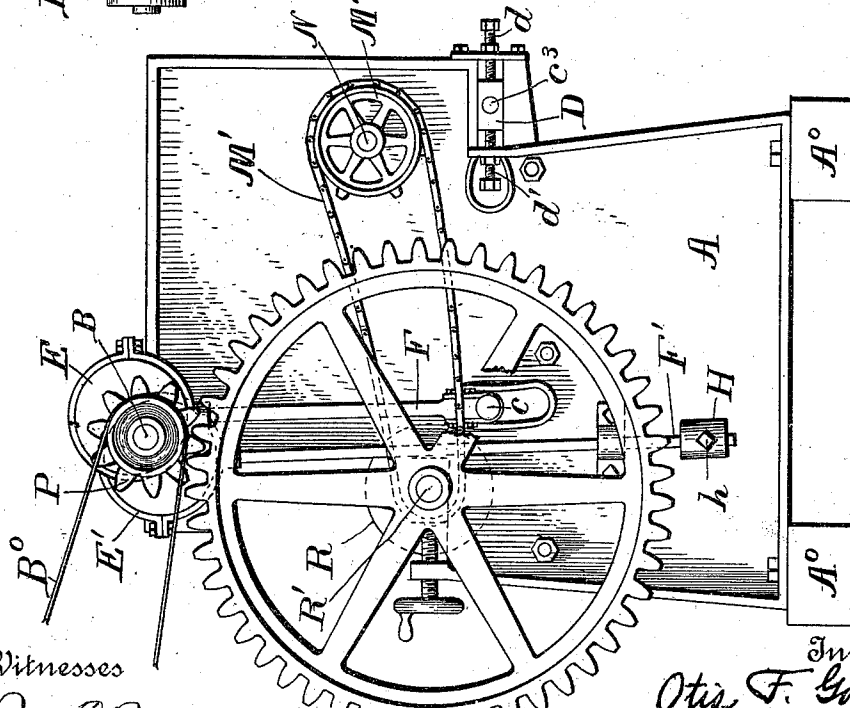


Fig. 1.

Witnesses

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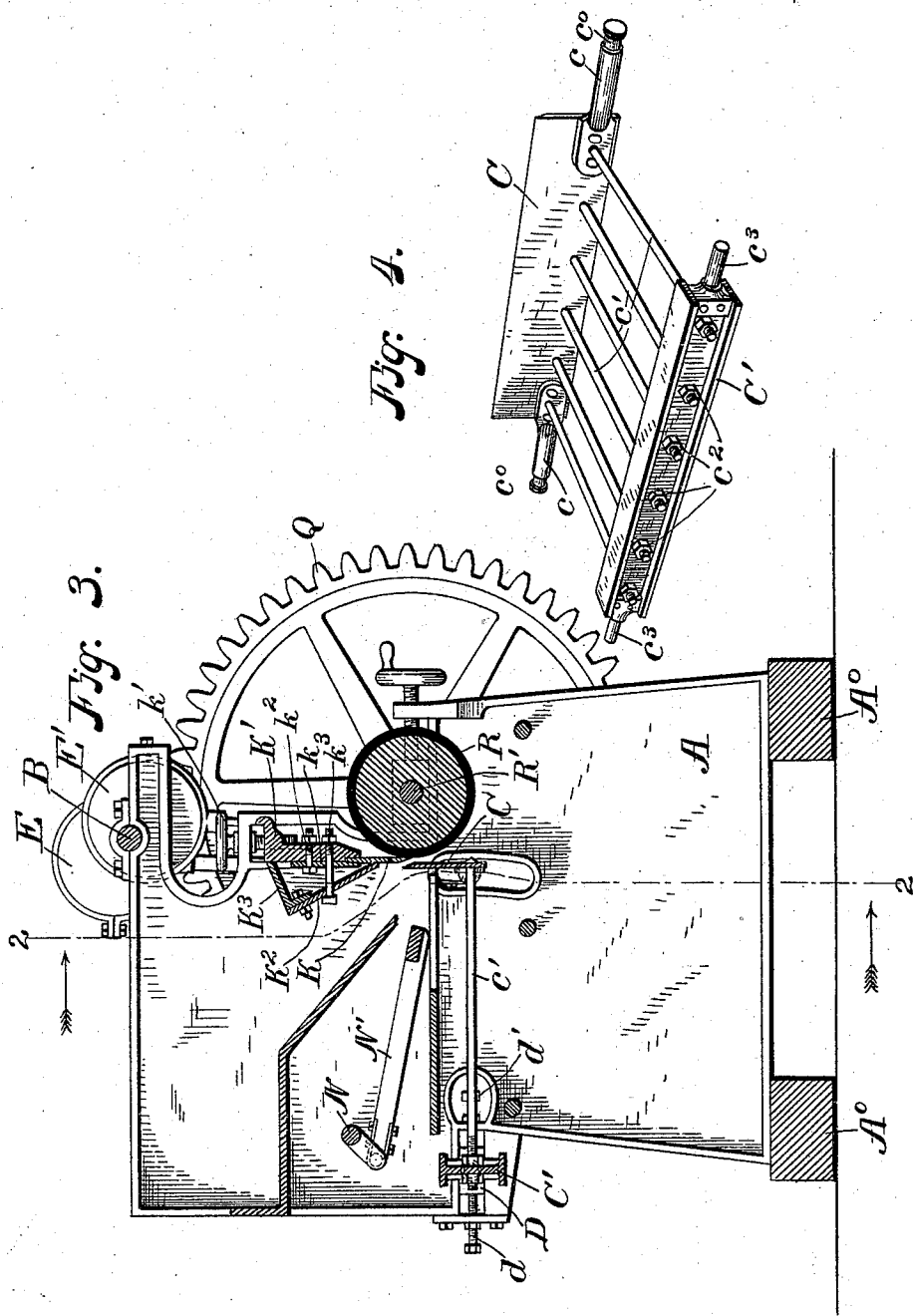
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*Percy C. Bowen*

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# UNITED STATES PATENT OFFICE.

OTIS F. GOODWIN, OF QUITMAN, GEORGIA.

## ROLLER COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 550,753, dated December 3, 1895.

Application filed June 21, 1895. Serial No. 553,588. (No model.)

*To all whom it may concern:*

Be it known that I, OTIS F. GOODWIN, a citizen of the United States, residing at Quitman, in the county of Brooks and State of Georgia, have invented certain new and useful Improvements in Roller Cotton-Gins; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in cotton-gins, and especially to certain improvements upon my Patents No. 497,652, granted May 16, 1893, and No. 530,941, granted December 18, 1894; and the said invention consists in certain improved means for adjusting the fixed blade and the clipper-blade of the gins described in those patents or in other roller cotton-gins of similar make.

My invention will be understood by reference to the accompanying drawings, in which the same parts are indicated by the same letters throughout the several views.

Figure 1 is a side elevation of my improved gin, parts being broken away. Fig. 2 represents a section along the line 2 2 of Fig. 3 and looking in the direction of the arrows, parts being broken away. Fig. 3 represents a section along the line 3 3 of Fig. 2 and looking in the direction of the arrows, and Fig. 4 represents a perspective view of the clipper-blade and connected parts as detached from the machine.

A represents the sides or brackets of the gin, which are mounted upon any suitable platform or foundation, as A<sup>o</sup>.

B represents the driving-shaft, which is driven by the belt B<sup>o</sup>, passing over the fast and loose pulleys B<sup>o</sup>.

C represents the clipper-blade, which is secured to the wrist-pins c, having annular grooves c<sup>o</sup> for the ends of the eccentric-rods F. The distance of this blade from the roller R is adjusted by means of the rods c', which are secured to the double-T beam C' by means of the nuts c<sup>2</sup>. This beam is pivoted on the wrist-pins c<sup>3</sup>, which are journaled in the sliding blocks D, moving in suitable guideways in the framework of the machine and controlled by the adjusting-screws d and d', as shown in Fig. 1. By setting up or easing off on these screws d' the position of the clipper-

blade may be adjusted, and thus its position relative to the roller R may be regulated at will without stopping the gin or causing the blades to strike together.

Any equivalent means for adjusting the blocks D may be adopted, if desired.

The eccentric-rods F are moved by the eccentrics E, and in single gins the weight of the clipper-blade and the parts moving therewith are compensated for by oppositely-disposed eccentrics E', having eccentric-rods F', carrying detachable weights H, which weights are clamped on the said rods by the clamp-screws h and rise as the clipper-blade falls, and vice versa.

The fixed blade K is secured in the adjustable frame K', which is adjusted by means of the adjusting-screws with hand-wheels k'. This blade K is clamped between said frame and the plate k, secured thereto, by means of the bolts k<sup>2</sup>.

The position of the fixed blade relative to the periphery of the roller R is regulated by means of the resilient adjusting-plate K<sup>2</sup>, which is secured at its upper end to the angle-bar K<sup>3</sup>, which is made fast to the frame K', and has its lower end pressed against the blade K by means of the adjusting-bolts k<sup>3</sup>. There are a number of these bolts extending nearly the full length of the fixed blade and any one of which may be set up or eased off, so as to adjust different portions of the fixed blade, whereby the blade may be adjusted to compensate for irregularities in the wear of the blade or in the surface of the roller, as has already been described with reference to the clipper-blade C.

Gins have heretofore been constructed with clamps or small springs perpendicularly disposed on the angle-iron K, and from four to six inches apart, with one bolt through each clamp or spring to set up each one, causing an unequal strain along the roller and digging it out in spots equal to the width and strain of each spring. This is obviated by the long spring-plate, which imposes an equal pressure along the whole length of the blade.

The cotton is fed to the gin by means of the pusher N', which is driven by the shaft N, carrying the sprocket-wheel M<sup>2</sup>, which is driven by the chain M', meshing in the sprocket-wheel M, fast on the shaft R'.

The roller R is mounted on the shaft R', which carries the spur-wheel Q, meshing in the star-wheel P, which is made with long teeth, so as to allow it to engage in spite of the adjustments of the roller R.

The operation of the gin has already been fully described in the patents aforesaid.

It will be obvious that various modifications of the herein-described mechanism might be made which could be used without departing from the spirit of my invention.

Having thus described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a roller cotton gin, the combination with an adjustable frame K' and the plate k connected thereto, of the knife K clamped between said frame and said plate, the angle bar K<sup>3</sup>, the resilient plate K<sup>2</sup> secured to said

angle bar at an angle to and bearing on said knife, and the adjusting bolts k<sup>3</sup> for regulating the pressure of said resilient plate on said knife, substantially as described.

2. In a roller cotton gin, the combination with a clipper blade, moving in the gin frame, and means for imparting a reciprocating motion thereto, of a pivoted beam journaled in said frame and approximately parallel to said frame, means for laterally adjusting the journal bearings of said beam, and adjustable bolts connecting said beam with said clipper blade, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

OTIS F. GOODWIN.

Witnesses:

LOUIS WADE,  
O. K. JELKS.