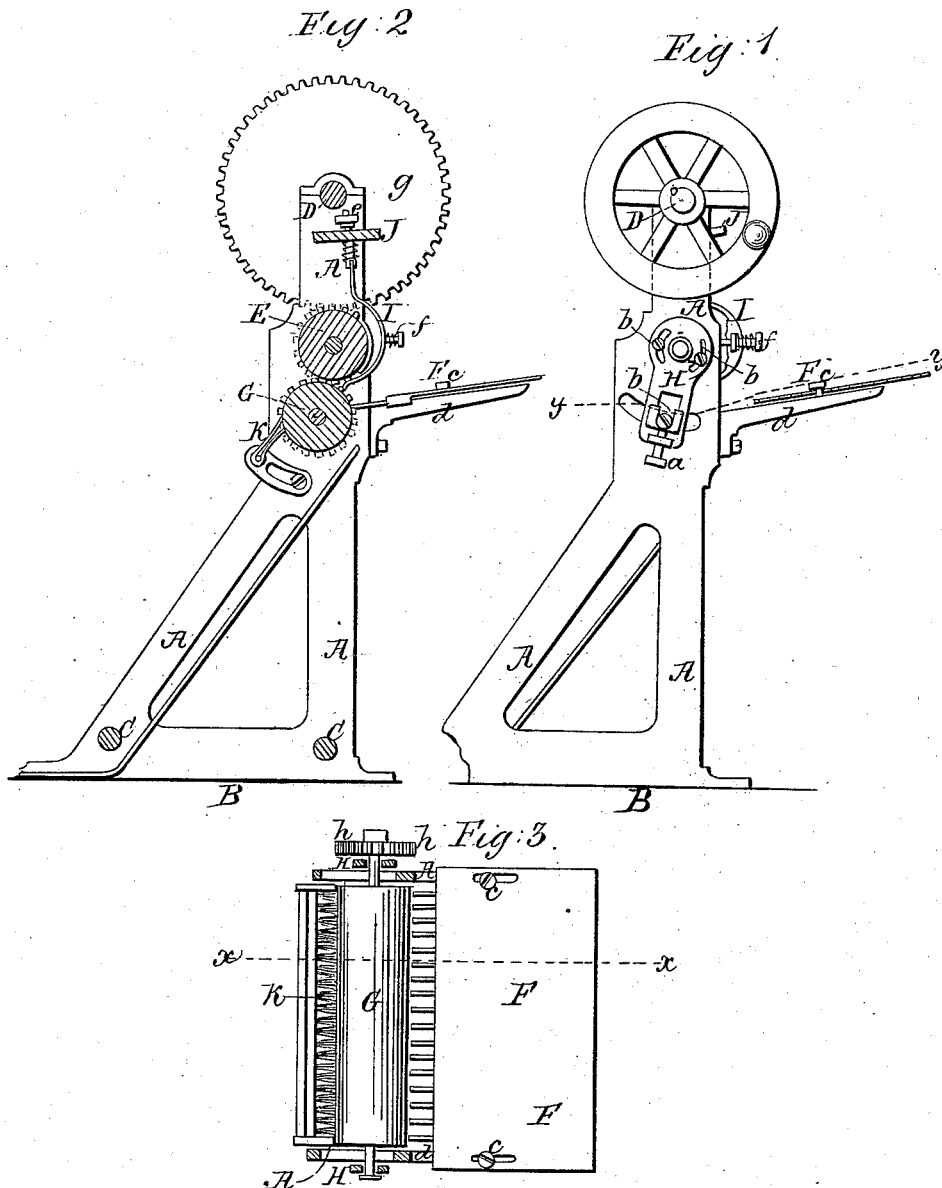


A. FESSENDEN.

Cotton Gin.

No. 66,577.

Patented July 9, 1867.



Witnesses  
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Wm Frewin

Inventor.  
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A. FESSENDEN, OF BEAUFORT, SOUTH CAROLINA.

Letters Patent No. 66,577, dated July 9, 1867.

COTTON-GIN.

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, A. FESSENDEN, of Beaufort, in the district of Beaufort, and State of South Carolina, have invented a new and improved Cotton-Gin; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 represents a side elevation, partly in section, of my improved cotton-gin.

Figure 2 is a vertical cross-section of the same, taken on the line *x x*, fig. 3.

Figure 3 is a horizontal sectional view of the same, taken on the line *y y*, fig. 1.

Similar letters of reference indicate like parts.

This invention relates to a cotton-gin of that class in which the cotton is taken from a stationary platform and is carried between two rollers which are so close together that the seed cannot pass through between the rollers.

The invention consists in the device for hanging the lower roller and adjusting it in the proper position; also, in connection therewith, in an adjustable feed-platform; finally, in the shape of a self-adjusting seed-clipper or knife, and the manner of hanging the same so that it will assist in separating the seed from the fibres before the cotton comes to the rollers.

A represents a frame, which is made of cast iron or other suitable material, and which is set upon a stationary platform, B, and is strengthened by braces C. Two horizontal shafts have their bearings in the upper part of the frame A, the driving-shaft D, and an upper roller, E. G is the lower roller, and has its bearings in plates H, which are suspended from the ends of the shaft E. Each end of the shaft G passes through a segmental slot in the side of the frame, which slots are made in form of a curve that is struck from the axis of the shaft E as centre, (see fig. 1.) The roller G can thus be turned around the roller E, or rather can be set so as to be below the latter or in rear of the same. In the latter case the seed will drop down perpendicular, while, when the rollers are in a vertical line, the seed will pass over the front surface of the lower roller while falling. By means of a set-screw, *a*, the bearings of the roller G may be adjusted in the plates H up and down at will. Screws *b b* serve to clamp the plate H in any desired position. F is a platform, which is secured by means of screws *c* to brackets *d*, which project from the front of the frame A. To the inner edge of this platform are secured teeth, the ends of which almost touch the roller G, and separate the seed and take it from the roller G. The roller G being arranged so that it can be set in different positions, or be turned around the axis E, it is necessary to have the platform F also adjustable, so that it might follow the motions of the roller G and be always close to the same. For that purpose the platform is slotted, and can thus be moved forward or backward, as desired, and clamped by the screws *c*. The rollers G and E may be made of hard substance, or of elastic material, as may be desired. One of the rollers may be corrugated and the other smooth, or both smooth, as desired. I is a curved metallic plate, which serves as a knife or seed-clipper, and which is suspended from a plate, J, which is secured in the upper part of the frame A, and is pivoted in the same so as to turn. Screws *e e* serve to connect the plate I with the bar J, and screws *f f* serve to keep it as far as necessary off the rollers. Spiral springs, which are arranged around the screws *e* and *f*, as shown, make the knife yielding, so that it will not break nor be jarred by seeds. Its lower edge is brought close to the joint between the rolls, and is bent out so as not to cut nor injure the seeds or cotton. By means of the screws *f* the knife can be made to follow the roller G in its movements around the axis of the roller E. A revolving or a stationary brush, K, is arranged in rear of the roller G, to clean the same. Motion is imparted to the rollers from the driving-shaft D by means of a gear-wheel, *g*, on the latter, meshing into a pinion, *h*, on the roller E. The pinion *h* meshes into a pinion which is mounted on the end of the shaft G. The cotton is placed upon the platform F, is drawn through between the rollers E and G, and is discharged on the outside of the rollers. The seeds are partly removed by the clipper I and completely by the rollers, and drop down between the teeth on the platform.

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

1. The roller G, when hung in the swinging-plates H, in which it is adjustable up and down, in combination with the adjustable platform F and adjustable seed-clipper I, all made and operating substantially as herein shown and described.

2. The yielding seed-clipper I, when arranged substantially as herein shown and described, with rounded lower edge, in combination with the rollers E and G of a cotton-gin, substantially as and for the purpose herein shown and described.

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Witnesses:

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