

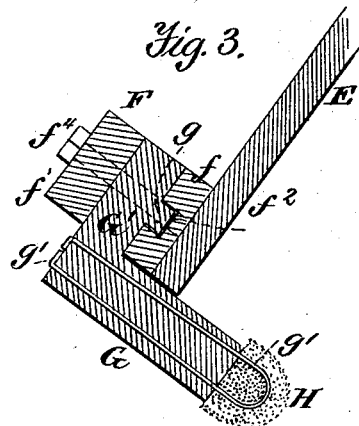
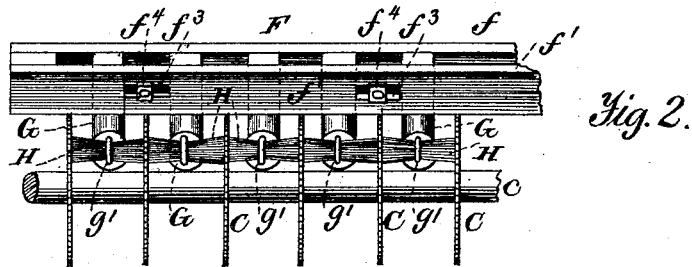
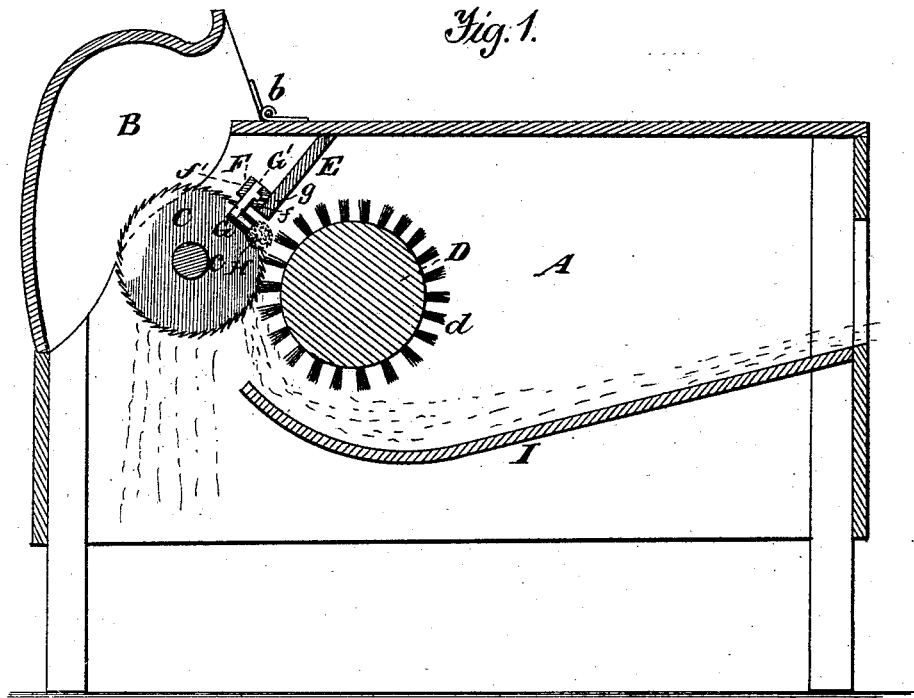
(No Model.)

J. M. COX.

COTTON GIN.

No. 342,333.

Patented May 25, 1886.



Witnesses.  
A. Ruppert.  
Geo. H. Evans

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# UNITED STATES PATENT OFFICE.

JAMES MONROE COX, OF CAMILLA, GEORGIA.

## COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 342,333, dated May 25, 1886.

Application filed September 30, 1885. Serial No. 178,639. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES MONROE COX, a citizen of the United States, residing at Camilla, in the county of Mitchell and State of Georgia, have invented certain new and useful Improvements in Cotton-Gins; and I do 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, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The invention has for its object to provide means by which gin-fires may be extinguished almost as soon as they occur, and to brush the motes from the cotton fiber before the latter is swept from the saws by the rotary brush.

Figure 1 of the drawings is a longitudinal vertical section of a cotton-gin provided with my improvement; Fig. 2, a plan view to show the local relation of holders, brushes, and saws; and Fig. 3, a cross-section showing the construction and form of one of the holders.

In the drawings, A represents the chamber in which the ginned cotton is delivered; B, the feed-hopper; C, the saws; D, the rotary brush that takes the cotton from the saws, and E a board projecting from the cover of the gin over the brush D. About these there is nothing particularly new. Upon the lower end of this board I secure holders G by means of the arms G', the bars  $f f'$ , the nuts  $f^2$ , and the screws  $f^4$ . The arms G' are tongued and bar  $f$  correspondingly grooved at  $g f^2$ , so that there may be no displacement of said arms, and the holders may be exactly adjusted to their places.

$g'$  represents wires or bands doubled at their middle to form loops, in which are placed the bristle bundles H, nicely evened at both ends. The two parallel arms of the wires are carried through the long or main arms of the holders, and end-bent at the outer ends upon the rear of the holders. In this way the bristles are compactly tied to the holders, so as to project equally on both sides thereof, and so that both ends of the bundles will be utilized at the same time. The ends of two bundles, H H, between which each saw rotates, are arranged so as to

touch, and will yield only to such an extent that the saw may pass between them, but, from their proximity and compactness, will press closely against the metal on both sides of the saw.

I am well aware that the saws have been made to rotate between bristles parallel to the saw's plane of rotation; also between two single thin rows of bristles separated, so as only to brush the fiber projecting laterally from the teeth; but the sole object of these is to brush lightly the cotton fiber, while my object is twofold—namely, to extinguish fire in the cotton by smothering it between the thick bundles of bristles on each side of the teeth, and to more thoroughly cleanse the fiber before it leaves the saws. The saws often get out of their true plane of rotation and generate so much friction in passing between the ribs that combustion ensues, and often great damage results. This also occurs when a stone gets into the hopper or among the cotton; also, the cotton as fed by careless men into the hopper will catch fire from a match or a cigar.

By repeated experiments with my tightly-bound bundles of bristles made to touch the opposite ones I find that a fire is extinguished at once, and that the fiber is delivered into chamber A in a remarkably clean and merchantable condition.

Having thus described all that is necessary to a full understanding of my invention, what I claim as new, and desire to protect by Letters Patent, is—

1. The combination, with the holders G and bristle bundles H, of the wires  $g'$ , doubled with both arms passing through the holders, and end-bent against the latter, as described.

2. In cotton-gins, the bristle bundles H and holders G, having arms or shanks G', ribbed at  $g$ , in combination with the clamp-bars  $f f'$ , screws  $f^3$ , and nuts  $f^4$ , bar  $f$  having the groove  $f^2$ , as and for the purpose specified.

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

JAMES MONROE COX.

Witnesses:

CHAS. R. WRIGHT,  
GEO. H. EVANS.