I. F. BROWN.

Brush for Cotton Gins.

No. 239,716. Patented April 5, 1881.

Fig. 2.

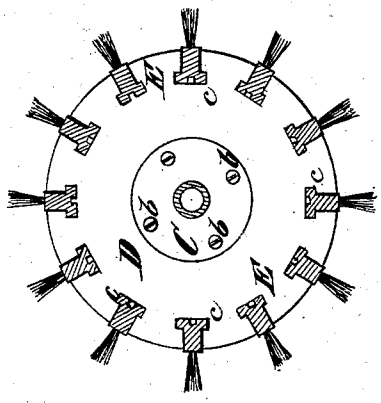


Fig. 3.



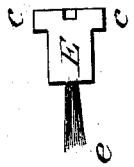
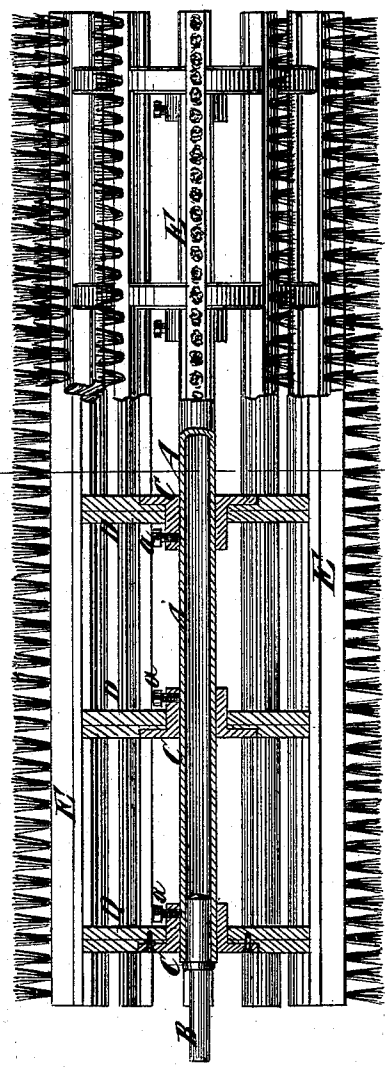


Fig. 1.



Witnesses

John Becker

Thomas E. Birch.

Inventor

Israel F. Brown

by his Attorneys

Brown & Brown

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

ISRAEL F. BROWN, OF NEW LONDON, CONNECTICUT.

BRUSH FOR COTTON-GINS.

SPECIFICATION forming part of Letters Patent No. 239,716, dated April 5, 1881.

Application filed June 17, 1879.

To all whom it may concern:

Be it known that I, ISRAEL F. BROWN, of New London, in the county of New London and State of Connecticut, have invented certain new and useful Improvements in Brushes for Cotton-Gins, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which the invention appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

In the accompanying drawings, similar letters of reference marked thereon indicate like parts of the invention.

This invention relates to certain improvements in brushes for cotton-gins; and the novelty consists in the construction of the same, as will be hereinafter more fully described, and particularly pointed out in the claims.

Figure 1 represents a side view, partly in section; Fig. 2, a longitudinal view, also partly in section, of the brush-cylinder; and Fig. 3 a detached view of the rib and manner of securing it.

A is a hollow shaft having solid journals B, one at each end.

C C are flanged hubs secured upon the shaft A by set-screws *a*. To said hubs are secured the disks D, by bolts *b*. These disks D are secured at suitable distances on the shaft A. The number may be more or less to suit the length of brush required.

E E are ribs or rails in which the brush tufts or bristles *e* are inserted, said ribs running parallel with the line of the shaft, and secured to the periphery of the disks D in the manner hereinafter set forth. Any number of the ribs may be employed to give the best results. These ribs E have longitudinal projections *c c* at their base, to form shoulders, and some to hold the rib firmly in place when the cylinder is rapidly rotated. The disks D are provided with slots E′, the configuration of which is the reverse of a transverse section of the rib, and are adapted to receive said ribs and hold them securely when the cylinder is rapidly rotated.

It will readily be seen that to effectually secure the ribs E in the series of disks D it is only necessary to insert them in the slots E′ and use any simple means to provide against longitudinal displacement.

In operating cotton-gins it is a well-known fact that the brush-cylinder is revolved very rapidly and centrifugal force is created to a considerable extent, and the tendency is to cause the ribs or brushes to come nearer than is desirable to the gin-saws and thus interfere with the proper working of the gin proper.

It will readily be seen that the manner in which I construct my ribs and secure them in the disks to form a brush-cylinder renders it impossible for them to be affected by centrifugal force.

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

1. In a cotton-gin, the ribs or rails E, provided with longitudinal projections *c c* and bristles *e*, substantially as and for the purpose set forth.

2. In a cotton-gin, the ribs E, having longitudinal projections *c c* and bristles *e*, in combination with the disks D, having slots E, substantially as and for the purpose set forth.

3. In a cotton-gin, the combination of the ribs E *e c c*, disks D, having slots E′, and the hollow shaft A, substantially as and for the purpose set forth.

4. In a cotton-gin, the combination of the ribs E *e c c*, disks D E′, hubs C, and the hollow shaft A, provided with the solid journals B, substantially as and for the purpose set forth.

In testimony whereof I have hereunto set my hand in the presence of two witnesses.

ISRAEL F. BROWN.

Witnesses:

E. T. BROWN,

GEORGE COLFAX.