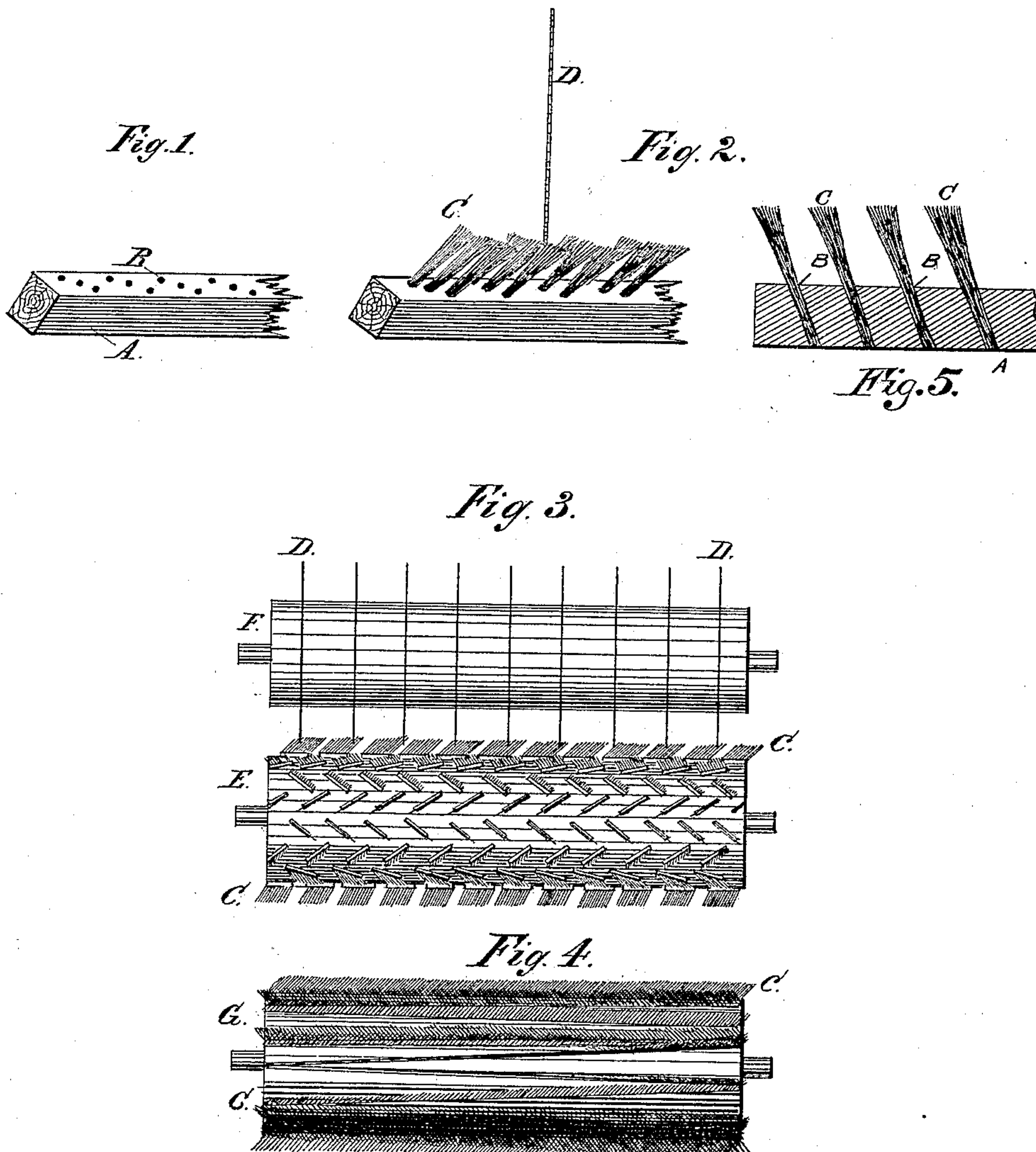


(No Model.)

R. F. SPANGENBERG.  
BRUSH FOR COTTON GINS.

No. 395,362.

Patented Jan. 1, 1889.



WITNESSES  
*Helmut Holtz*  
*J. J. Yennine*

INVENTOR  
*Robert F. Spangenberg*  
By *his Attorney*  
*W. R. Stringfellow*

# UNITED STATES PATENT OFFICE.

ROBERT F. SPANGENBERG, OF NEW ORLEANS, LOUISIANA.

## BRUSH FOR COTTON-GINS.

SPECIFICATION forming part of Letters Patent No. 395,362, dated January 1, 1889.

Application filed April 26, 1887. Serial No. 236,197. (No model.)

*To all whom it may concern:*

Be it known that I, ROBERT F. SPANGENBERG, a citizen of the United States of America, residing at New Orleans, in the parish of Orleans and State of Louisiana, have invented certain new and useful Improvements in Brushes for Cotton-Gins, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention is an improvement on that covered by my Letters Patent, numbered 360,486, dated April 5, 1887, for brush for cotton-gins, and will be fully understood from the following description and claim when  
15 taken in connection with the annexed drawings, in which—

Figure 1 is a broken sectional view of a lag for a brush-cylinder, showing the openings for the tufts of bristles. Fig. 2 is a broken  
20 sectional view of a lag and one saw, showing the bristles in position with respect thereto. Fig. 3 is a top view showing a gang of gin-saws and the bristles on short lags placed at different angles on the brush-cylinder. Fig.  
25 4 is a side view showing long lags placed obliquely to the axis of the cylinder. Fig. 5 is a longitudinal sectional view of a portion of one of the lags, showing bristles therein.

Referring to the annexed drawings by letter, A designates a bar or lag which may be  
30 of any desired length, width, and thickness, and which is adapted to be applied to the surface of a brush-cylinder for cotton-ginning machinery. Each lag A is provided with perforations, as at B, arranged diagonally for the

purpose of receiving the roots of bristle-tufts C. It will be observed that these perforations, which are arranged diagonally, are inclined and placed in parallel series in the face of the lags. When the lags, with the tufts inserted  
40 in them, as described, are applied to a cylinder, E, and suitably secured, the arrangement of the lags carrying the brushes or bristle tufts is as I have represented in Figs. 3 and 4—that is to say, the lags having the rows of  
45 tufts are arranged obliquely on the surface of the cylinder either in short zigzagging sections, as shown in Fig. 3, or in lines extending obliquely from one end of the cylinder to the other, as shown in Fig. 4. In both in-  
50 stances the lags and rows of tufts are arranged diagonally in opposite directions for the purpose of sweeping dry or damp lint or seed-cotton from the teeth of the saws D and also thoroughly cleaning the saws of gummy  
55 matter.

Having described this invention, what I claim is—

A brush-cylinder provided with lags having diagonally-arranged inclined perforations in  
60 parallel series, as shown, and the tufts of bristles secured in the said inclined perforations, substantially as specified.

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

ROBERT F. SPANGENBERG.

Witnesses:

G. J. YENEWINE,  
HENRY J. RHODES.