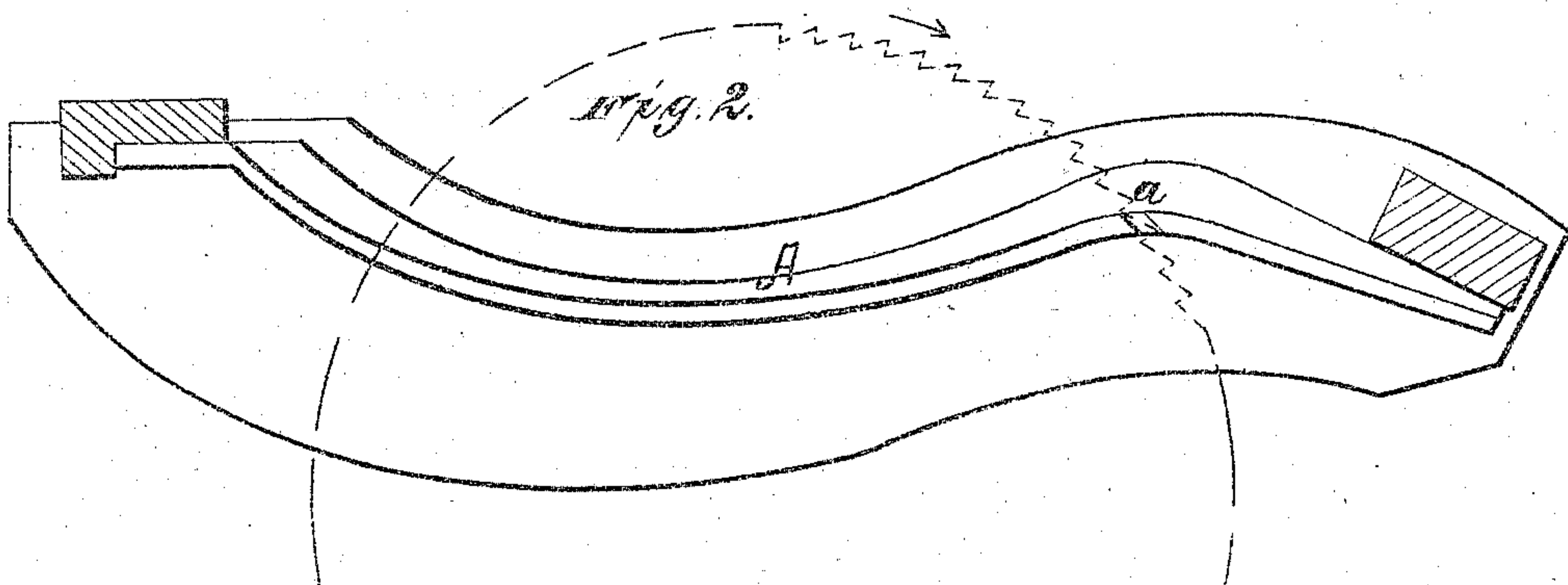
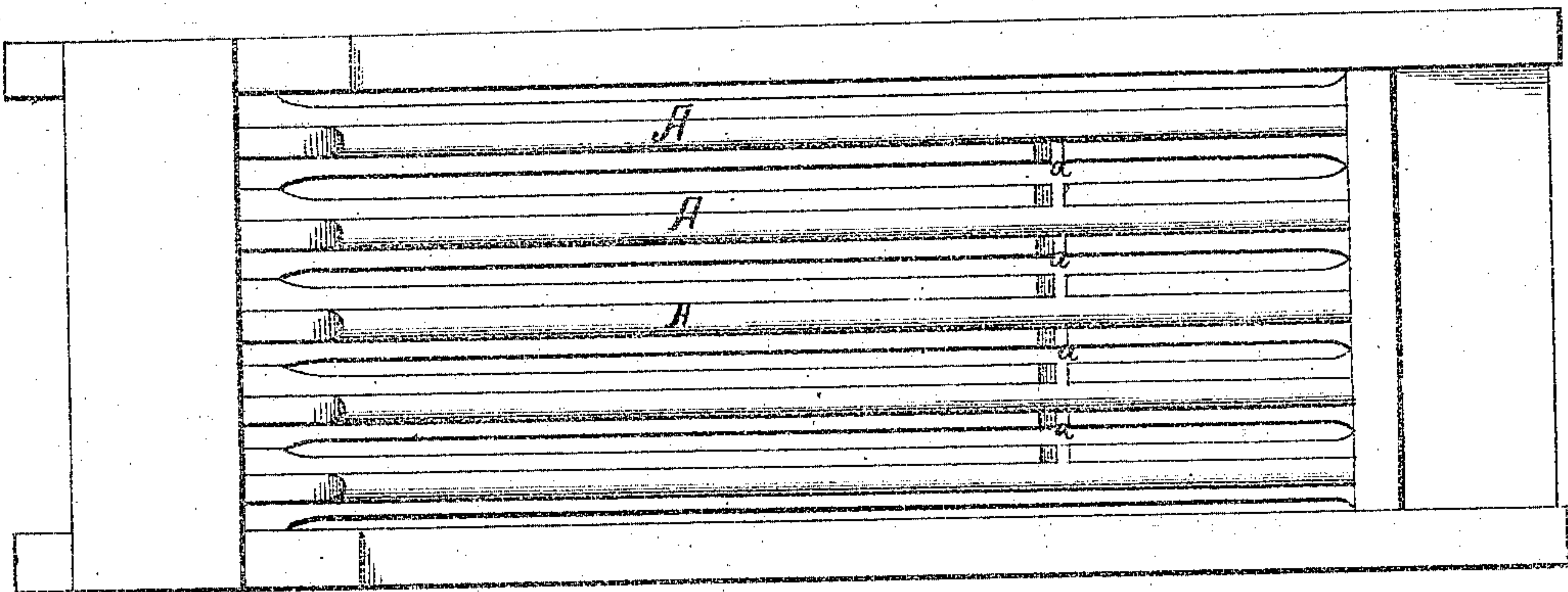


J. R. GRAY.  
Cotton Gin.

No. 238,109.

Patented Feb. 22, 1881.

*Fig. 1.*



WITNESSES

*F. L. Curran*  
*H. A. Toulmin*

BY

INVENTOR

*James R. Gray*  
*Handwritten signature*

ATTORNEYS

# UNITED STATES PATENT OFFICE.

JAMES R. GRAY, OF CHESTERVILLE, MISSISSIPPI.

## COTTON-GIN.

SPECIFICATION forming part of Letters Patent No. 238,109, dated February 22, 1881.

Application filed August 23, 1878.

*To all whom it may concern:*

Be it known that I, JAMES R. GRAY, of Chesterville, in the county of Pontotoc, and in the State of Mississippi, have invented certain  
5 new and useful Improvements in Cotton-Gins; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this  
10 specification.

My invention relates to ribs for cotton-gins; and it consists in providing each rib with an inclined notch or slot on each side, as will be  
15 hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the  
20 annexed drawings, in which—

Figure 1 is a plan view of a set of cotton-gin ribs embodying my invention. Fig. 2 is a longitudinal section of the same.

A A represent a series of ribs for cotton-gins, said ribs being made in any desired form. Each rib A has on each side an inclined notch  
25 or slot, *a*, at the point where the saws draw the cotton down between the ribs.

It is well known that the ribs cut the staple  
30 of cotton, the tooth gathering more cotton than it can force between the ribs, and the cotton is necessarily cut or torn from the tooth. It is not the saw-tooth, but the rib, that cuts the staple of cotton. To obviate this difficulty I  
35 provide the ribs with the inclined notches or slots *a a*, which allow the cotton to pass through

on each side of the tooth, giving it more room to make its escape to the brush-wheel, having nothing in the way to cut or tear the staple, which gives the full length of the staple, thus  
40 increasing the value of the cotton.

I deem the incline of the slots important, as they allow a plane of action corresponding to the bevel of the teeth and the arc described by the periphery of the saw.  
45

I am aware that a cotton-gin rib has been provided with a plate inserted therein, and a straight slot made in said plate, and I do not claim such as my invention. In my rib the  
50 slots *a* are cut on an angle or slope of the tooth of the saw, which draws the lint through the slot on a direct line with the tooth of the saw. If the slots were not so inclined, but straight, the lint would hang on the upper  
55 edges of the slots and fill them up, so that the gin could not roll the cotton.

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

A cotton-gin rib provided on each side with  
60 a slot inclined so as to correspond with the arc of a circle described by the periphery of the saw, as and for the purposes herein set forth.

In testimony that I claim the foregoing I  
65 have hereunto set my hand this 4th day of February, 1878.

JAMES R. GRAY.

Witnesses:

J. J. MCCARTHY,  
JAS. G. DOZIER.