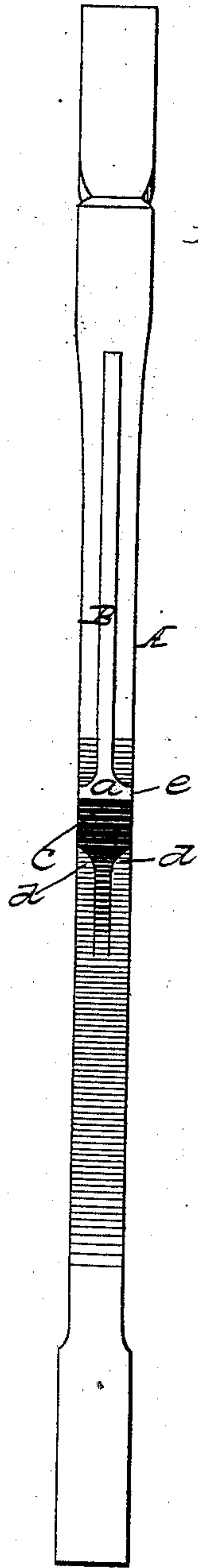


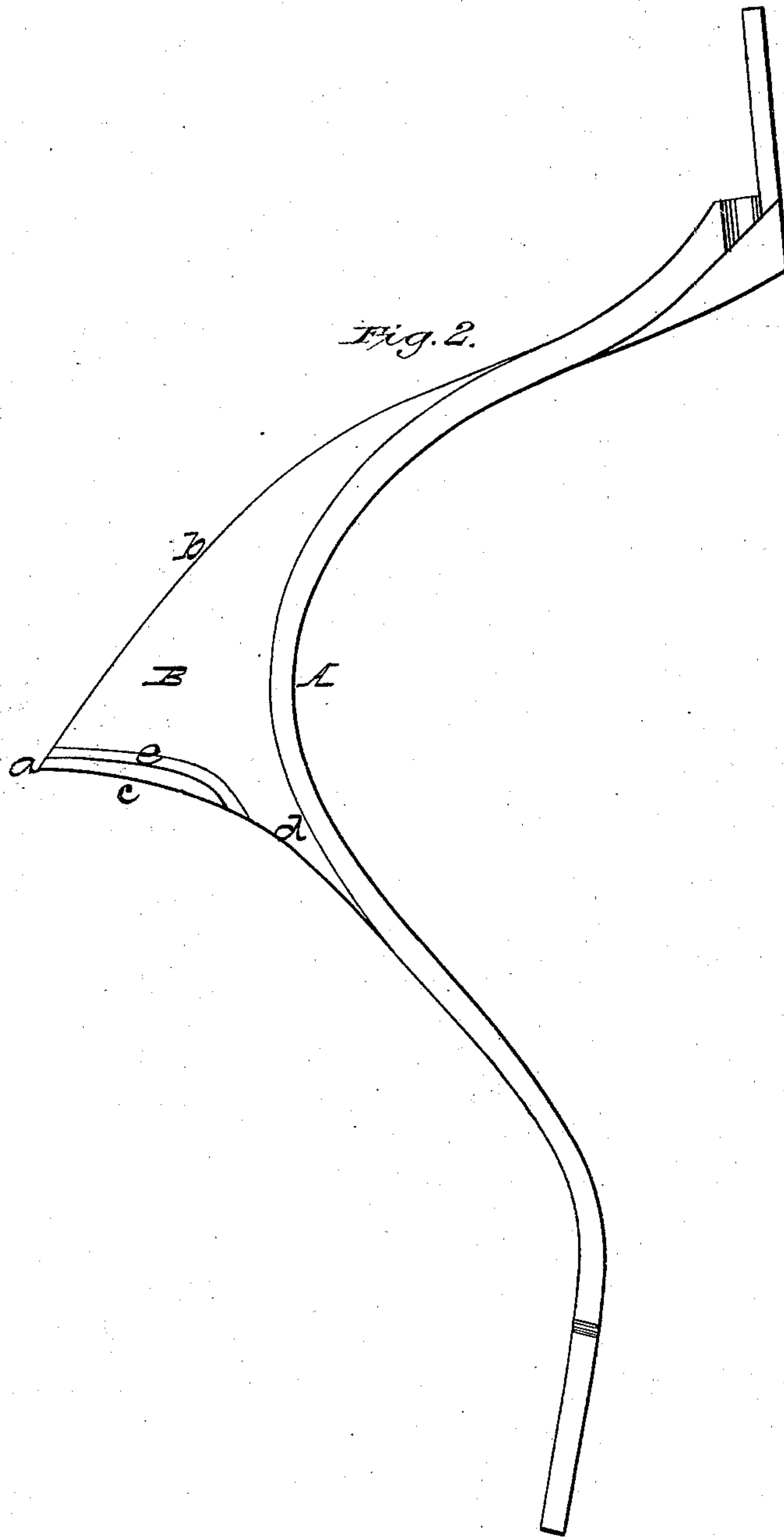
J. A. SMILEY.  
Cotton-Gin Rib.

No. 216,903.

Patented June 24, 1879.



*Fig. 1.*



*Fig. 2.*

WITNESSES

*Villette Anderson*  
*J. H. Winter*

INVENTOR

*J. A. Smiley*  
*by C. H. Anderson*

ATTORNEY

# UNITED STATES PATENT OFFICE

JAMES A. SMILEY, OF PRATTVILLE, ALABAMA.

## IMPROVEMENT IN COTTON-GIN RIBS.

Specification forming part of Letters Patent No. **216,903**, dated June 24, 1879; application filed May 12, 1879.

*To all whom it may concern:*

Be it known that I, J. A. SMILEY, of Prattville, in the county of Autauga and State of Alabama, have invented a new and valuable Improvement in Cotton-Gin Ribs; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawings is a representation of an end elevation of my improved cotton-gin rib. Fig. 2 is a side elevation thereof.

This invention has relation to means for separating hulls and foreign substances from cotton before it is ginned, and for guiding the separated seed downward; and it consists, mainly, in the construction and novel arrangement of a strong curved gin-rib, having on the central portion a thin angular flange, projecting centrally outward from its face, its upper edge sloping to the body of the rib, and its lower edge or base having on each side a narrow flange, terminating at a sufficient distance from the body of the rib to leave a seed-passage on each side of the flange next the rib-body, as hereinafter shown and described.

In the accompanying drawings, the letter A designates the body of the rib, having a strong convex curvature, to adapt it to its position between the gin-saws and near their outer or working teeth.

B represents the flange, centrally projecting outward from the convex face of the rib, and extending along its middle portion in the direction of its length. This flange is of small thickness compared with the breadth of the body of the rib, and is angular in form, its apex *a* projecting beyond the teeth of the saws, between which the rib is placed. The upper edge, *b*, of the flange slopes gradually to the body of the rib, merging into its face at about

the point where the saw-teeth carry the lint through between the ribs and separate the seed. The lower edge or base of the flange is broad, being widened on each side to form a stop, *c*, at or nearly at right angles to the direction of motion of the saw-teeth at this point. This stop-base of the flange, although broad, is not so wide as the body of the flange, as it is designed to allow the cotton and seed to pass upward, while throwing down the hulls and large foreign substances. The lateral flanges *e* of the base terminate at a sufficient distance from the body of the rib to leave a downward passage, *d*, on each side of the main flange next the rib, which, with the base-flanges, serves to guide the falling seed through these downward passages, whence they pass out. The rib is made very strong by means of this base-flange; and as its stop *c* throws down many foreign substances which, if carried up, would wear it at the point where the lint is carried through, it serves to render the rib more durable, while materially facilitating the general separating operation of the gin.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

A gin-rib having projecting longitudinally from the central portion of its convex face a thin angular flange, B, sloping upward by a thin edge to the rib-face, and terminating below by lateral base-flanges, forming a stop, *c*, and downward passages *d* on each side of the main flange between the stop-flanges and the rib-body, substantially as specified.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JAMES A. SMILEY.

Witnesses:

W. L. ELLIS,  
T. C. HOYLE.