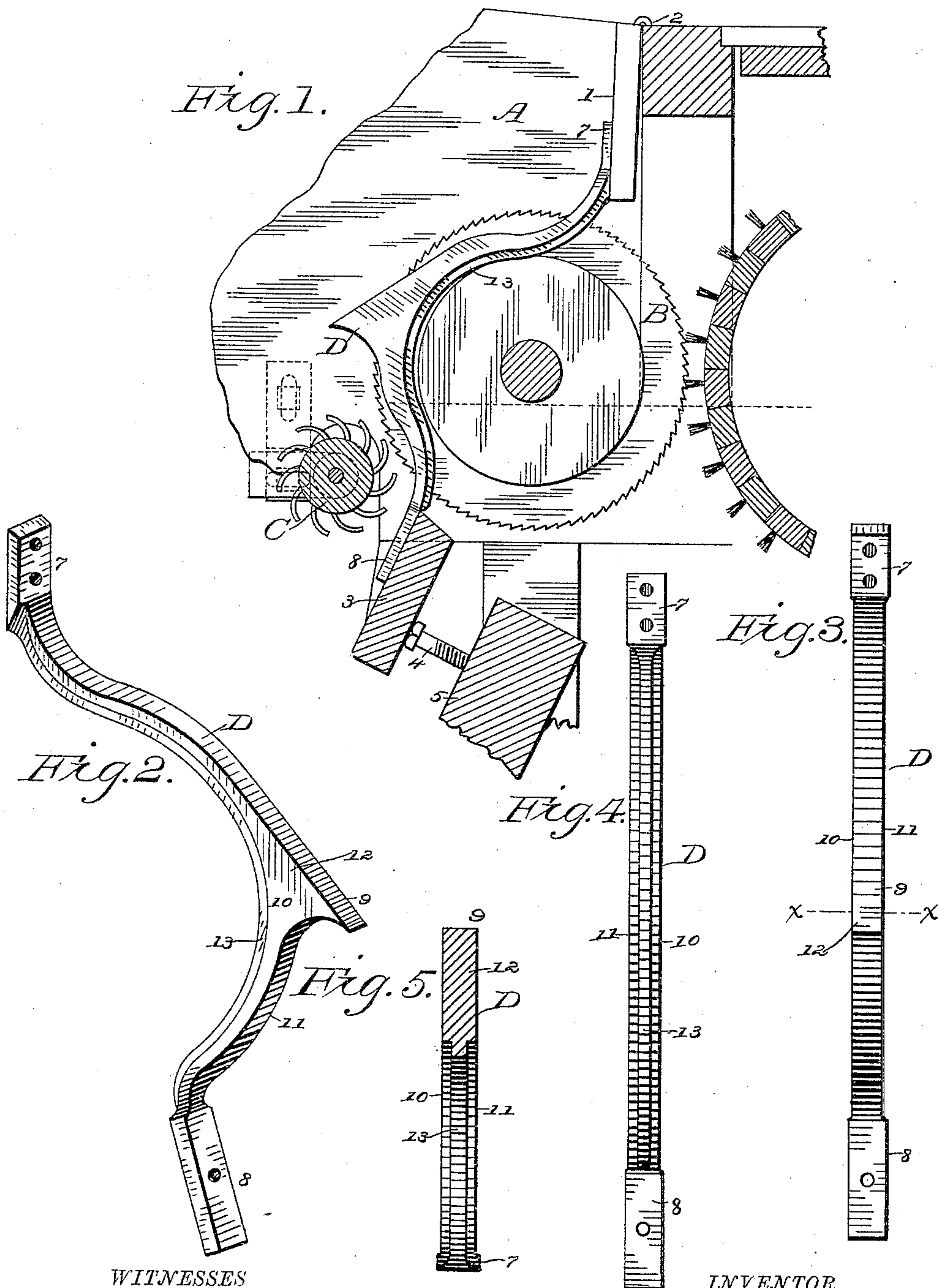


(No Model.)

I. T. WASHBURN.  
COTTON GIN RIB.

No. 446,724.

Patented Feb. 17, 1891.



WITNESSES

*Wm. Musser.*  
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# UNITED STATES PATENT OFFICE.

ISAAC T. WASHBURN, OF SING SING, NEW YORK.

## COTTON-GIN RIB.

SPECIFICATION forming part of Letters Patent No. 446,724, dated February 17, 1891.

Application filed May 10, 1890. Serial No. 351,318. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC T. WASHBURN, a citizen of the United States of America, residing at Sing Sing, in the county of Westchester and State of New York, have invented a new and useful Cotton-Gin Rib, of which the following is a specification.

My invention has relation to improvements in cotton-gin ribs applicable to saw-gins; and the object is to provide a rib for such machines which will accomplish the separation of the seeds from the fiber with certainty and speed without damage to the materials while passing through the saws and ribs; and my invention consists in the novel construction of the gin-rib, whereby the purposes intended are completely attained.

In the accompanying drawings I have fully and clearly illustrated my invention.

Figure 1 is a vertical sectional view of the hopper, saws, picker-wheel, and adjacent elements of a saw cotton-gin, my improved gin-rib being shown as applied thereto. Fig. 2 is a perspective view of the rib detached. Fig. 3 is a top plan view of the rib. Fig. 4 is a bottom view thereof. Fig. 5 is a cross-section on the line *x x* of Fig. 3.

A designates the hopper of the cotton-gin; B, the saws, and C the picker-wheel. These parts may be of any of the approved constructions, and since my improved rib can be operatively applied to any cotton-gin of substantially the construction shown it is not deemed pertinent to a proper understanding of the combined mechanism to give further or more specific description of these parts. In the hopper is a support 1, hinged to the frame of the gin, as at 2, and to which support the upper ends of the ribs are secured by screws, and below the saws is arranged and secured a cross-piece 3, on which the lower ends of the ribs rest and to which they are secured, substantially as shown in Fig. 1 of the drawings. The ribs are adjusted in their relation to the saws by adjusting-screws 4 in the cross-piece 3, whereby the breast of ribs may be raised and lowered and set to do work for coarse or fine grades of cotton.

These means for attaching and adjusting the ribs are no part of my invention, and may be altered or replaced to suit different constructions of saw-gins.

D designates my improved cotton-gin rib. This consists of cast metal formed in a single piece having a stem or main rib with formed ends to secure it to the supporting-pieces of the breast. The main rib D is of the shape shown in the drawings, with the shaped ends 7 and 8 to fasten it to the supports. The rib on its upper face 9 is made entirely plain throughout its operative length, and has the sides 10 11 vertical and at right angles to the top face. At substantially the middle of the length of the rib is formed a broad flange 12, which is of the usual exterior contour or shape given to "rib-flanges" heretofore made on ribs, my improvement being that the flange is made of the same thickness as the stem of the rib throughout and is without side or end flanges. It will be perceived that the construction of the rib is rectangular in its top and side faces, and may be so in practice; but to save metal and give strength in the depth of the rib I form on the bottom of the rib a central flange 13.

Actual use of these ribs in a cotton-gin has demonstrated their superiority over any other construction known to me, the work being accomplished in a better manner, increased capacity, and improvement in sample of fiber.

Having thus described my invention, what I claim is—

A cotton-gin rib having the entire upper face of the stem plain and the sides smooth and at right angles to the top face of the stem, and a broad flange 12 of the same thickness throughout as the body of the rib, substantially as described.

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

ISAAC T. WASHBURN.

Witnesses:

SAML. L. COOPER,  
JAMES S. FITCH.