

I. F. BROWN.

Cotton Gin.

No. 39,767.

Patented Sept. 1, 1863.

Fig: 1.

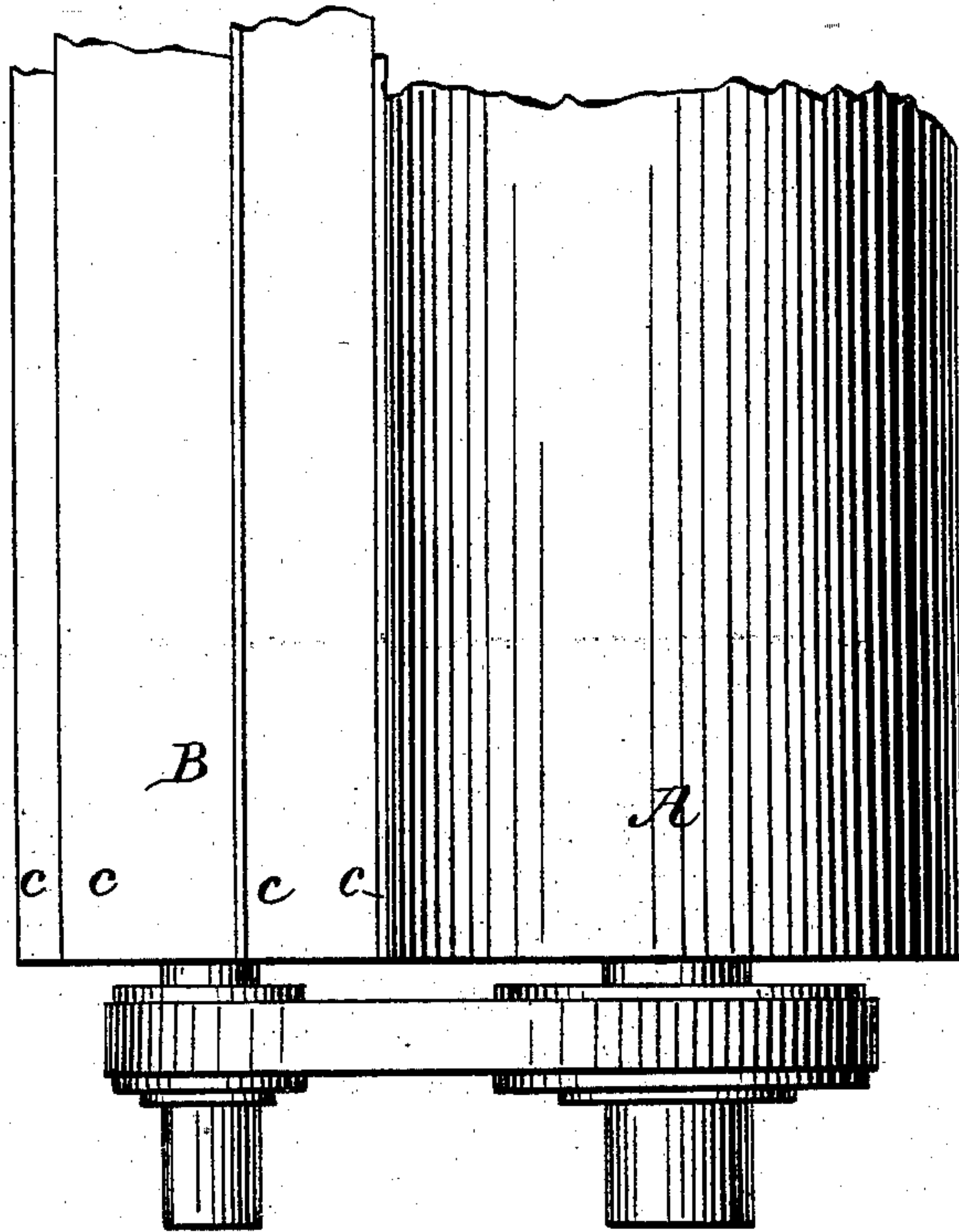
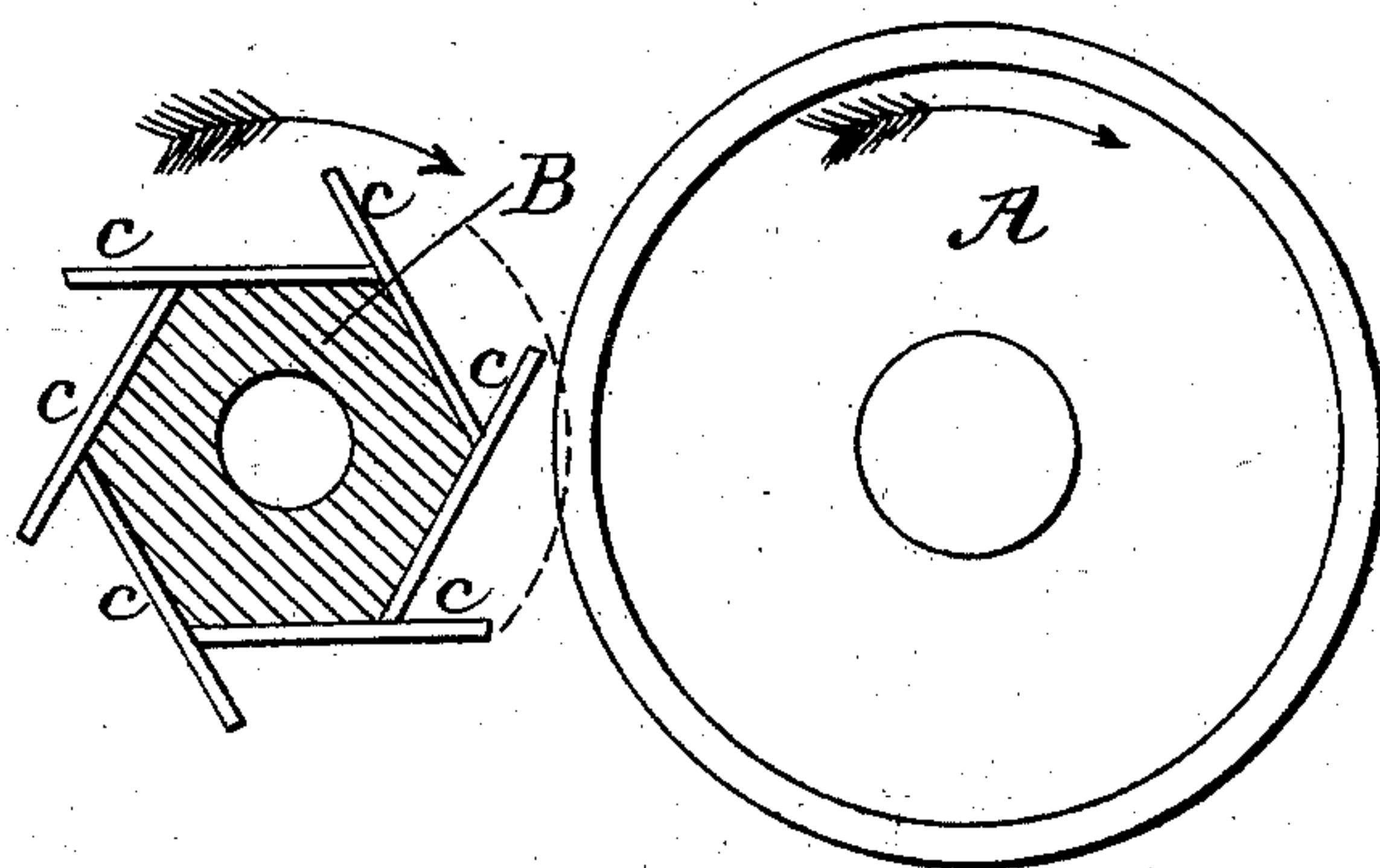


Fig: 2.



Witnesses.

J. H. Maynard,
Attest

Inventor

Israel F. Brown
by his Attorney
J. P. Puffer

UNITED STATES PATENT OFFICE.

ISRAEL F. BROWN, OF NEW LONDON, CONNECTICUT, ASSIGNOR TO MARY JANE BROWN, F. H. LUMMUS, AND JEREMIAH JOHNSON, OF BROOKLYN, AND THEODORE BOURNE.

IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. **39,767**, dated September 1, 1863.

To all whom it may concern:

Be it known that I, ISRAEL F. BROWN, of New London, county of New London, and State of Connecticut, have invented certain new and useful Improvements in Cotton-Gins; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being made to the annexed drawings, making a part of this specification, in which similar letters indicate similar parts throughout the figures.

My improvement is especially applicable to that class known as the "roller-gin;" and it consists in a peculiar construction of the "doffer" or "doctor," which strips off the ginned cotton from the cylinder, by which construction the stripping is effected with greater certainty and with less breaking or disruption of the fiber.

In the annexed drawings, Figure I represents a top or plan view of the doffer and the cylinder; and Fig. II is a transverse vertical section through both, showing the relative position of each to the other.

The cylinder A is constructed in the ordinary manner, being usually of wood covered with leather. This receives the cotton to be ginned at about the line of the horizontal plane passing through its axis on the one side and delivers it to be taken off by the doffer on the opposite side in about the same plane. This doffer has been variously constructed, but some defective operation has attended the use of each. My construction is as follows:

The body or shaft may be of wood, and is in the form in the section of a regular polygon, which I prefer to make of six sides, as at B. On each of those sides is affixed a thin plate, *c*, of some material which will have sufficient elasticity to return to its normal position after being slightly deflected; and for this I prefer sheet-zinc. The manner in which these are arranged is clearly shown in Fig. II. The outer edges of all are of uniform radial distance from the axis. The doffer is to be set so near to the cylinder A that the path of motion of the outer edges of the plates *c* will fall within the circumference of the cylinder, and as the cylinder is comparatively unyielding and the plates *c* are to be made thin these plates will yield as they pass over the surface of the cylinder, thus scraping its surface. The doffer and the cylinder are to be so connected by a belt that both shall rotate in the same direction, as shown, and they should also be so speeded relatively that every portion of the surface of the cylinder will be acted on by the plates of the doffer.

I claim—

Constructing the doffer of plates of metal or equivalent material, arranged and operating substantially in the manner set forth.

In witness whereof I have hereunto subscribed my name.

ISRAEL F. BROWN.

Witnesses:

S. H. MAYNARD,

ALFRED F. BRITTON.