

B. D. GULLETT.
COTTON GIN.

No. 10,406.

Patented Jan. 10, 1854.

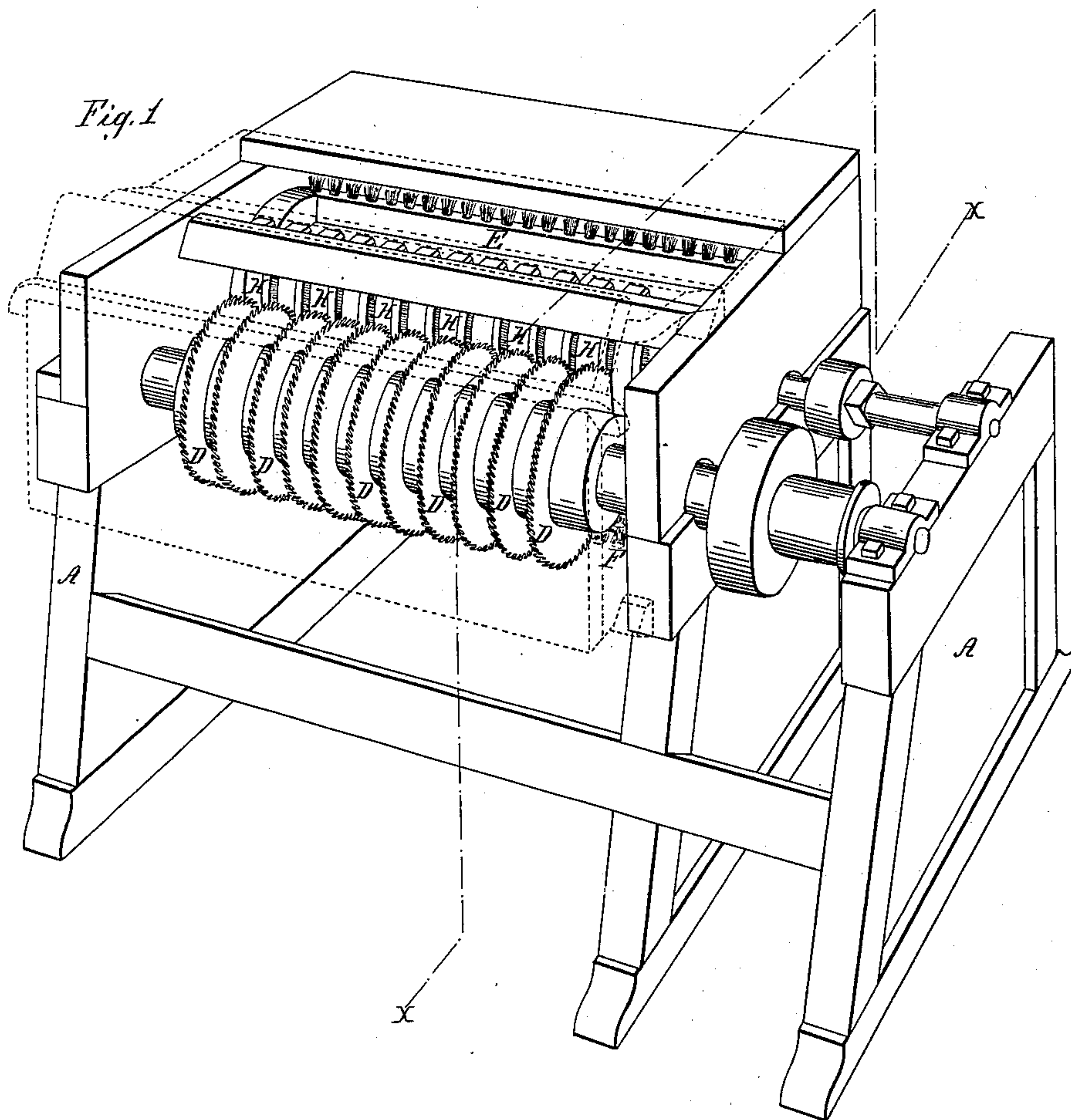


Fig. 4

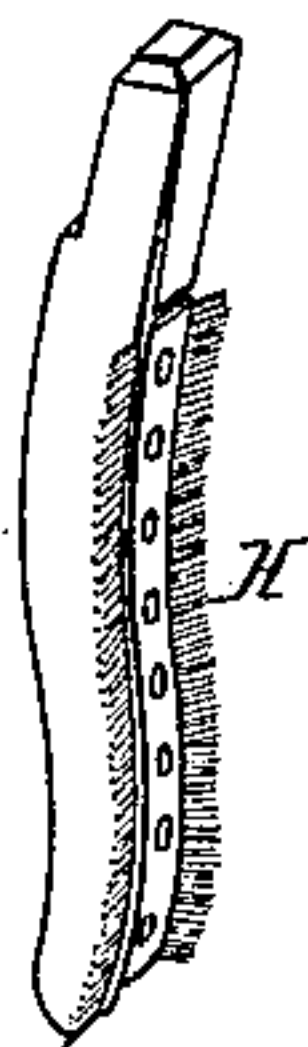


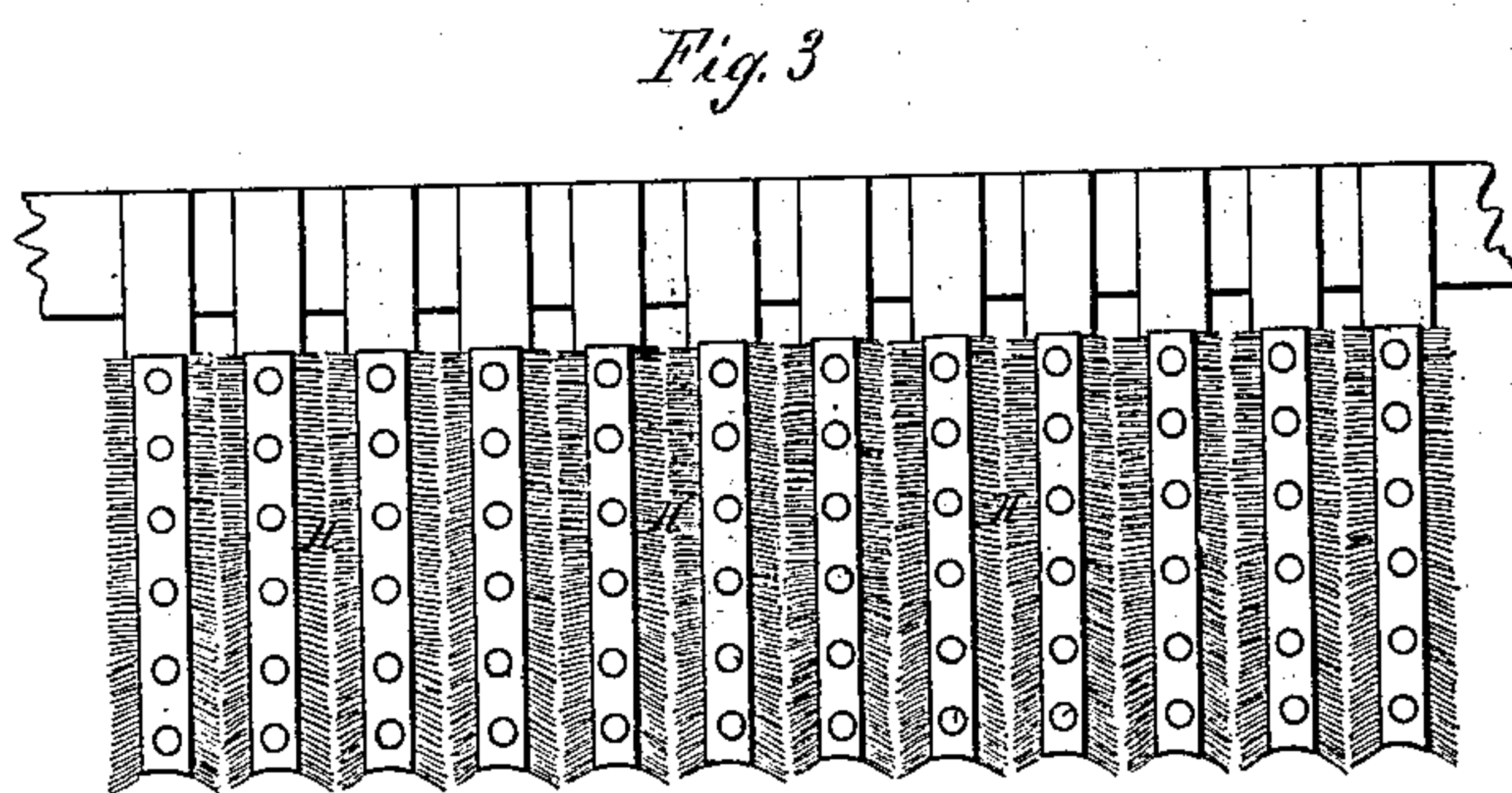
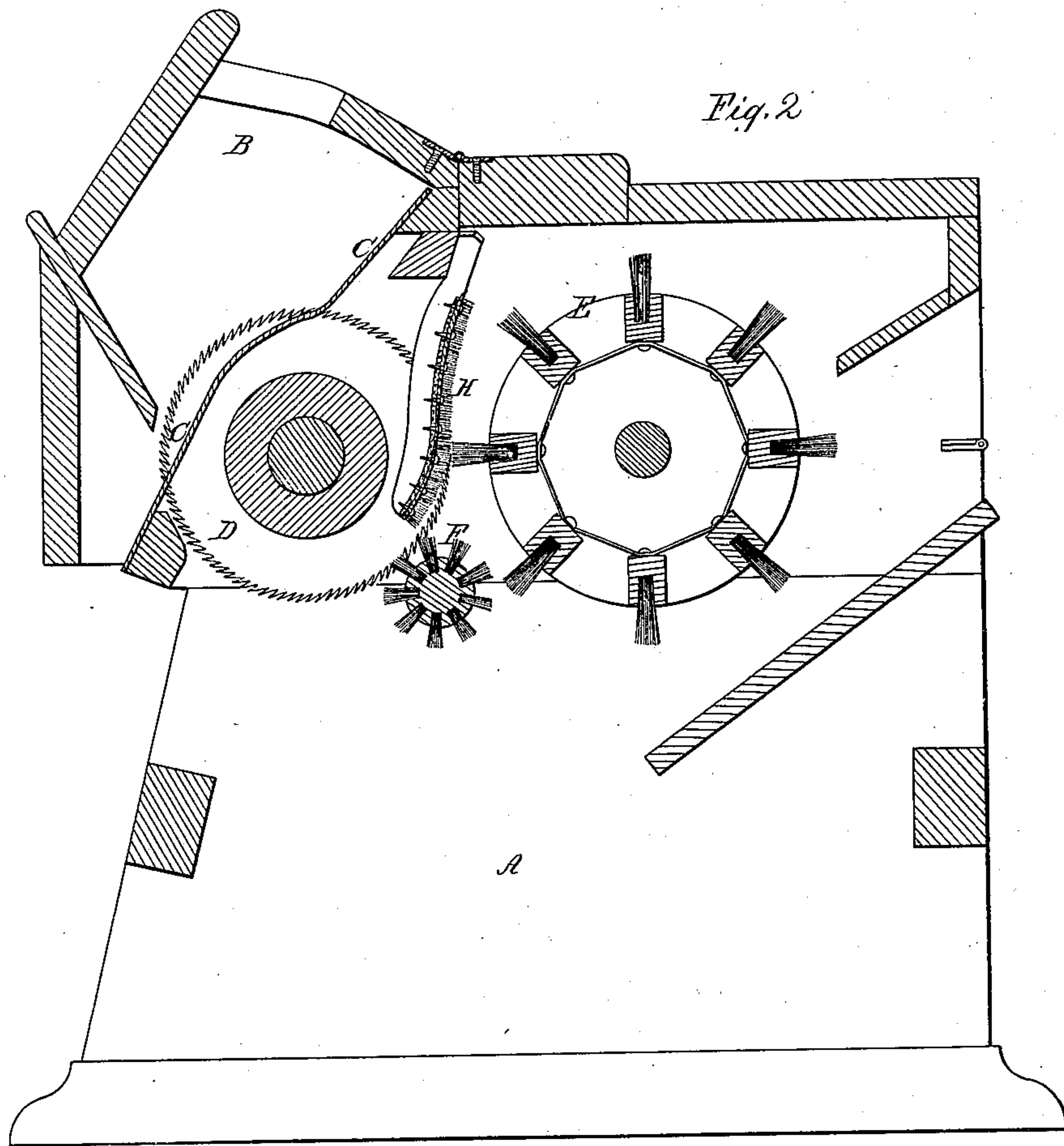
Fig. 5



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UNITED STATES PATENT OFFICE.

BENJ. D. GULLETT, OF ABERDEEN, MISSISSIPPI.

IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. **10,406**, dated January 10, 1854.

To all whom it may concern:

Be it known that I, BENJAMIN D. GULLETT, of Aberdeen, in the county of Monroe and State of Mississippi, have invented certain new and useful Improvements in Cotton-Gins, of which the following is a full, clear, and exact description, reference being had to the annexed drawings of the same, which make part of this specification, and in which—

Figure 1 represents a view in perspective of a gin having my improvements applied thereto, a portion of the cover or casing being represented in red lines as if it were transparent, so that the mechanism within may be exposed to view. Fig. 2 represents a vertical section at the line *x x* of Fig. 1. Fig. 3 represents a view of a series or comb of brushes detached, which are for the purpose of separating motes from the fiber while it is on the saw. Fig. 4 represents a view in perspective of one of the mote-brushes detached from its stock, and Fig. 5 represents a transverse section of the same.

My invention and improvement consists in combining with the usual saws and brushes a series of supplementary brushes for the purpose of separating the motes more effectually from the cotton, and otherwise dressing it better.

In the accompanying drawings, a gin of the usual form and general arrangement is represented, A being the frame; B, the hopper for the reception of the cotton whose fiber and seeds are to be separated. C are the grate-bars of the hopper, and D are the saws, whose teeth run between the grate-bars to seize and pull through the fiber of the cotton while the seeds are detained by the grate, the spaces between the bars of which are too small for them to pass through. E is the usual rotary brush for stripping the fiber off from the saw-teeth. F is a smaller supplementary rotary brush, which separates a large proportion of the motes from the fiber on the stripper; but the

chief means of separating the motes from the fiber is the comb or series of brushes H, which are so arranged that one brush stands between each pair of saws. The position of the bristles of this brush H is such that they will rub the motes of the fibers engaged in the teeth by a drawing stroke, and therefore with little danger of stripping off the fiber, mixing it with the motes, and causing great waste, as in all the modes heretofore essayed of effecting this object. In this way the fiber is subjected to a far greater amount of working on the saw than heretofore without increasing appreciably the wastage. From the position of the brush H it separates the motes from the cotton fiber before the latter leaves the saw, and delivers them beneath the saws in a receptacle, which keeps them separate from the fiber, thus preventing any admixture of them after they have once been separated.

I am aware that brushes have been so arranged in gins that their bristles extended between the saws, but in such manner that the sides of the bristles would act against the fibers. Therefore I make no claim to any arrangement of bristles acting in that manner, my invention being confined to such an arrangement of the brushes that their bristles will act endwise against the fiber, in which position they are found to brush out the motes with much better effect than in any other.

What I claim as my invention, and desire to secure by Letters Patent, is—

The combination of the mote-brush, arranged and operating in the manner herein described, with the saw and stripping-brushes, substantially as specified.

In testimony whereof I have hereunto subscribed my name.

B. D. GULLETT.

Witnesses:

P. H. WATSON,
P. HANNAY.