

R. J. Clay
Cotton Gin.

Nº 87,635.

Patented Mar. 9, 1869.

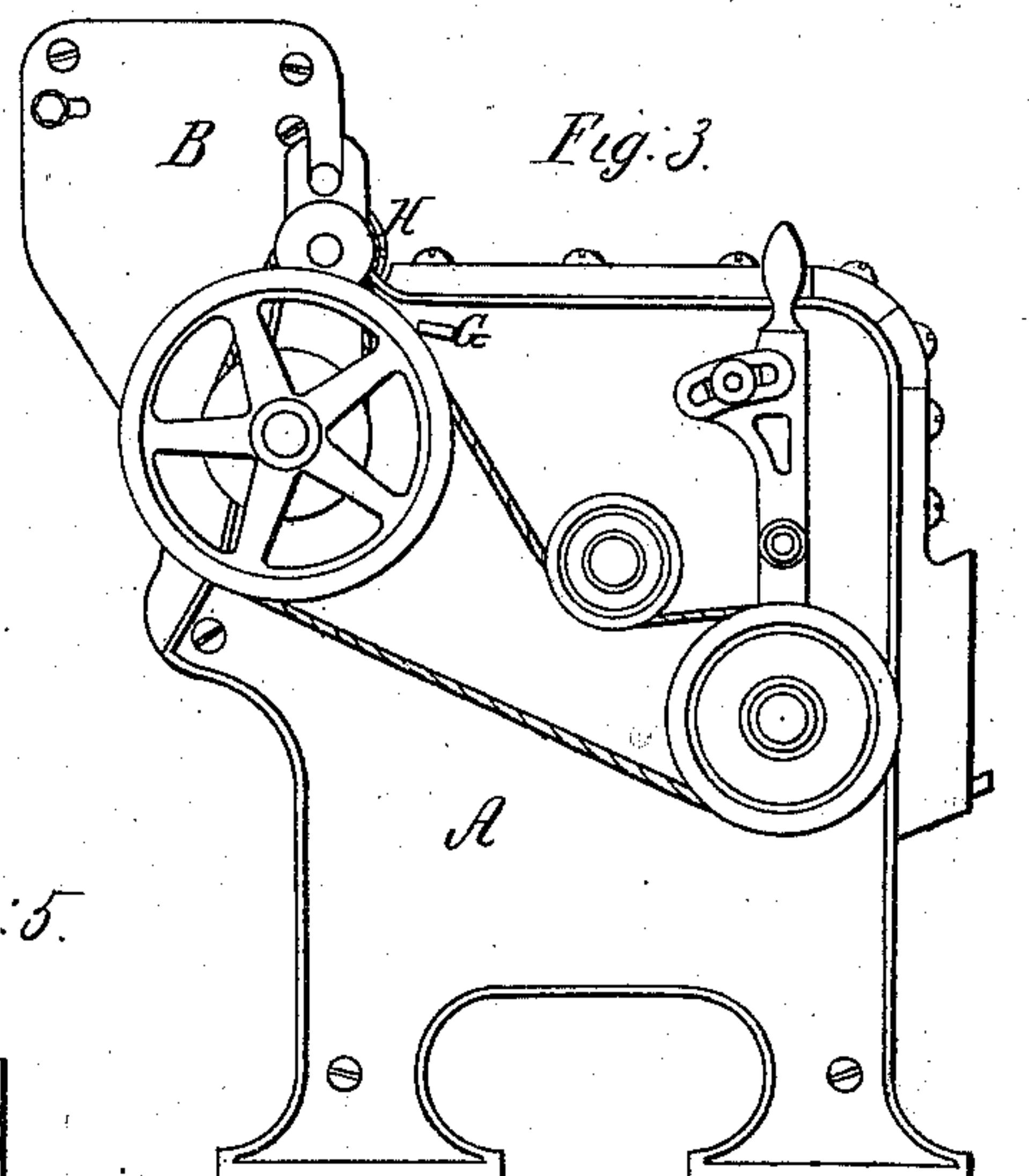
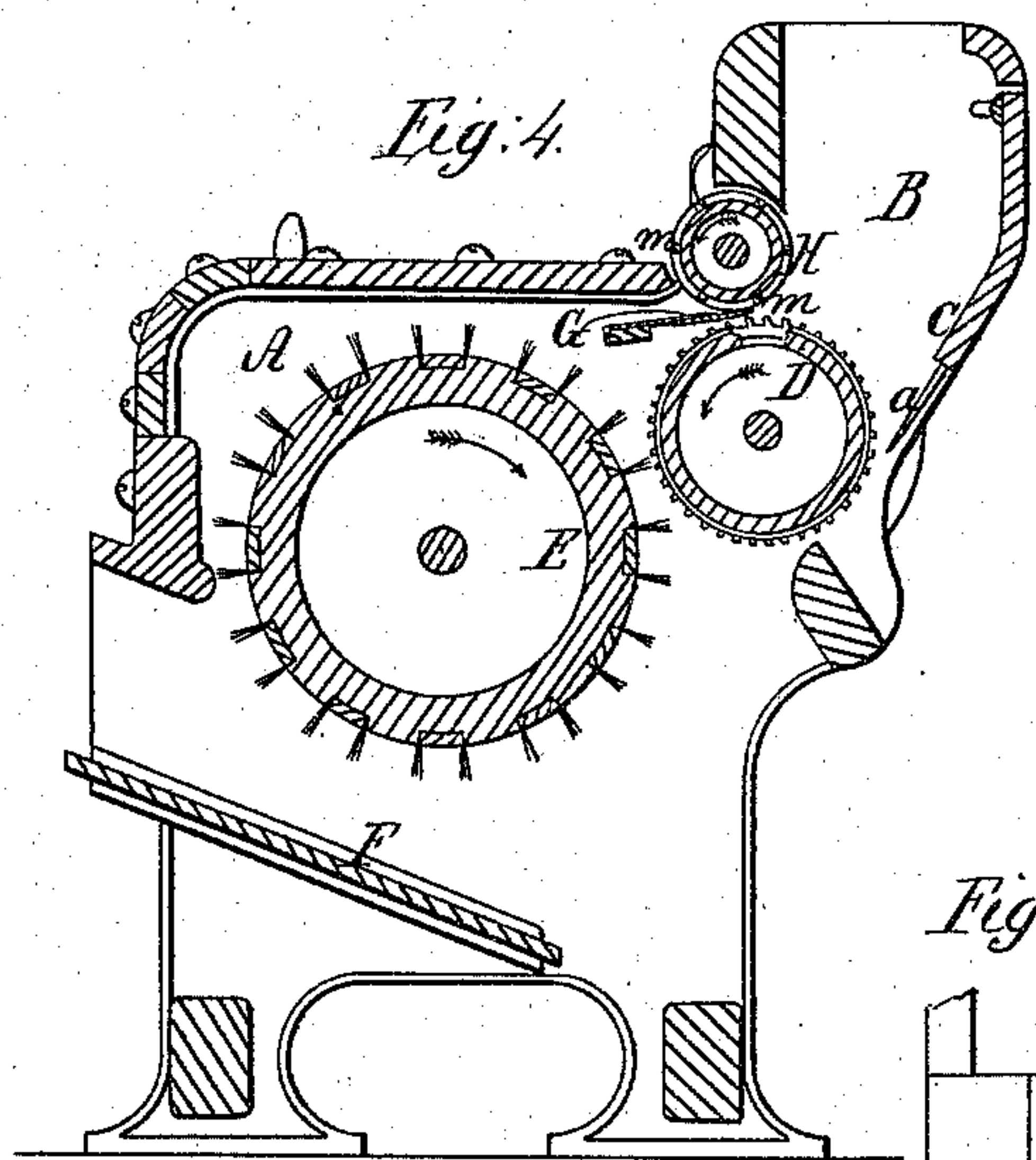
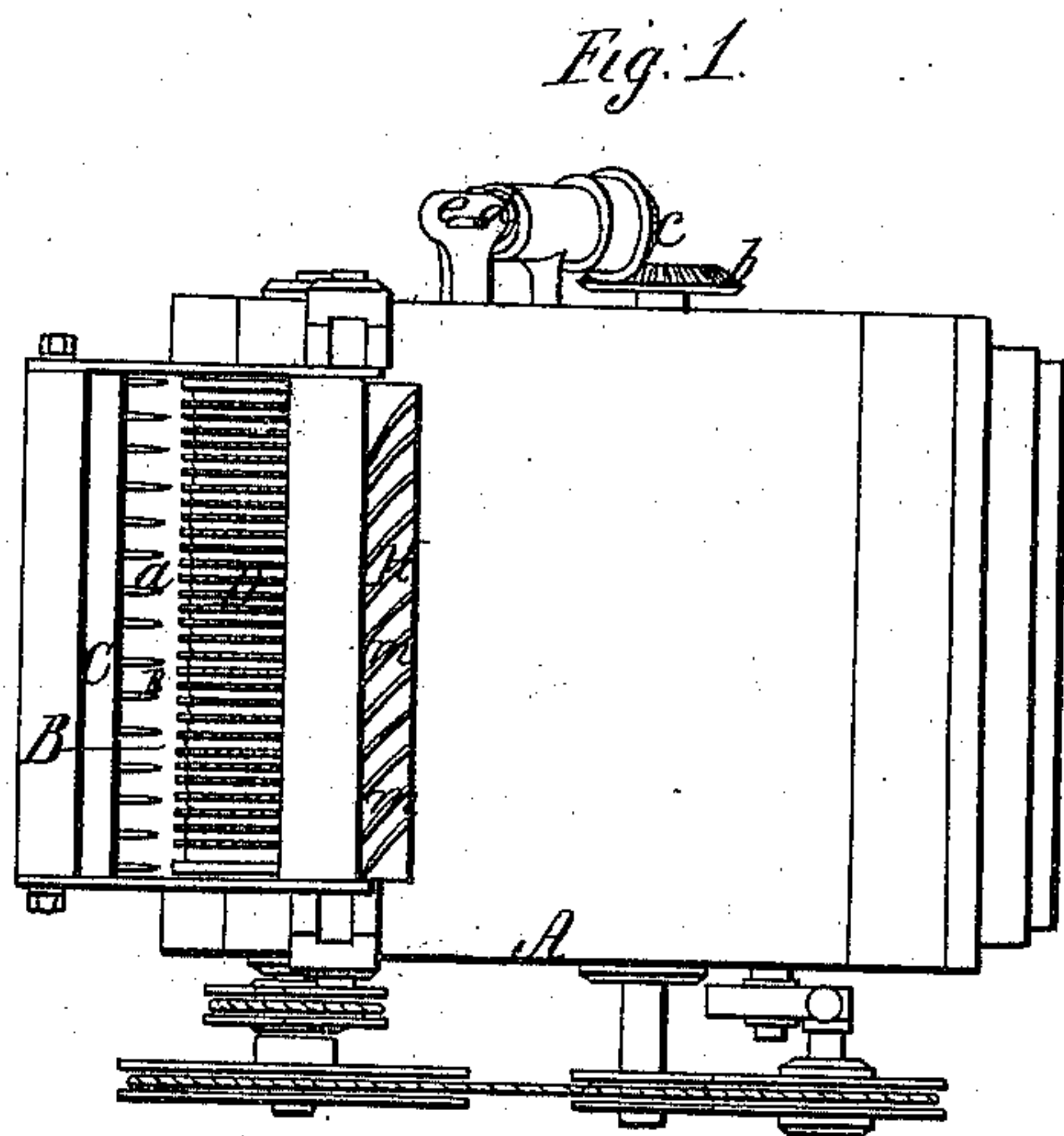
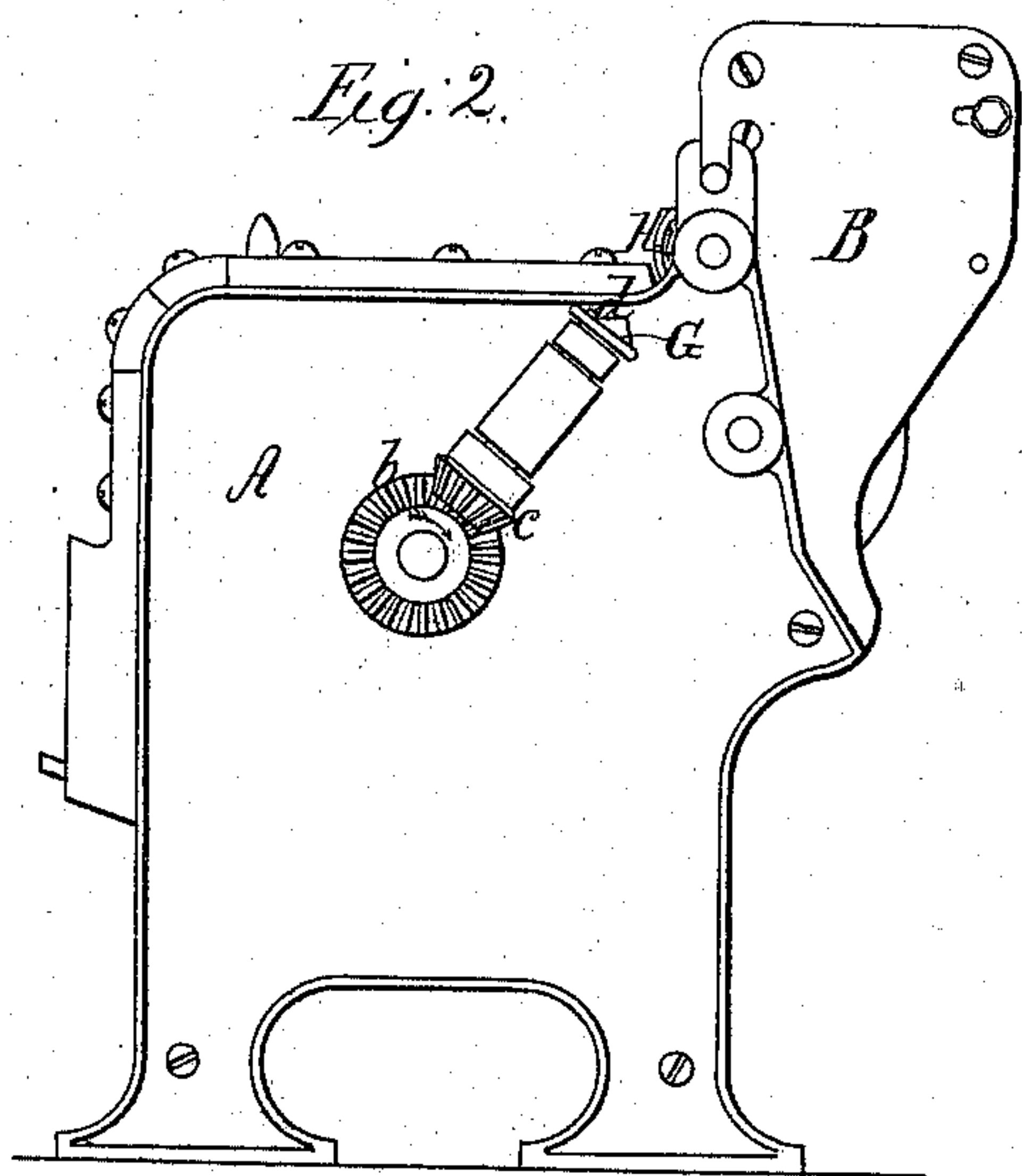
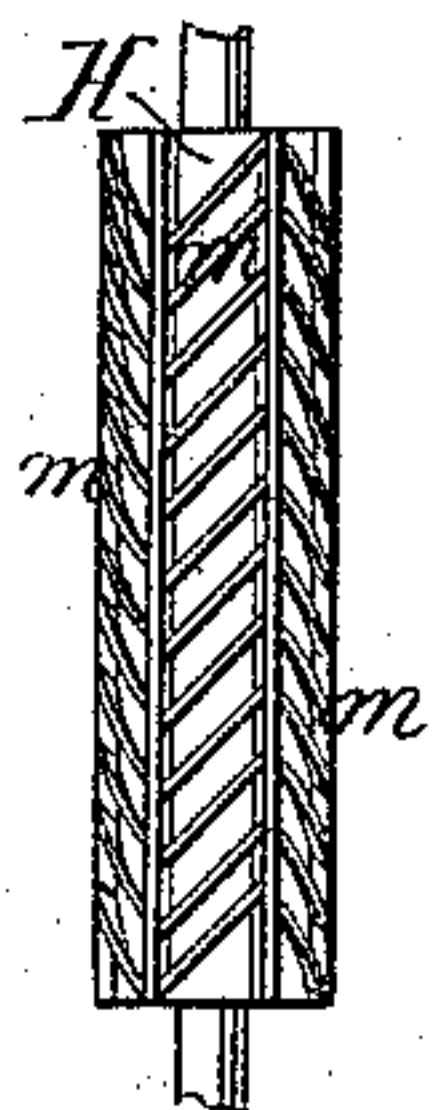


Fig. 6.



Fig. 5.



Witnesses;
Fred. Haynes
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United States Patent Office.

ROBERT J. CLAY, OF GREENPOINT, NEW YORK.

Letters Patent No. 87,635, dated March 9, 1869.

IMPROVEMENT IN COTTON-GIN.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, ROBERT J. CLAY, of Greenpoint, in the county of Kings, and State of New York, have invented a new and useful Improvement in Cotton-Gins, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming part of this specification, and in which—

Figure 1 represents a plan of a cotton-gin having my improvement applied to it;

Figures 2 and 3, opposite side views of the same; and

Figure 4, a vertical section thereof.

Figures 5 and 6 are longitudinal views of certain strippers, or clearers, which constitute my improvement.

Similar letters of reference indicate corresponding parts.

This, my improvement in cotton-gins, is also applicable to wool-burring and other like machines for cleansing fibrous or flocculent substances, but it will suffice here to describe it as used for ginning cotton.

The invention consists—

First, in a seed-stripper, or clearer, of a toothed, or corrugated form on its clearing-edge, and reciprocating in directions parallel to the axis of the revolving saw-cylinder, to which it is made to occupy a tangential position on the rear side thereof.

Secondly, the invention consists in a revolving clearer and spreader, arranged to lie parallel to the saw-cylinder, over the rear side thereof, and of varied cam-like formation on its face, by studding it with reverse oblique ribs, said device either being used separately or in combination with and over the reciprocating corrugated stripper previously named, according to the description of cotton or other material being worked.

Referring to the accompanying drawing—

A is the frame of the gin.

B, the breast into which the seed-cotton is thrown.

C, the seed-board, with grate, *a*, attached.

D, the saw-cylinder, rotated as indicated by arrow thereon, and of any suitable construction.

E is the usual or any suitable revolving cotton-stripping brush, and

F, the sliding mote-board.

G is a stripper, or clearer, of flat, plate-like construction, sharpened on its front, or advance edge, and set to occupy a tangential position to the saw-cylinder, on or over the off side of it, in close relationship thereto.

Its front or sharpened edge is toothed, or corrugated, and it has a reciprocating motion given to it in directions parallel to the axis of the saw-cylinder, or lengthwise across the face of the latter, which motion may be given to it by bevel-gear, *b c*, and a crank, or eccentric-pin, *d*, arranged to work in a slot, *e*, in the one end of the stripper.

This action of the stripper, combined with the rota-

tion of the saw-cylinder, effects the separation of the seeds and other impurities, which result is facilitated by the loosening and spreading of the cotton, without injury to its fibre, over the face of the saw-cylinder, through the reciprocating motion of the stripper, which, or the portion thereof that acts upon the cotton, may be made of wood, hide, or any suitable material.

To perfect such stripping-action, and to insure the delivery of the seeds, and prevent them from clogging the stripper G, I arrange, immediately over said stripper, a revolving clearer and spreader, H, having its axis of rotation parallel to the axis of the saw-cylinder, and formed or provided on its circumference with a series of oblique strips, *m*, lying in rows, which are longitudinal to said clearer, and the strips of one row arranged to occupy a reverse obliquity to the strips of an adjacent row, which gives a cam-like character, or action to such revolving clearer, by working and spreading the cotton to and fro across or over the saw-cylinder, in direction of its length, as the reversely-inclined strips *m*, of the several rows, catch it, which action loosens and spreads the cotton, without injury to its fibre; prevents draught of it more toward the one end of the saw-cylinder than the other, evenly spreading it over the face thereof, and rolls the seeds out of the cotton, thus serving most effectually, in conjunction with the stripper G, to gin the same, though, for some descriptions of cotton, the stripper G alone will suffice, while in others, the revolving clearer and spreader, H, only need be used.

The ribs, or stripping-edges, *m*, may be of any desired distance apart, and slope, and instead of having several in each longitudinal row, the same may consist of a series of reversely-inclined ribs, each of which extends from end to end of the cylinder on which it is arranged.

What is here claimed, and desired to be secured by Letters Patent, is—

1. The combination, with the saw-cylinder D, of the reciprocating corrugated stripper, or clearer, G, substantially as specified.

2. The combination, with the saw-cylinder D, of the revolving clearer and spreader H, formed or provided on its periphery with reversely-inclined stripping-ribs, or edges, *m*, essentially as specified.

3. The combination, with the saw-cylinder D, of the reciprocating corrugated stripper, or clearer, G, and the revolving clearer and spreader H, formed or provided on its periphery with reversely-inclined stripping-ribs, substantially as described.

ROBERT J. CLAY.

Witnesses:

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