I. W. Burch.

Cotton-Thinning Mach.

No. 95,422. Patented Oct. 5, 1869.

Fig: 1.

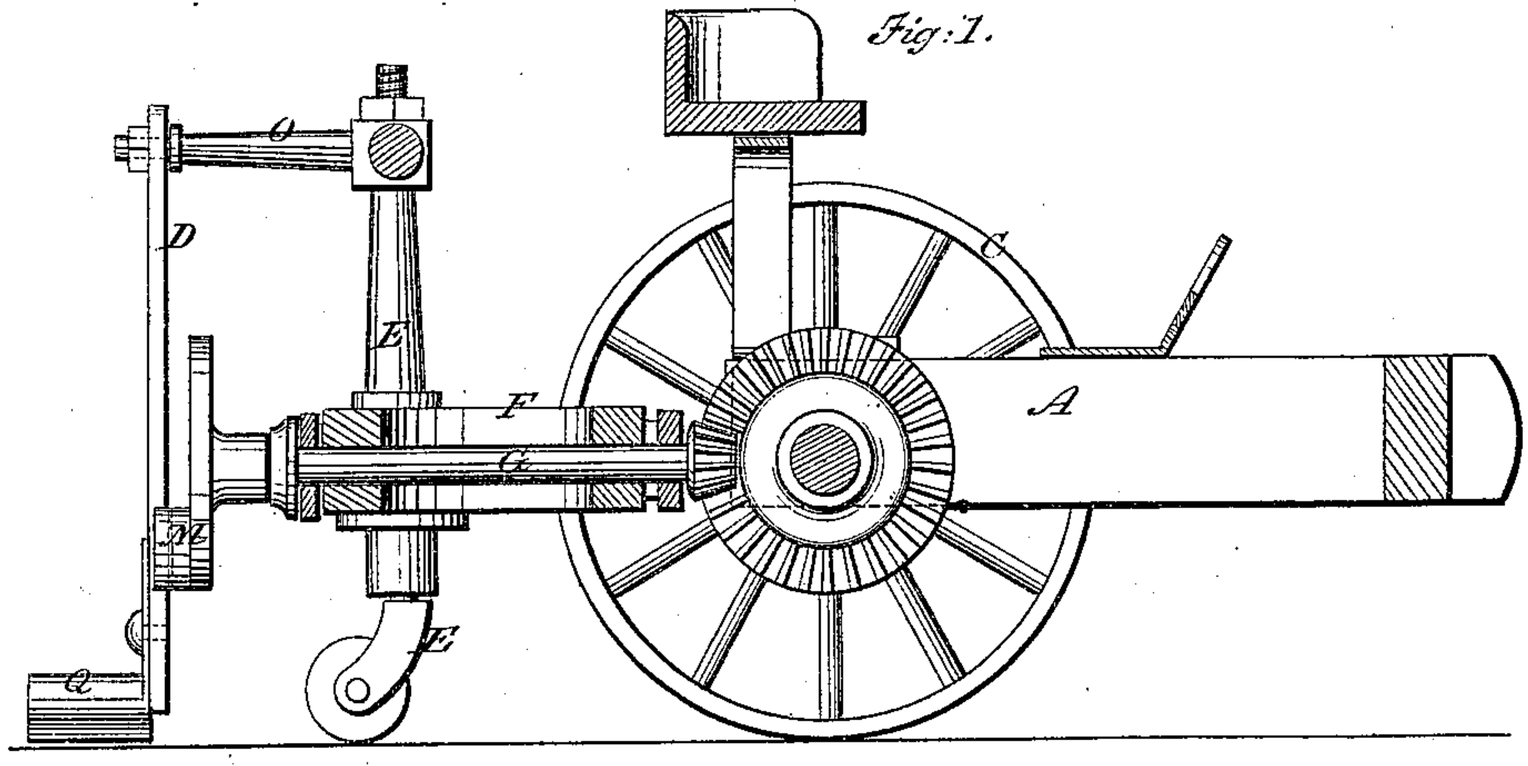


Fig: 2.

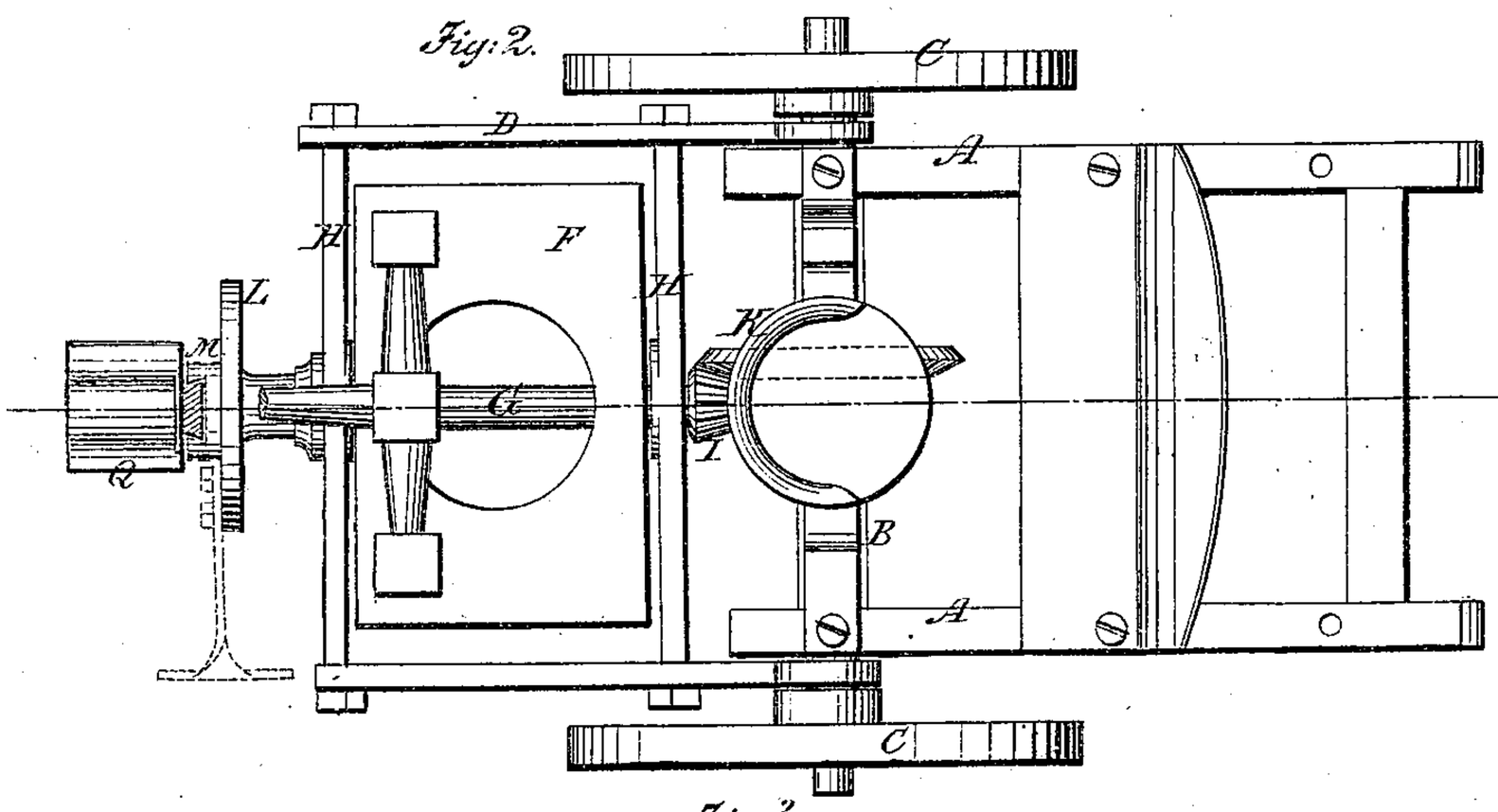
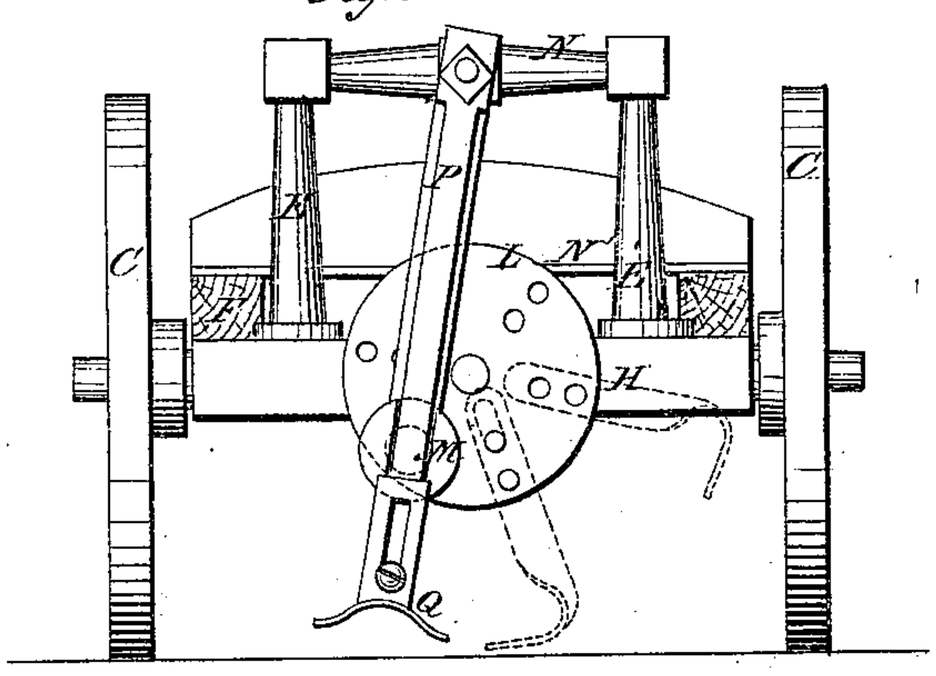


Fig: 3.



WITNESSES.

Chas. Nida.

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UNITED STATES PATENT OFFICE.

ISAAC W. BURCH, OF FAYETTE, MISSISSIPPI.

IMPROVEMENT IN COTTON-THINNING MACHINES.

Specification forming part of Letters Patent No. **95,422**, dated October 5, 1869.

To all whom it may concern:

Be it known that I, I. W. BURCH, of Fayette, in the county of Jefferson and State of Mississippi, have invented a new and Improved Cotton-Thinning Machine; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawings, forming a part of this specification.

This invention relates to improvements in machines for chopping out or thinning the cotton by cutting out spaces across the rows at intervals along the same.

The invention comprises an arrangement of devices for operating either a rotary cutter, of three or any other preferred number of curved blades projecting from a disk revolving transversely of the row, or a vibrating cutter working back and forth above the roll, the whole mounted on a suitable frame and wheels, and deriving motion from the axle of the said wheels by suitable gearing.

Figure 1 represents a longitudinal sectional elevation of my improved machine. Fig. 2 represents a plan view of the same, and Fig. 3 represents a rear view.

Similar letters of reference indicate corresponding parts.

A represents a strong frame of wood, mounted on an axle, B, of a pair of wheels, C; and D represents another frame, connected to the axle, so as to oscillate thereon. It projects rearward, and is provided with a pair of caster-wheels, E, projecting downward from a block or frame of wood, F, suspended within the frame D, centrally on a shaft, G, borne in the cross-bar H of the frame D, and gearing, by a beveled wheel, I, at its inner end, with a larger wheel, K, on the shaft B. The other end, projecting beyond the rear beam, H, supports a disk, L, whereon is pivoted a block, M, having a dovetailed groove across the end of it. The said disk is also adapted for the attachment of rotary cutters N′, as represented in dotted lines in Fig. 3. The posts E′ of the casters E rise considerably above the block or frame F, and support between them a cross-bar, N, from which projects rearward an arm, O, from the outer end of which a cutter-stock, P, is suspended, so as to vibrate. This stock is fitted to the groove in the end of the stud M, and supports at its lower end a two-edged cutter or chopper, Q, capable of cutting when moving in either direction. Motion being imparted to the shaft G and disk L by the forward movement of the machine, the block M will be carried around on the said disk while its own axis turns within it, leaving it free to work up and down on the stock P, at the same time imparting a vibrating motion to it across the row, whereby it will chop out and thin the said rows at intervals, as required. The caster-wheels E work on each side of the row, and guide the rear end of the frame D according to the inequalities of the ground. The block or frame F has a vibratory motion on the shaft G as the ground varies on either side. These vibrations have the effect to maintain the cutter in the proper relative position to the row. The said cutter G is made adjustable up or down the stock P for cutting more or less deeply.

I propose in some cases to substitute the rotary cutters N′ for this vibrating cutter, in which case I remove the stock P from the arm O and the guiding-block M.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. The combination, with the frame A, axle, and wheels C, of the vibrating frame H, rotary shaft G, operated as described, and the disk L, either arranged for the application of rotary cutters N′ or vibrating cutters, all substantially as specified.

2. The combination, with the frame D, and shaft G, of the block or frame F, posts E′, bar N, arm O, cutter-stock, and guiding-block M, all substantially as specified.

3. The combination, with the arm O, disk L, and grooved block M, of the cutter-stock and cutters, substantially as specified.

ISAAC W. BURCH.

Witnesses:

DAVID HARRISON,

WM. F. SCHWING.