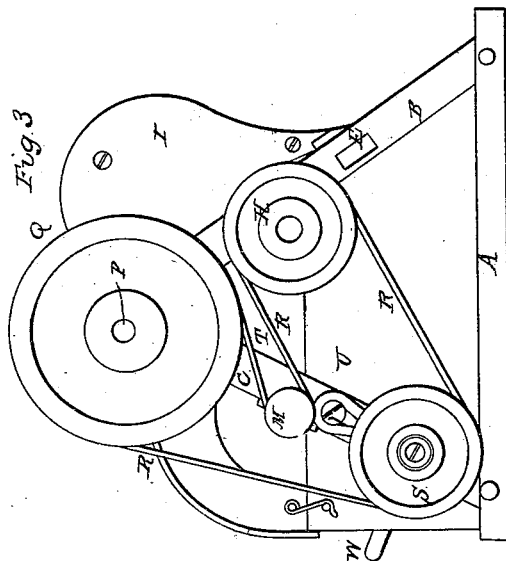
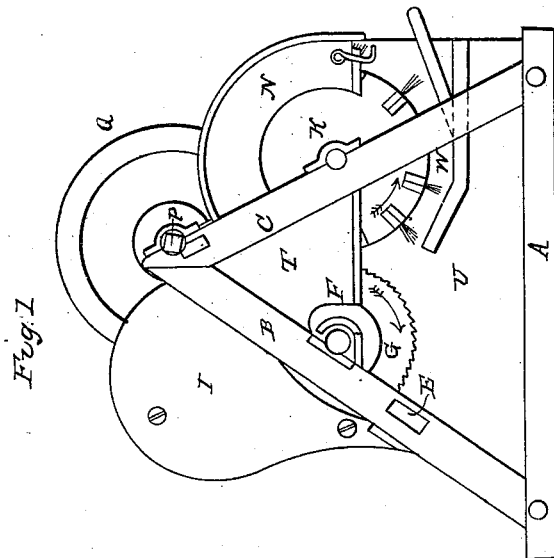


J. WATROUS, Jr.

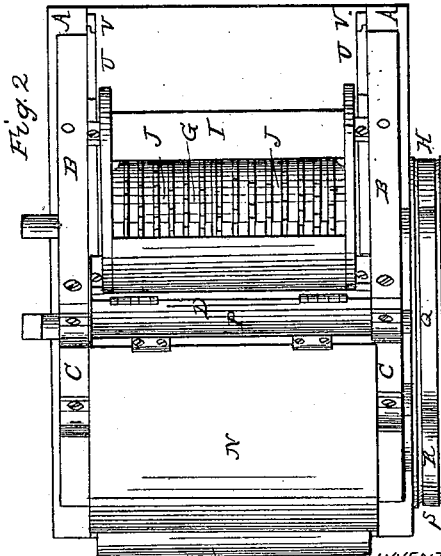
Cotton Gin.

No. 53,910.

Patented April 10, 1866.



WITNESSES
J. E. Dennis
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INVENTOR
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UNITED STATES PATENT OFFICE.

JOSEPH WATROUS, JR., OF MYSTIC RIVER, CONNECTICUT.

IMPROVEMENT IN COTTON-GINS.

Specification forming part of Letters Patent No. 53,910, dated April 10, 1866.

To all whom it may concern:

Be it known that I, JOSEPH WATROUS, JR., of Mystic River, New London county, State of Connecticut, have invented certain new and useful Improvements in Cotton-Gins; and I do hereby declare the following description and accompanying drawings are sufficient to enable any person skilled in the art or science to which it most nearly appertains to make and use my said invention or improvements without further invention or experiment.

The nature of my invention and improvements consists in making the deflecting-boards and side casings removable, so that they can be readily removed and applied.

In the accompanying drawings, Figure 1 is an elevation of one side of a cotton-gin with my improvements. Fig. 2 is a top view, and Fig. 3 an elevation showing the arrangement of the pulleys.

In these drawings, A A are the sills, into which sills the inclined standards B B and C C are framed and fastened. The upper ends of these standards B and C are fitted and firmly fastened together to form two triangular side frames, which are connected and held a proper distance apart by the bars D and E, making a strong frame adapted to receive, hold, and support the other parts of the machine.

The journal-boxes F are fastened to the under sides of the standards B B for the shaft of the saw-cylinder G to turn in, and the pulley H is fastened to the saw-cylinder shaft to turn it. This saw-cylinder may be made in the usual or common mode of making such cylinders or otherwise.

The feeding-box I is made in form shown in the drawings, and provided with a breast of ribs, J J, made in the common form or otherwise, through which the cotton is drawn by the saws when it is separated from the seed. This feed-box I is hinged to the bar D, so that it may be raised up to sharpen or adjust the saws, and when it is let down the lower end of the box rests on the bar E.

The journal-boxes of the fan or brush shaft K are fastened on the top of the standards C C, as shown in Fig. 1, and the fan-shaft K has the pulley M fastened to it to turn it by a band.

The heads of the brush or fan cylinder should be made open, and each of the fan ribs or bars should be armed with bristles to brush the cotton from the saws, each of the cylinders being turned in the direction indicated by the arrows, and the brushes, being moved much faster than the saws, take the cotton from the saws and throw it out of the rear of the machine separate from the cotton-seed.

The case N of the brush-cylinder is made in the form shown in the drawings and hinged to the bar D, so that it can be raised up to inspect the brushes.

The journal-boxes for the pulley-shaft P are fastened to the upper ends of the standards C C. One end of this shaft P is provided with a fast and loose pulley, for a band from some moving power to operate the machine by the pulley Q on the opposite end of the shaft, which carries the band R, which runs around the stud-pulley S, then around the pulley H on the saw-shaft and the pulley M on the brush-shaft, and back to the pulley Q, as shown in the drawings, Fig. 3, thus making one and the same band drive both the brush and saw cylinders.

The upper portion of the side casing, T, is fastened to the standards B and C, and has a rabbet in its lower edge to receive the upper edge of the lower casing, U, which is fitted to the rabbet in the upper casing and the rabbet in the cleat V, fastened to the sill A, so that these lower side casings can be readily removed and replaced whenever it is desirable to do so, and the casing of the brush-cylinder is hooked down to the casings U, as shown in Fig. 3. The lower casings, U, are grooved to receive the ends of the deflecting-boards W under the brush-cylinder.

The lower inside corners of the sills A may be rabbeted for the ends of the bottom boarding of the gin.

I claim—

In combination with the side frames, the removable side casings and deflecting-boards, arranged as described.

JOSEPH WATROUS, JR.

Witnesses:

LEVI WATROUS,
HIRAM APPELMAN.