

J. L. COKER.  
Cotton-Cleaner.

No. 133,761.

Patented Dec. 10, 1872.

Fig. 1.

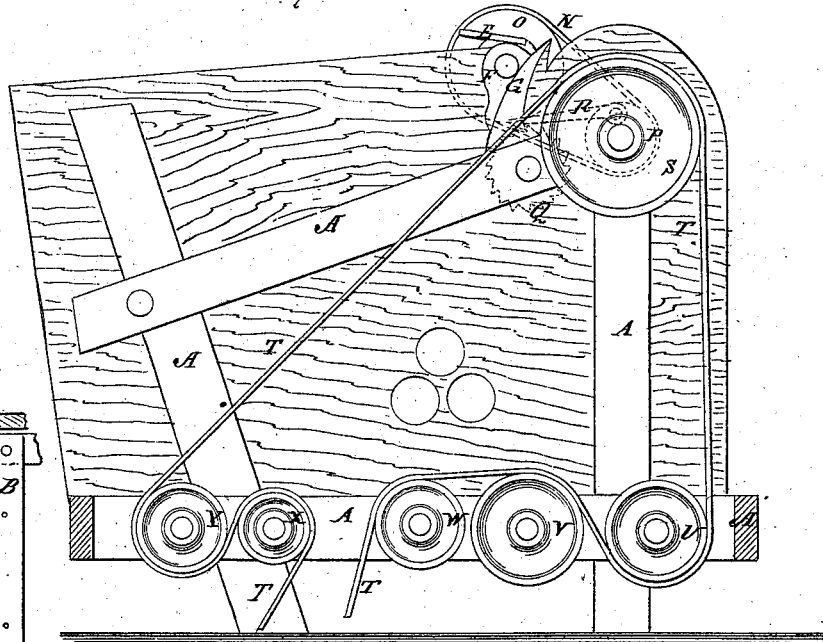


Fig. 3.

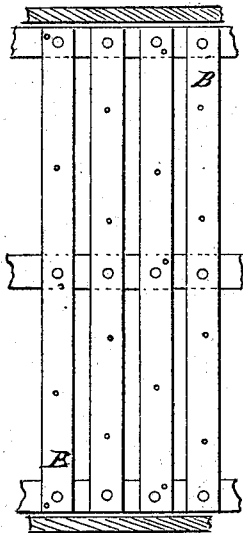
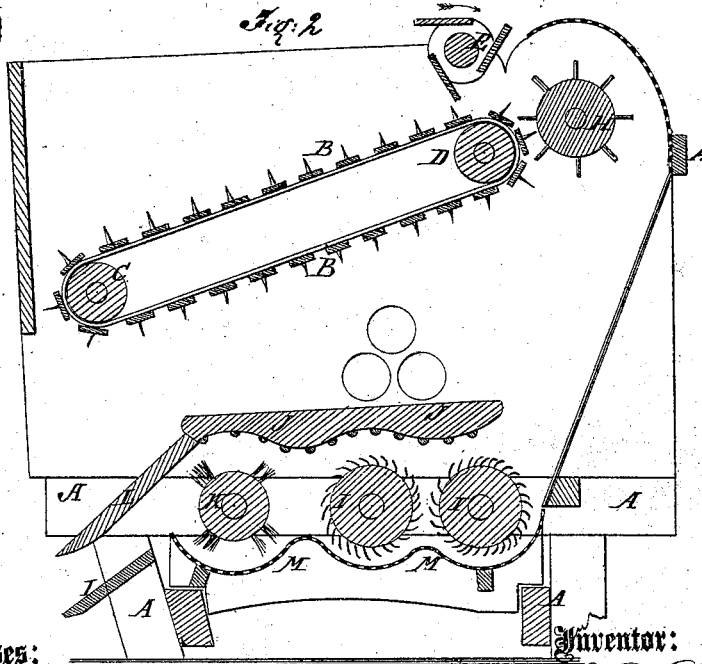


Fig. 2.



Witnesses:

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# UNITED STATES PATENT OFFICE.

JAMES L. COKER, OF HARTSVILLE, SOUTH CAROLINA.

## IMPROVEMENT IN COTTON-CLEANERS.

Specification forming part of Letters Patent No. 133,761, dated December 10, 1872.

*To all whom it may concern:*

Be it known that I, JAMES L. COKER, of Hartsville, in the county of Darlington and State of South Carolina, have invented a new and useful Improvement in Cleaner and Feeder for Cotton-Gins, of which the following is a specification:

Figure 1 is a side view of my improved machine, part of the frame-work being removed to show the pulleys. Fig. 2 is a detail vertical section of the same. Fig. 3 is a detail view of a portion of the feeder or carrier.

Similar letters of reference indicate corresponding parts.

My invention has for its object to furnish an improved attachment for cotton-gins for cleaning the cotton and feeding it to the gin, and which shall be simple in construction and effective in operation, removing nails, sand, and other impurities from the cotton, and feeding it uniformly to the gin; and it consists in the construction and combination of various parts of the machine, as hereinafter more fully described.

A is the frame of the machine, the two sides and the upper part of the front end of which are closely incased. The upper part of the top in the rear of the sweeper and the rear end are inclosed with wires or slats inclining inward to allow sand, nails, &c., to drop through. The upper front part of the machine is left open at the top to serve as a hopper to receive the cotton, which rests upon the endless apron B, which is formed by attaching cross-slats to bands or belts which pass around the rollers C D. The slats of the endless apron B are provided with points to take hold of the cotton and carry it forward. The endless apron B may be otherwise made, if desired. The roller C is placed at a lower level than the roller D, so that the cotton may be carried upward. The endless apron B may be replaced by a large cylinder provided with points, by which the same upward movement of the cotton may be obtained. E is the sweeper, which is formed by attaching knives or plates in an inclined position, as shown in Figs. 1 and 2, to a shaft. The journals of the sweeper E revolve in bearings F, which are adjustably attached to arms or brackets G attached to the frame A by bolts, which pass through holes in the bearings F and enter

slots in the brackets G, so that the sweeper may be adjusted to allow more or less cotton to pass through to the gin, as may be desired. The sweeper E is revolved in such a way, as indicated by arrow 1, as to push the cotton back from the upper end of the carrier and allow only the desired amount of cotton to be carried to the beater. H is the beater, which is formed by attaching numerous teeth to a cylinder, which receives the cotton from the carrier B and knocks out the sand, nails, and other impurities which fall through the slatted or wire back of the machine while the cotton slides down said back to the cleaning-cylinders I, one or more of which are used, and the journals of which revolve in bearings in the frame A of the machine. The cylinders I are covered with leather having wire or card teeth attached to it, or the card-teeth may be attached directly to the said cylinder. The cylinders further clean the cotton by shaking it and rubbing it against the board J secured above the said cylinders, and which is concaved and corrugated, as shown in Fig. 2. K is a brush-cylinder, which takes the cotton from the last cleaning-cylinder I and discharges it between the guide boards or aprons L to the gin. Beneath the cleaning-cylinders I and the brush-cylinder K is placed a bottom, M, of wire or slats, to allow sand, nails, &c., to drop through, and to receive the cleanings and large substances that may pass through the machine to this point, and which may be removed by drawing out the said bottom M, which is made detachable for this purpose. The sweeper E is driven from the beater H by the belt N, which passes around a pulley, O, attached to the projecting end of the journal of the said sweeper E and around the pulley P attached to the projecting end of the journal of the said beater H. The sweeper E may be otherwise driven, if desired. To the projecting end of the journal of the upper roller of the carrier B is attached the ratchet-wheel Q, upon the teeth of which the engaging end of the pawl R takes hold to operate the said carrier. The pawl R is pivoted to a crank or eccentric pin attached to the pulley P, so that the said carrier may be operated from the said beater. To the projecting journal, at the other end of the beater H, is attached a pulley, S, around which passes

a belt, T. The belt T also passes around the loose pulley U pivoted to the frame A, over the pulleys V W X attached to the projecting ends of the journals of the cleaning-cylinders I I, and the brush-cylinder K around the loose pulley Y and back to the pulley S. The belt T passes down in a loop between the pulleys W X and passes around the driving shaft or pulley, which may be connected with the gin or with the power that drives the gin.

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

The carrier B, sweep E, beater H, cleaning-rolls I I, brush K, and concave J, all arranged in a casing perforated as described.

JAMES L. COKER.

Witnesses:

JAMES M. BROWN,

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