Williamson Goodwin & Sinclair D.G. Niles

Machine for Picking Cotton

PATENTED MAR 28 1871

113159

fig: 1.

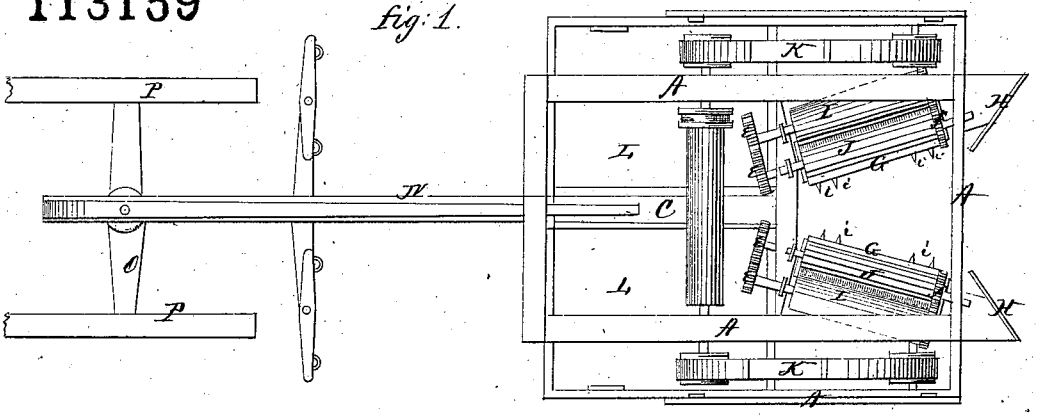


fig: 2

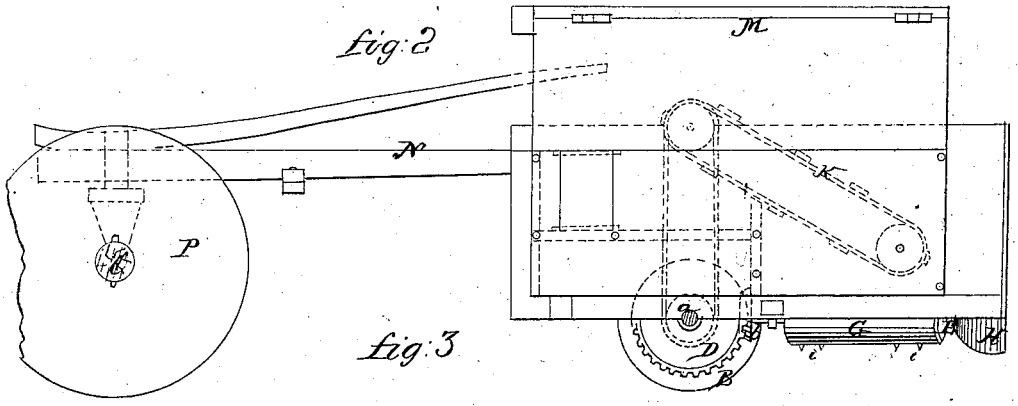
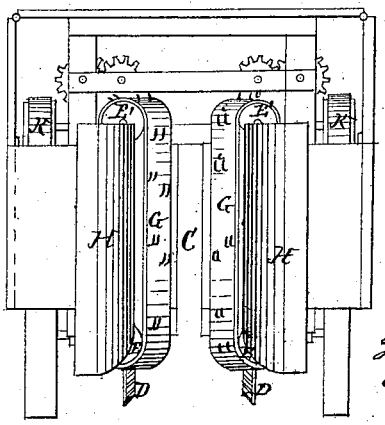


fig: 3



Witnesses.

C. L. Evers

A. A. Seaman

Inventor.

Williamson Goodwin

Sinclair D. G. Niles

per

Alexander & Mason

Attys

United States Patent Office.

WILLIAMSON GOODWIN AND SINCLAIR D. G. NILES, OF HELENA, ARKANSAS.

Letters Patent No. 113,159, dated March 28, 1871.

IMPROVEMENT IN COTTON-PICKERS.

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

To all whom it may concern:

Be it known that we, WILLIAMSON GOODWIN and SINCLAIR D. G. NILES, of Helena, in the county of Phillips and in the State of Arkansas, have invented certain new and useful Improvements in Machine for Picking Cotton; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of our invention consists in the construction and arrangement of a "machine for picking cotton," as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which our invention appertains to make and use the same, we will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view;

Figure 2, a side elevation; and

Figure 3, a front elevation of our machine.

A represents the frame of our machine, resting and moving upon wheels B B.

These wheels are placed upon and secured to separate axles *a a*, for the reason that through the center of the machine is a passage, C, and if there was only one axle there would be an obstruction across said passage.

Upon each axle *a* is secured a bevel cog-wheel, D, which gears with a pinion, *b*, upon the end of a roller, E, having its bearings in the lower part of the machine.

The two rollers E E are placed so that their front ends are further apart than the rear ends, and these rear ends being near the mouth of the passage C above-mentioned.

A suitable distance above and parallel with the rollers E E are placed other rollers, E' E', and a wide belt, G, of rubber or other suitable material, is passed around each set of rollers; that is, around the rollers E E', on each side of the machine. When the machine is in motion it will thus be seen that the belts G G move perpendicularly up and down.

On these belts are placed teeth *i i*, of any number desired, and at any suitable distance apart. These teeth are curved upward, at right or any other angles as may be deemed most suitable for the purposes.

In front of the belts G G, on the machine, are inclined shields or projections H H, to guide or conduct the cotton into the machine between said belts, where the cotton is picked off by the teeth *i i*, and carried upward over the top rollers E' E'. The cotton-stalks, as the machine moves forward, pass through the passage C in the machine without bending.

Above and back of each roller E' is placed a brush-cylinder, I, having any desired number of brushes running longitudinally and projecting from its outer surface.

This cylinder is revolved by means of the gears *e e* from the inner end of the roller E'.

Parallel with the brush-cylinder I, and on the inner side thereof, is placed a fluted cylinder, J, which receives its motion through the gears *f f* from the outer end of the brush-cylinder.

As the picked cotton is carried up by the belts G G the fluted cylinders J J, revolving in the opposite direction, strike any pieces of stalk or twigs that may have been carried up with the cotton and knock them down, while the cotton is, by means of the brush-cylinders I, which revolve in the same direction as the belts, brushed off from the teeth *i i*, and allowed to fall down upon an endless apron, K, in each side of the machine.

These aprons may have cross-slats, as shown in fig. 2, or, if desired, may be without them. They are placed around rollers or pulleys, so as to move upward and backward, conducting or carrying the cotton into a box, L, on each side, at the rear end of the machine.

These aprons may be revolved either by a belt from one of the axles *a*, communicating motion to a shaft on which the apron-rollers are placed, or by bevel cog-wheels from the inner ends of the upper rollers E', or in any other suitable and convenient manner.

When the boxes L L are filled the cotton is removed through side doors in the same.

The entire machine is covered by a hinged cover, M, as shown, and it is propelled by the team from behind.

N is the tongue, adjusted in any desired manner within the passage C, and its rear end resting upon an axle, O, with wheels P P.

Suitable double and single-trees are attached to the tongue, as shown.

Instead of having the toothed belts G G working perpendicularly they may be arranged to work horizontally, in which case the brush and fluted cylinders must be arranged at their inner ends instead of on top.

In light cotton we may use only one upright roller on each side, with the toothed belt wrapped around the same, and the brush and fluted cylinders also in an upright position.

Having thus fully described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

1. The combination of the toothed belts G G, brush-cylinders I I, and the fluted cylinders J J, all constructed and arranged substantially as and for the purposes herein set forth.

2. The frame A, with passage C, in combination with the toothed belts G G, guides H H, brush-cylinders I I, fluted cylinders J J, aprons K K, boxes L L, and hinged cover M, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that we claim the foregoing we have hereunto set our hands this 18th day of February 1871.

WILLIAMSON GOODWIN.
SINCLAIR D. G. NILES.

Witnesses:
A. N. MARR,
C. L. EVERTS.