

Z. B. SIMS.

Improvement in Cotton-Pickers.

No. 131,124.

Patented Sep. 3, 1872.

Fig. 1.

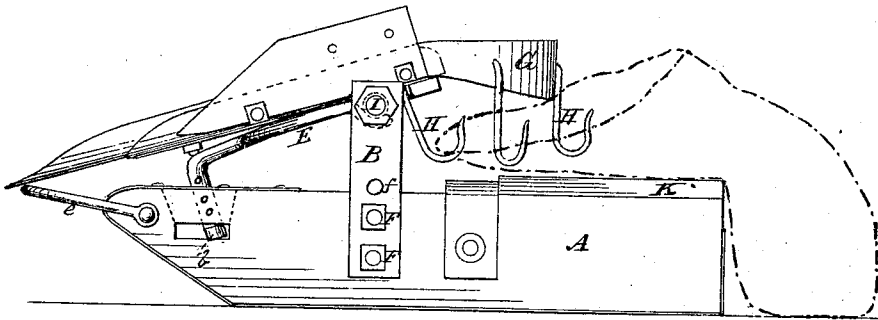


Fig. 2.

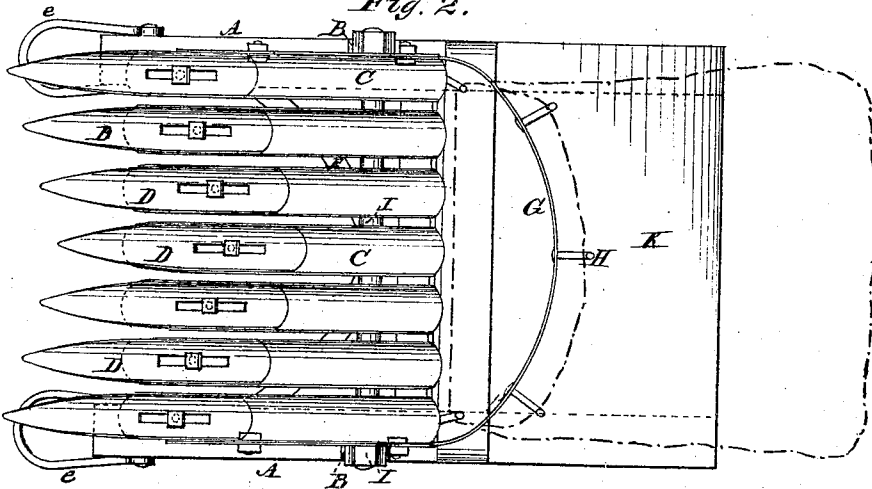
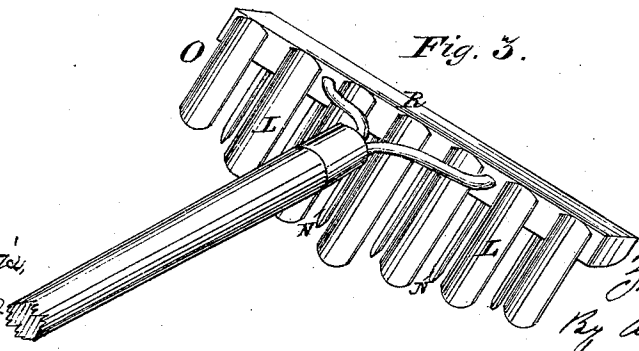


Fig. 3.



Witnesses:

A. L. Morris  
Wm. J. Peyton

Inventor:

Z. B. Sims.

By Atty.

James L. Morris

# UNITED STATES PATENT OFFICE.

ZACHARIAH B. SIMS, OF BONHAM, TEXAS.

## IMPROVEMENT IN COTTON-PICKERS.

Specification forming part of Letters Patent No. 131,124, dated September 3, 1872.

### SPECIFICATION.

Be it known that I, ZACHARIAH B. SIMS, of Bonham, in the county of Fannin and State of Texas, have invented certain new and useful Improvements in Cotton-Boll Pickers; and I do hereby declare that the following is a full, clear, and exact description thereof, that will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawing and to the letters of reference marked thereon, which form a part of this specification.

This invention has for its object the construction of cotton-boll picker, which shall with certainty and economy gather the bolls of the cotton-plant with greater speed than can be attained by mere hand labor; and it consists in the novel construction of the detailed parts, and their combination, into a complete machine, as more fully hereinafter set forth.

Referring to the drawing, Figure 1 is a side view. Fig. 2 is a top or plan view, and Fig. 3 is a view of the hand-rake detached from the remainder of the machine.

The same letters indicate similar parts in all the figures.

A A are ordinary sled-runners, which serve to support at their rear end the platform K and upon their front half the working parts of the picker. While ordinarily I use these runners, I wish it understood that I do not confine myself thereto, as under certain conditions small wheels or rollers are either preferable or can be used as well. From about the center of these runners the adjustable supports B extend upwardly. These supports take into recesses extending from the top to the bottom of the runners, and are fastened to the runners by the bolts F. As the supports are provided with a series of bolt-holes, *f*, it will be seen that they can be readily adjusted to any desired height. Extending across from the top of these supports is the bar I, whose ends journal in bearings furnished by the supports B B, by which it is supported. Bolted or otherwise securely attached to this journalled cross-bar is the row of picker-teeth, each being composed of two pieces, C and D. They are made semicircular in cross-section with the concave side uppermost, and of suitable

length and width. As before stated, each tooth is composed of two pieces, the lower or end one, D, being pointed; in the bottom of each a longitudinal slot is cut, through which the headed bolt *a* takes, fastening the two pieces and yet allowing longitudinal adjustment of the two parts. Into recesses or mortises in the front ends of the runners take the bars E E, one on each side, which are secured to the runners by the spring-key *b* of ordinary construction, the bars E being provided with several holes so as to permit of vertical adjustment. These bars are bent backward and diagonally toward the center of the machine, uniting with the cross-bar I at about its center, serving as supports for the picker-teeth. From the rear end of one of the inside teeth to the other extends the semicircular band G, from which depend the hooks H, similar hooks also depending from the rear ends of the teeth at suitable distances. Upon these hooks is suspended a bag or other receptacle for the cotton gathered. O represents the hand-rake having a handle and a cross-piece, R. From this cross-piece extend the concave teeth L, slightly smaller than the picker-teeth C and arranged upon the rake at the same distance apart as the picker-teeth in the machine. These teeth L are rounded at their outer ends. Between these teeth are placed the plain round teeth N.

In operating the machine it is drawn along by any suitable power attached to staples *e e*. So drawn along, the teeth CD come in contact with the cotton-plants. An attendant standing upon the platform K manipulates the rake, pulling it back from the pivoted ends to the rear, the teeth taking in the concaves of the picker-teeth and preventing the plain teeth, which take between the picker-teeth, from passing beneath and stopping against the bracing and cross-pieces. By this means the bolls are severed or pulled from the plant and raked back into the bag or receptacle suspended from the hooks. The points as before shown can be adjusted; they may be even across, so as to operate at the same height; or they may form a concave or convex line, as shown in dotted lines, Fig. 2. They may be raised or lowered at either the back or front ends.

The advantage of this adjustability is that it enables any particular part of the crop to be picked accordingly as the line of the points is concave or convex, while the vertical adjustment provides for differences in the height of the crop—a great desideratum as the average height of the crop varies with different seasons.

The machine may be of any width. As shown, it is intended to pick one row at a time. It may be widened for two rows by either adding a third runner; or by using two runners with longer supporting and cross-bars, a proportionate number of picker-teeth being added.

What I claim is—

1. The adjustable concave picker-teeth, composed of the two pieces C and D, united substantially as described.

2. In combination with the runners A A, or equivalents, the adjustable supports B B and E and cross-bar I, substantially as specified.

3. In combination with the adjustable picker-teeth C D, I claim the semicircular bar G, bag-hooks H, supports A A, platform K, uprights B B, and bar E, all arranged and operating substantially as described.

4. The rake O composed of the head R, concave teeth L, and cleaning-teeth N, for operating in connection with the concave picker-teeth, substantially as described.

In testimony that I claim the foregoing, I have hereunto set my hand.

ZACHARIAH B. SIMS.

Witnesses:

FRANKLIN D. PINER,  
MOSES W. BLEDSOE.