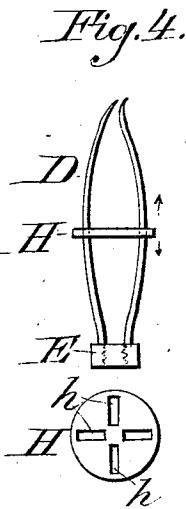


No. 242,560.

Patented June 7, 1881.



Inventor:
Daniel Ruggles.

UNITED STATES PATENT OFFICE.

DANIEL RUGGLES, OF FREDERICKSBURG, ASSIGNOR TO EDWARD S. RUGGLES, OF FRIEDLAND, VIRGINIA.

COTTON-PICKER.

SPECIFICATION forming part of Letters Patent No. 242,560, dated June 7, 1881.

Application filed March 2, 1881. (No model.)

To all whom it may concern:

Be it known that I, DANIEL RUGGLES, a citizen of the United States, residing at the city of Fredericksburg, in the county of Spottsylvania and State of Virginia, have invented a new and useful Cotton-Picker, or machine for picking, extracting, and harvesting lint-cotton from the boll or capsule when matured and ripe, of which the following is a specification.

My invention consists of a lint-cotton picker, as a machine for automatic action, and as a substitute or to supplement the human hand in picking and gathering lint-cotton from the cotton-boll in the field, with a view of facilitating harvesting. I accomplish these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 represents a longitudinal section of the entire machine. Fig. 2 is a longitudinal elevation of a grappling-claw. Fig. 3 is an end view of the revolving disk, with its cap. Fig. 4 shows a modified form of the screw or fork, with its disk.

The same letter refers to corresponding parts of the machine.

A is a hollow cylinder, of any required length and diameter, admitting of sectional extension.

B is a piston-rod, admitting also of sectional extension, carrying a spiral spring, *a*, and both contained within the cylinder, revolving freely in it. The piston-rod carries the slide C, in which it revolves between two washers pinned to the rod. Said slide has slotted projecting arms *c c*, which are pinned to the slotted grappling-claws F F at G G, admitting of movement in the slots as the piston-rod is carried forward and back within the cylinder, bearing the slide C with it, on which one end of the spiral spring rests, while the other end is attached to the piston-rod, so as to close and extend with it.

F F are two grappling-claws with slots G G, pivoted fulcrums *f f*, made springs at *b b*, closing and grasping at *e*, when the piston-rod presses forward the slide C.

D is a screw or fork, screwed to the piston-rod at E, and projecting its prongs through the orifices *h h* in a revolving disk, H, fastened

by a cap, I, and is plunged by the spiral spring into the cotton-boll *e*, while held by the grappling-claws, and extracts the cotton when withdrawn, the disk sweeping it off, and it drops into the netting *d*, while the grappling-claws open again. *i* represents a cutter attachment for the claws.

The manner of operating and using my invention is as follows: Grasp the cylinder with the left hand and the piston-rod with the right; press with the spiral spring and carry forward the slide C as a wedge, closing the grappling-claws F F upon the cotton-boll *e*, into which the lint screw or fork plunges at the same time with a revolving motion, and by revolution extracts the lint-cotton from the cotton-boll; then withdraw it by the piston-rod toward the disk H, where it is swept or discharged from the prongs of the lint screw or fork as they are withdrawn in the orifices *h h*, with their points still projecting slightly through the disk, while the lint-cotton drops into the small netting *d*, or other receptacle. The grappling-claws open at the same time and are adjusted for closing on another cotton-boll.

Without the cotton-lint screw or fork the machine is adapted for picking fruit.

I claim as my invention and desire to secure by Letters Patent—

1. The combination of a hollow cylinder, A, containing a rotating and revolving piston-rod, B, provided with a spiral spring, *a*, operating a rotating screw or fork, D, a revolving disk, H *h*, fastened by a cap, I, at the end H of the cylinder, and slide C, with slotted arms *c c*, connected by pins *g g* with slots G G in the grappling-claws F F, pivoted at *f f* as fulcrums, made springs at *b b*, and operated as hereinbefore described.

2. The combination of a hollow cylinder, A, containing a revolving and reciprocating piston-rod, B, provided with a spiral spring, *a*, operating a rotating screw or fork, as a hand cotton-picker, to extract cotton from the cotton-boll *e*, with a rotating disk, H *h*, held by the cap I, with a netting, *d*, to receive the cotton, the grappling-claws F F, made springs at *b b*, and pivoted as levers, with fulcrums at *f f*, for opening, closing, and grasping the cot-

ton-boll, the slide C *c c*, in which the piston-rod revolves, operating substantially as hereinbefore described.

3. The combination of a hollow cylinder, A,
5 a revolving and reciprocating piston-rod, B,
a spiral spring, *a*, grappling-claws FF, pivoted
at fulcrums *ff*, springs at *b b*, connected at
the slots G G with the slide C *c c*, which

govern the motions and action of the grappling-claws FF, with their cutter attachments 10
i, operating in combination substantially as
hereinbefore described.

DANIEL RUGGLES.

Witnesses:

JOHN C. TASKER,

F. H. SCHOTT.