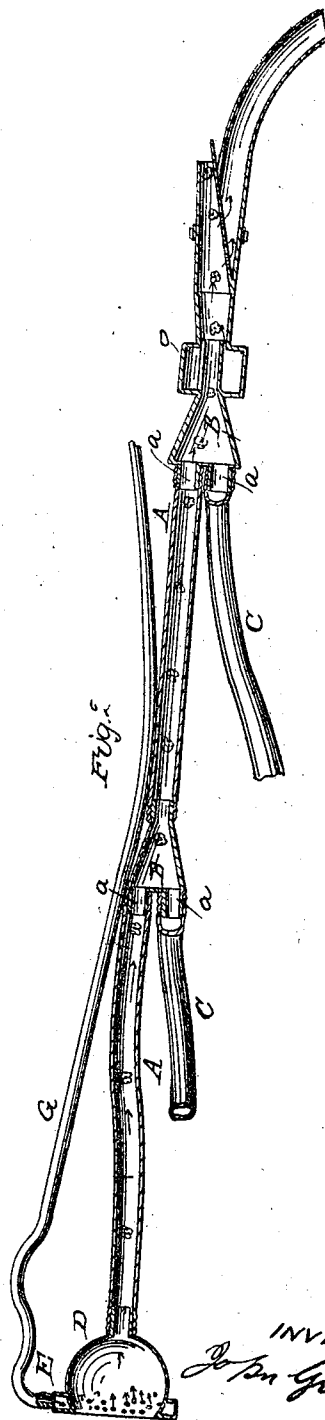
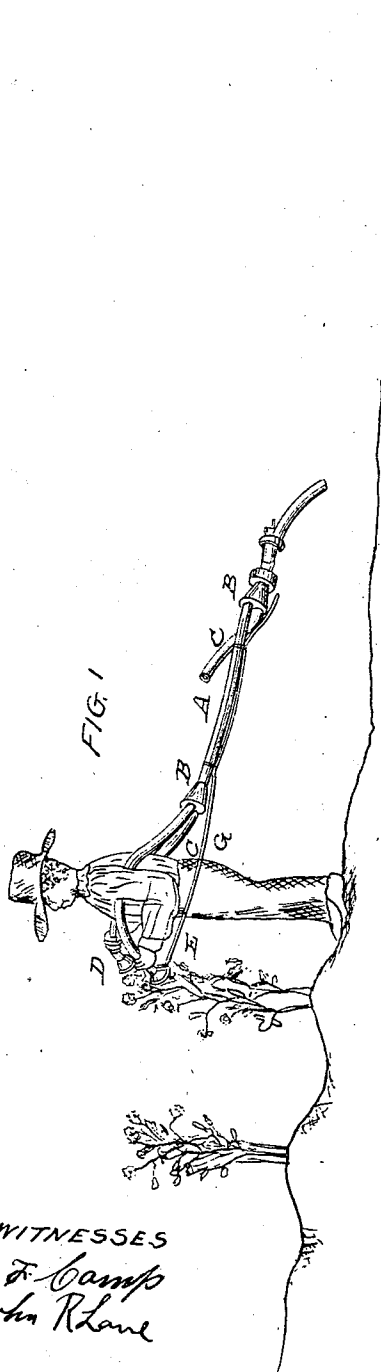


J. GRIFFIN.
Cotton Harvester.

No. 26,180.

Patented Nov. 22, 1859.



UNITED STATES PATENT OFFICE.

JNO. GRIFFIN, OF LOUISVILLE, KENTUCKY.

IMPROVEMENT IN COTTON-HARVESTERS.

Specification forming part of Letters Patent No. 26,180, dated November 22, 1859.

To all whom it may concern:

Be it known that I, JOHN GRIFFIN, of Louisville, in the county of Jefferson and State of Kentucky, have invented a new and Improved Cotton-Harvesting Device; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a view of my invention applied to its work. Fig. 2 is a longitudinal central section of the same.

Similar letters of reference indicate corresponding parts in the two figures.

This invention relates to an improvement on a machine for picking or harvesting cotton by steam, for which Letters Patent were granted to me bearing date March 8, 1859.

The object of the within-described invention is to economize in the application of the power used or expended in the operation of the machine. This is effected by a novel arrangement hereinafter described, whereby an auxiliary or helping force or power is obtained for detaching the cotton from the bolls.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

A represents an exhaust-tube, which should be of an elastic or flexible substance in order to admit of a facile manipulation of the same in applying the device to the bolls. This tube may be formed of several parts connected by conical joints B, in order to admit of the ready attachment of branch tubes C. These conical joints are simply tubes provided at one end with two teats, *a*, in order to allow two tubes to be attached, one tube being attached to the back part of each.

To the outer end of the tube A, and also to the end of each branch C, a semi-spherical or other suitable-shaped cap, D, is attached. These caps may be of metal, and they are encompassed at their outer ends by annular chambers E, which communicate with the interior of the caps D by perforations *b*, which are made in a spiral line, as shown in Fig. 2, and which extend entirely around the inner sides of the caps.

The back end of the tube A is connected to and communicates with a steam-exhaust chamber, O, which may be arranged in any proper way—the same, for instance, as shown in the former patent granted to me and previously alluded to; or the tube A may be attached to a chamber, through which a current of air is

forced rapidly in order to produce a suction or draw in the tubes A C—in short, a suction may be produced in the tubes A C by any suitable means.

To the annular chamber E of each cap D a tube, G, is attached. These tubes communicate at their inner ends with a steam or compressed-air chamber, so that steam or air will be forced through the perforations into the caps and toward their back ends, as indicated by the arrows in Fig. 2, the perforations being made obliquely through the sides of the caps to permit such result.

The operation is as follows: One or more operators may be employed, according to the number of branch tubes used. Each operator may hold two caps, presenting one with each hand to the bolls, the cotton from which is extracted by the suction in the tubes, in addition to the force exerted against it by the steam or air which is ejected through the perforations *b*. This latter auxiliary force in detaching the cotton from the bolls is important, for after the bolls are once detached a comparatively small amount of pressure only is required to force the cotton through the tubes into the receptacle prepared to receive it, and to which the apparatus is attached. By this auxiliary force or power, therefore, a smaller pressure, and consequently a less perfect vacuum, is required in A, and a considerable saving will be effected in the operation of the machine. The object of having the perforations *b* in a spiral line is to effect a gradual detachment of the cotton from the bolls as the caps are placed over them, and thereby guard against the choking or clogging of the tubes.

I do not claim a flexible suction-tube connected with a cotton-receptacle and arranged so as to pick or gather cotton from the bolls, for such device has been used, and may be seen in the patent before alluded to, and dated March 8, 1859; but,

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

The employment or use of annular chambers E, communicating with the caps D of the suction tube or tubes A C by means of perforations *b*, and communicating with a steam or air chamber by means of flexible tubes G, substantially as and for the purpose set forth.

JOHN GRIFFIN.

Witnesses:

B. F. CAMP,
JOHN K. LANE.