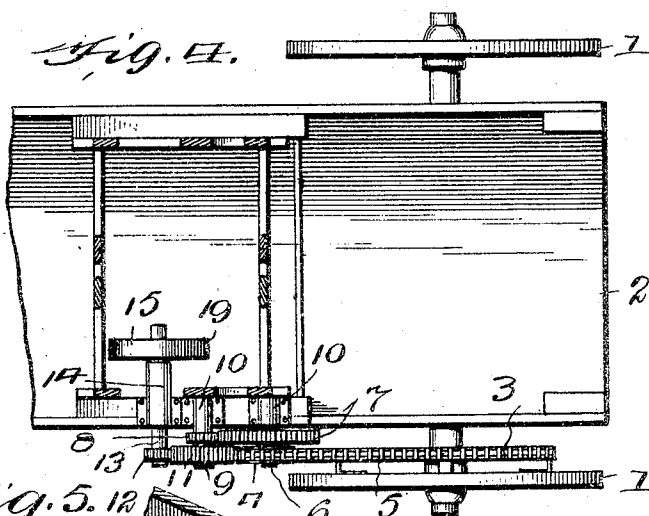
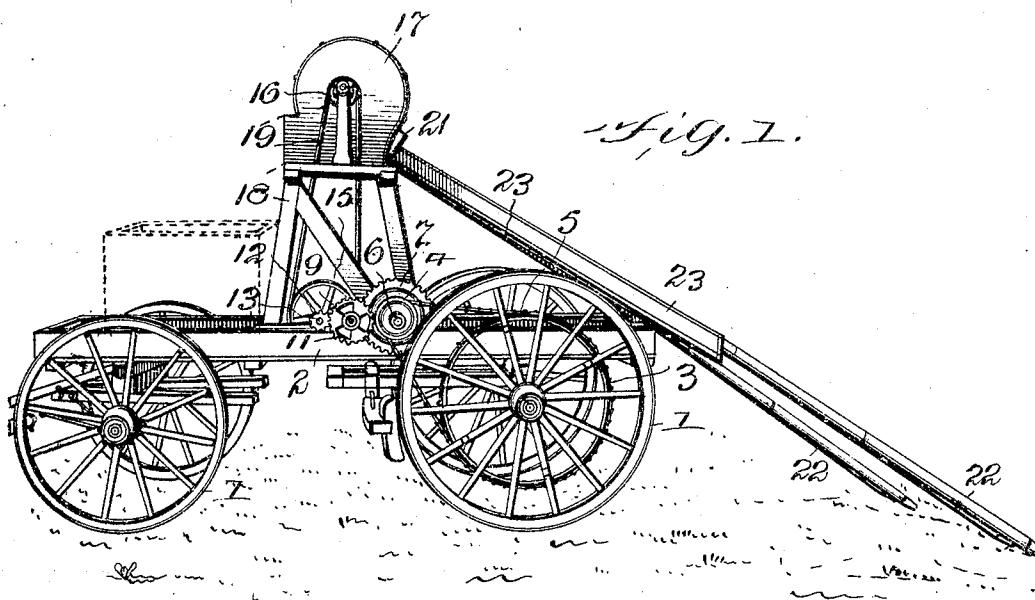


No. 779,129.

PATENTED JAN. 3, 1905.

J. N. McEACHERN.
COTTON PICKING MACHINE.
APPLICATION FILED MAY 3, 1904.

2 SHEETS—SHEET 1.



Witnesses
H. C. Barry.
Grace Gould

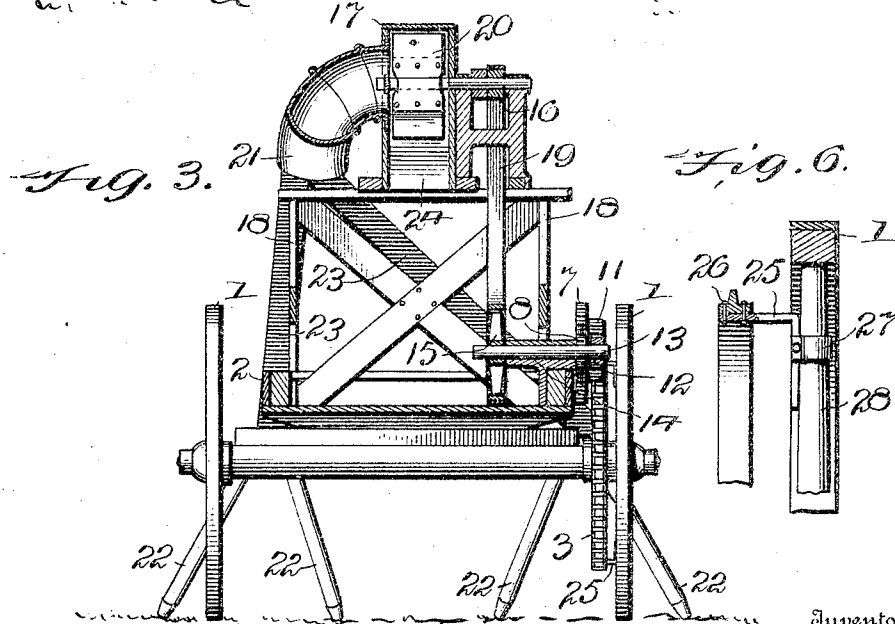
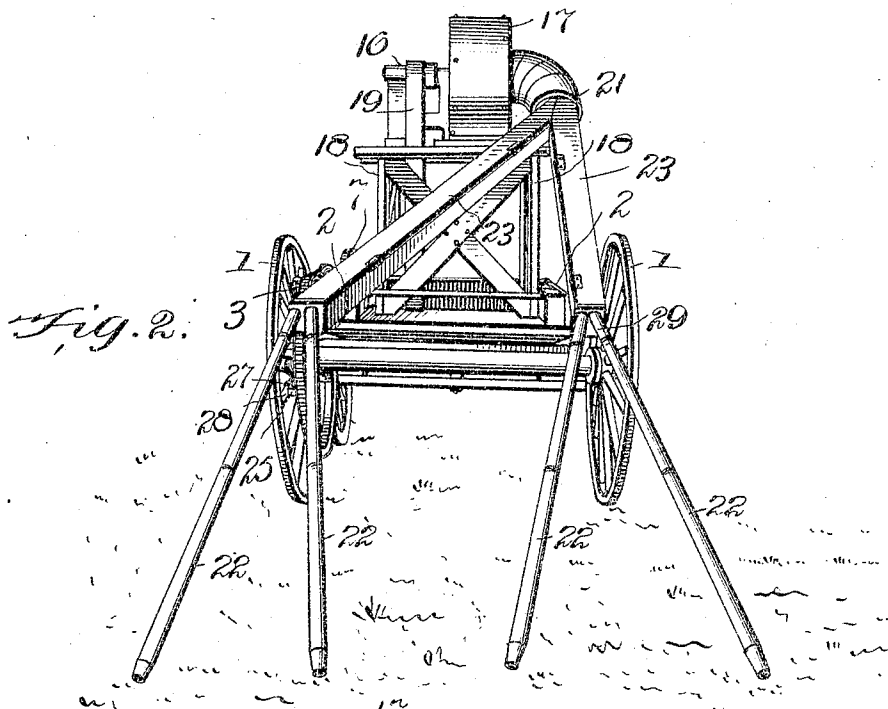
Inventor
J. N. McEachern.
W. J. F. G. S.
Attorney & Co.

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2 SHEETS—SHEET 2.



Witnesses
H. C. Barry.
Grace Gould.

Inventor
J. N. McEachern.
By *W. F. Barne*
Attorneys.

UNITED STATES PATENT OFFICE.

JOHN NEIL McEACHERN, OF HIGHLAND, TEXAS.

COTTON-PICKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 779,129, dated January 3, 1905.

Application filed May 3, 1904. Serial No. 206,170.

To all whom it may concern:

Be it known that I, JOHN NEIL McEACHERN, a citizen of the United States, residing at Highland, in the county of Erath and State of Texas, have invented certain new and useful Improvements in Cotton-Picking Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a cotton-picking machine, and more particularly to a pneumatically-controlled cotton-picking appliance; and my invention consists of certain novel features of combination and construction of parts, the preferred form whereof will be hereinafter clearly set forth, and pointed out in the claim.

The main object of my invention, among others, is to provide a reliably-efficient machine of the character specified whereby the ripened portion of the cotton may be easily and thoroughly picked or removed and disposed in a suitable receptacle.

Other objects and advantages will be hereinafter made clearly apparent, reference being had to the accompanying drawings, which are made a part of this application, and in which—

Figure 1 shows a side elevation of my invention complete ready for use. Fig. 2 is a rear elevation thereof. Fig. 3 is a transverse sectional view taken on a median line of the suction-fan. Fig. 4 is a top plan view showing certain parts in section. Fig. 5 is a longitudinal section of the suction-tubes. Fig. 6 is a detail showing the preferred method of attaching the driving sprocket-wheel to the carrying-wheel, as by a plurality of brackets or arms.

For convenience of reference to the various details of my invention and coöperating accessories numerals will be employed, the same numeral applying to a similar part throughout the several views.

Referring to the numerals on the drawings, 1 designates the carrying-wheels, upon which is disposed the platform or carrying-frame proper, 2, upon which I operatively mount certain parts of my invention, it being understood

that suitable means for connecting the draft-animals to the carrying-truck thus or otherwise constructed shall be provided. To one of the rear wheels 1 I secure the driving sprocket-wheel 3, and upon the platform 2 I mount in suitable bearings the driven sprocket-wheel 4, said sprocket-wheels being operatively connected, as by the chain 5. The sprocket-wheel 4, it will be observed, is mounted upon the shaft 6, which also carries the gear-wheel 7, designed to mesh with the gear 8, fixed upon the stub-shaft 9, said stub-shaft being rotatably mounted in suitable bearings 10, carried by the platform.

Upon the outer end of the stub-shaft 9 I mount the gear 11, which meshes with the gear 12 upon the shaft 13, the latter being rotatably mounted in bearings 14, secured to a contiguous part of the platform, as clearly shown in Fig. 4. Upon the inner end of the shaft 13 I secure the band-wheel 15, designed to drive the band-wheel 16 of the fan 17, which latter is supported upon suitable standards 18, erected upon the central portion of the platform, as clearly shown. The band-wheels 15 and 16 are operatively connected by the band or belting 19, and by means of the train of gears above referred to it is obvious that the blower or suction fan 20 in the casing 17 will be driven at a rapid speed sufficiently to exhaust the air in the casing 17, and since said casing is provided with the tubular extension 21, placed in communication with the suction-tubes 22, by means of the box-like sections 23, it is obvious that great force of suction may be applied to the ripened cotton, whereby the latter will be sucked into the tubes 22 and from thence delivered into the receiving-tubes or box-like compartments 23, which latter may be provided at intervals with suitable cross-bars or outwardly-projecting hook-like fingers 23^a, while the cotton will be engaged by said bars or fingers and arrested and prevented from entering the fan proper, and since said box-like members 23 are provided with a suitable lid it is obvious that access may be readily gained to the interior thereof for the removal of the gathered cotton fiber.

The casing 17 may, if preferred, be left

open at its lower end, as indicated by the numeral 24, and a suitable box or receptacle (shown by dotted lines in Fig. 1) located beneath said opening to receive the cotton fiber; but I reserve the right to use either form of construction which I may deem most reliable and efficient in practice. The suction-tubes 22 are secured to the outer end of said box members by means of flexible tubes 29, the lower end of said boxes 23 being closed and having tubular extensions 30, over which is slipped one end of the flexible members 29, whereby the tubes 22 may be readily moved from point to point, so as to enable the operator to apply the ends thereof to the cotton to be gathered.

The various parts of my invention may be made of any desired material and any preferred size which is thought will best suit the requirements, and while I have described the preferred combination and construction of parts deemed necessary in carrying out my invention I wish to comprehend in this application all substantial equivalents and substitutes that may be considered as fairly falling within the scope of my invention.

Believing that the construction and advantages of my invention have thus been made clearly apparent, the operation thereof may be stated to be as follows: The machine is driven through the field in the usual manner and an attendant employed to hold the free ends thereof in close contact with the ripened cotton, when the suction caused by the fan 20 will remove the ripened cotton fiber and convey the same upward into the box-like receptacle 23 or into the casing 17, as the case may be.

By the use of my invention the laborious and expensive work of picking cotton will, it is thought, be reduced to a minimum.

While the driving sprocket-wheel may be attached to the carrying-wheel in any preferred way, as by bolting the same to the inner end of the hub, I have shown it as being connected to the carrying-wheel by means of a plurality of angular brackets 25, bolted to the inner side of the band of the sprocket-wheel, as indicated by the numeral 26, while the other branch of the bracket 25 is provided with a collar 27, secured at a proper point upon one of the spokes 28 of the carrying-wheel.

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

The herein-described cotton-picking machine, comprising a suitable truck or frame and carrying-wheels therefor; a suction-fan operatively mounted upon said frame; a suitable train of gear-wheels operatively connected with the fan and with one of said carrying-wheels; compartments 23 reaching from the casing of said fan and having flexible terminals, said compartments having cotton-arresting devices upon their inner surfaces whereby the cotton fiber will be held until removed, and suction-tubes secured to said flexible terminals all combined substantially as specified and for the purpose set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

JOHN NEIL McEACHERN.

Witnesses:

J. L. WATSON,
J. W. LYNCH.