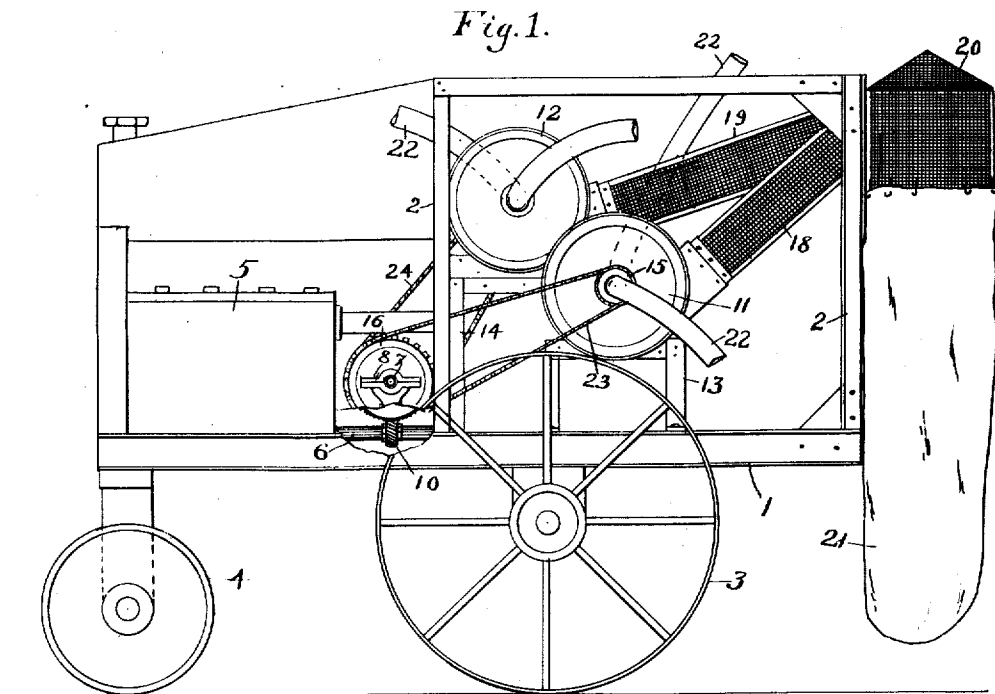
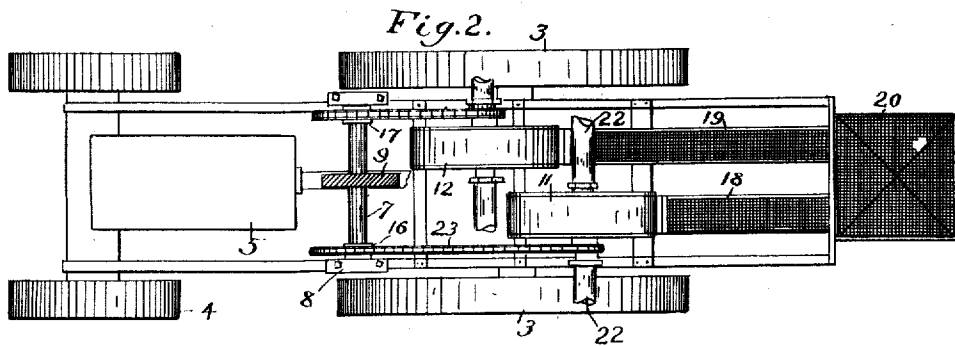


J. T. SKILLINS.
COTTON HARVESTER.
APPLICATION FILED AUG. 30, 1919.

1,355,787.

Patented Oct. 12, 1920.



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UNITED STATES PATENT OFFICE.

JOHN T. SKILLINS, OF WESTBROOK, MAINE.

COTTON-HARVESTER.

1,355,787.

Specification of Letters Patent.

Patented Oct. 12, 1920.

Application filed August 30, 1919. Serial No. 320,931.

To all whom it may concern:

Be it known that I, JOHN T. SKILLINS, a citizen of the United States, residing at Westbrook, in the county of Cumberland and State of Maine, have invented certain new and useful Improvements in Cotton-Harvesters, of which the following is a specification.

My invention relates to cotton harvesters of that class in which exhaust fans are used, connected with lines of hose terminating in suction nozzles. In these machines the picking of the cotton depends upon a powerful suction created in the nozzles by the exhaust fan or fans, and in order to get sufficient exhaust it is necessary to have a powerful motor and fans of large capacity, particularly where several lines of hose are used, with each suction nozzle in the hands of a field hand or operator.

It is also necessary or desirable to have the same motor which runs the fans also operate to move the entire machine.

The object of my invention is to design a cotton harvester so arranged that it will be narrow enough to go between rows of cotton, short enough to turn and be handled easily, and having capacity for the greatest possible number of lines of hose with the most compact and efficient arrangement of parts. I accomplish the above objects by means of my present invention in which the parts of the machine are most compactly and efficiently arranged.

My invention is illustrated in the accompanying drawing in which Figure 1 is an elevation, and Fig. 2 is a plan of a machine embodying my invention, only the essential features of the invention being shown.

Referring to the drawings, 1, 1, represent two girders arranged lengthwise of the machine and 2 is a framework erected thereon for supporting the operating parts.

3 and 4 are suitable supporting wheels and 5 is a gas engine or other suitable motor supported on the girders 1.

I have here simply indicated the location of the engine with relation to the other parts of the body, with the position of the main power shaft 6. A counter shaft 7 is mounted transversely on the girders 1 by means of brackets or hangers 8.

The countershaft has a pulley 9 to which power is transmitted from the power shaft 6 by means of a spiral gear 10, mounted on

the shaft 6. Two exhaust fans 11 and 12 are mounted on the girders 1 by suitable supports which as here shown, rest on the girders 1, 1. The support 13 raises the fan 11 a considerable distance above the girders 1, 1, and the support 14 raises the fan 12 above the level of the fan 11 so that the axis of the two fans are considerably offset from each other. Each fan has a pulley by which it is belted to one of the two transmission pulleys 16 and 17 on the countershaft. The fan 11 has a pulley 15 belted to the transmission pulley 16 and the fan 12 has a similar pulley belted to the transmission pulley 17. The pulleys are sprocket pulleys and the belts are sprocket chains so that the drive is positive and free from tendency to slip. The lines of suction hose are connected to the center of the fans on each side so that each fan has two lines of hose, one on each side projecting out at right angles to the frame and in position to be used on both sides of the machine and to move with the machine. Each line of hose is free from the adjacent fan on account of the latter being offset from each other.

The cotton after it passes through the fan is discharged tangentially into a pair of ducts 18 and 19 connected respectively with the fans 11 and 12. These ducts are formed of woven wire or of other open work construction which will allow the free escape of air for reducing the speed of suspended cotton. As here shown they are rectangular in cross section and they both connect at their upper and rear ends with the cage 20, secured at the upper rear portion of the machine.

The cage 20 is constructed of woven wire or other open work construction to allow the escape of air and it is open at the bottom to allow the cotton to fall downward.

The cotton is received into a bag 21, hooks or other retaining means being provided for holding the bag in position.

The velocity of the cotton as it comes from the fan is such that if it was to strike against any solid object the seeds might be cracked, spoiling the cotton. In my machine the cotton is thrown out tangentially into an open-sided duct through which the air dissipates rapidly, cutting down the velocity of the cotton so that when it reaches the cage it can do no harm to the seeds.

I claim:

In a vacuum cotton harvester the combination of a frame, wheels for supporting the same, a counter shaft, transmission pulleys
5 thereon, a pair of exhaust fans each having a central inlet opening on its opposite sides, pulleys on said fans in line with said transmission pulleys and bolted thereto, a line
10 of hose connected to the inlet openings of each of said fans, a pervious cage at the

rear of the frame, open at the bottom, means for supporting a bag for receiving the cotton from said cage and a pervious duct leading from each fan to said cage, said fans
operating to draw the cotton from the hose 15 and discharge it into the cage.

In testimony whereof I have affixed my signature.

JOHN T. SKILLINS.