W. E. Prall.

Cotton Harvester.

No 52880 Patented Feb. 27, 1866.

Side View.

Fig. 1.

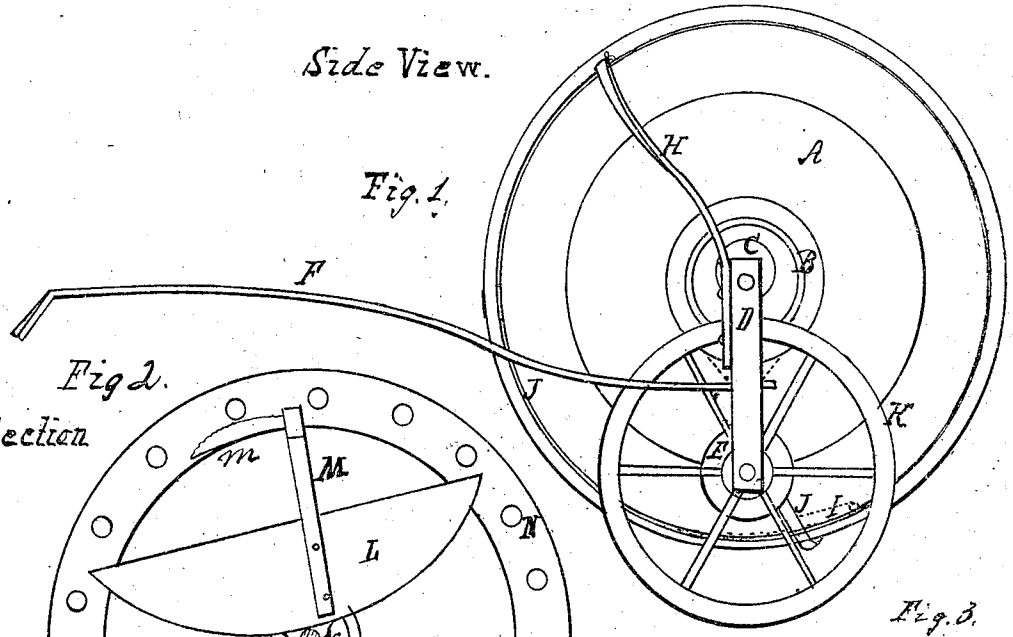


Fig 2.

Section

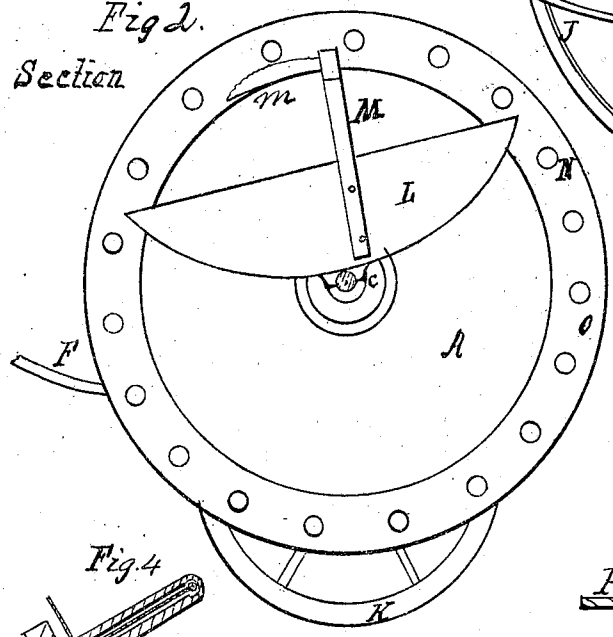


Fig. 3.

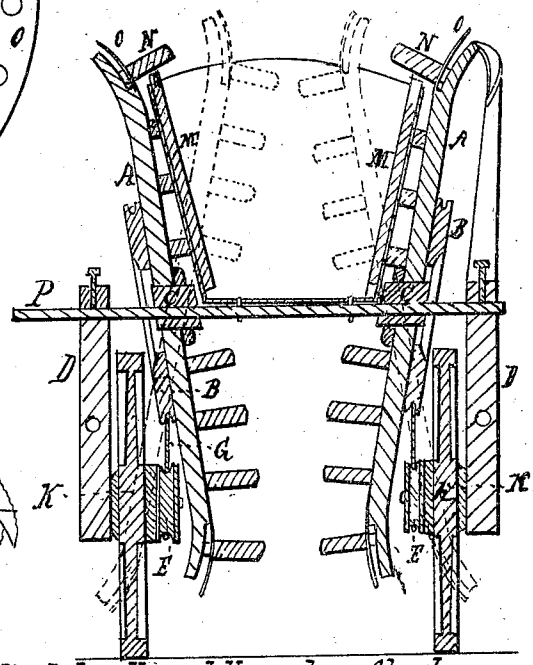


Fig. 4

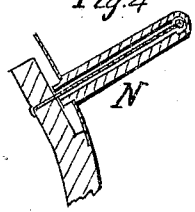
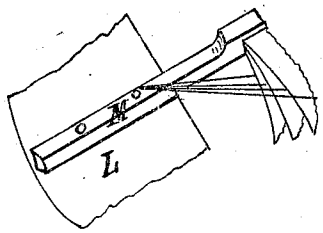


Fig. 5



Vertical section taken through the centre of Shaft.

Witnesses.
W. W. Bassett
W. O. Kleden

Inventor.
W. E. Prall
per Saml. Hinds
atty

UNITED STATES PATENT OFFICE.

WILLIAM EDGAR PRALL, OF KNOXVILLE, TENNESSEE.

IMPROVEMENT IN MACHINES FOR PICKING COTTON.

Specification forming part of Letters Patent No. **52,880**, dated February 27, 1866.

To all whom it may concern:

Be it known that I, WM. EDGAR PRALL, of Knoxville, in the county of Knox and State of Tennessee, have invented a new and useful Machine for Picking Cotton; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side view. Fig. 2 is a view of a section. Fig. 3 is a vertical section taken through the center of the shaft. Fig. 4 is a view of a section of the cylinders. Fig. 5 is a perspective view of the toothed arc.

Fig. 1, A is a side view of the large wheel, upon the perimeter of which the cylinders are arranged. B is a fixed grooved-wheel on the outside of A. C is a cam and hub, upon which A revolves. It is perforated diagonally by an axle and fixed upon said axle. A A in revolving upon this cam are brought together at the bottom or such other point as may be desired, according to the position of the cam C. D is an upright shaft adjusted at the bottom to the axle upon which R revolves and adjusted at the top to the axle which perforates C. E is a small stationary grooved wheel on the hub of R, and upon which a band from B works. F is the tongue of the running-gear and adjusted to the center of D. G is the band which works upon B and E. H is a shaft adjusted on D, to one end of which is fixed a stationary band, I, running around A to I. I is a stationary band, against which the journals of N in Fig. 4 work, which causes them to revolve. K is the driving-wheel of the machine.

Fig. 2, A is an inside view of the large revolving wheels. F is the tongue of the running-gear. L is the bed in which the cotton is deposited after being taken off the cylinders. M is a shaft adjusted on the inside of L, and on the end of which the toothed arc *m* is fixed. N is a hole in O in which the cylinders work. O is a piece around the perimeter and on the inside of A, and between which and the edge of A the stationary band runs. R is the driving-wheel of the machine.

Fig. 3, A is the large revolving wheel. B is the grooved wheel on the outside of A. C is the cam upon which A revolves. D is the upright shaft connecting the hub of R and P. E is the small fixed grooved wheel on the inside of the hub of R. G is the band working upon B and E. H is a shaft adjusted to D, to which one end of O is fastened. M is the bed in which the cotton is deposited. N is the cylinder of Fig. 4, around the perimeter of A. O is the stationary band from H to I, working against the journals of N. P is the axle connecting the large wheels.

Fig. 4 is the cylinder around the perimeter of A, which consists of a little round brush with journals, upon which the stationary band works and causes them to revolve and catches the cotton as they come in contact with the boll.

Fig. 5, L is the bed in which the cotton is deposited. M is the shaft on the end of which the toothed arc is arranged, and which reverses the motion of the cylinders after they come from under the stationary band. The red lines represent the arrangement for cleaning the toothed arc.

I claim—

1. The revolving cylinders or shafts N, Fig. 4, covered with tenacious substance to attract and wind the cotton from the bolls.

2. The revolving wheels A, upon which the cylinders or shafts are attached.

3. The arrangement of a toothed arc, *m*, for reversing the motion of the cylinders and unwinding the cotton.

WM. EDGAR PRALL.

Witnesses:

JOHN A. JUDD,

M. P. CHAPIN.