2 Sheets. Sheet 1.

J. M. Aitchison,

Corn Planter.

No. 112,006. Patented Feb. 21, 1871.

Fig. 1.

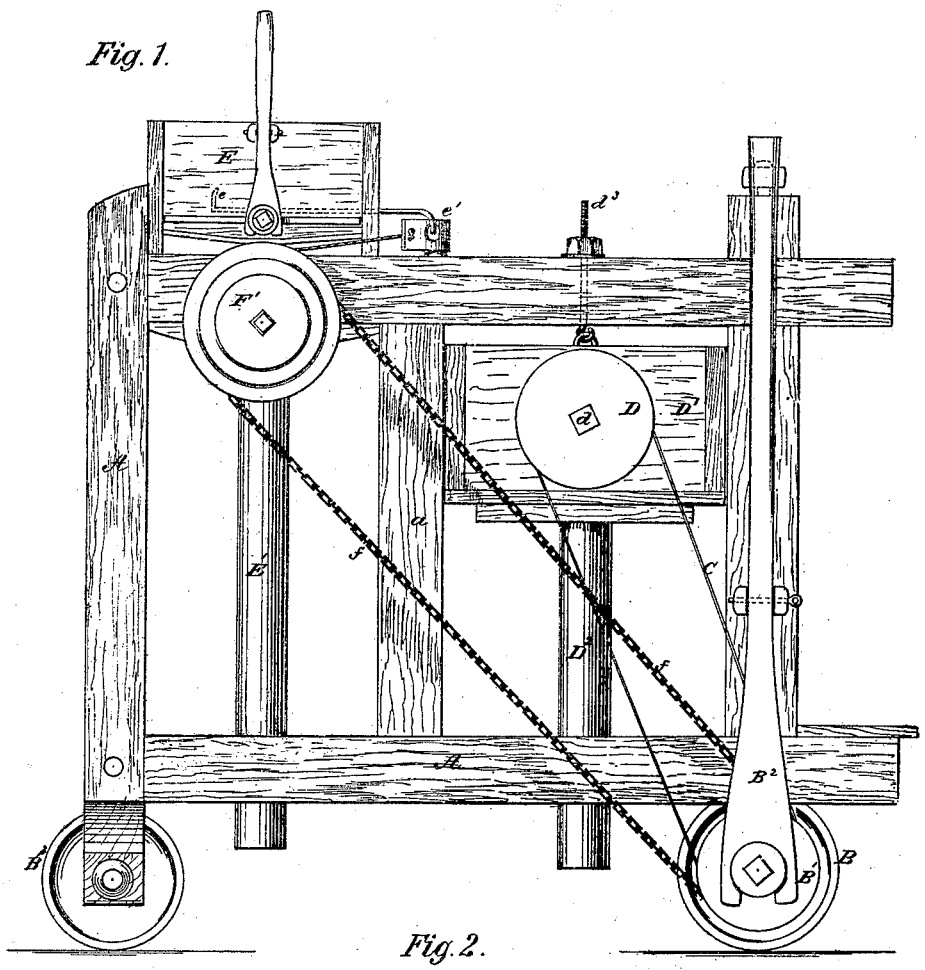
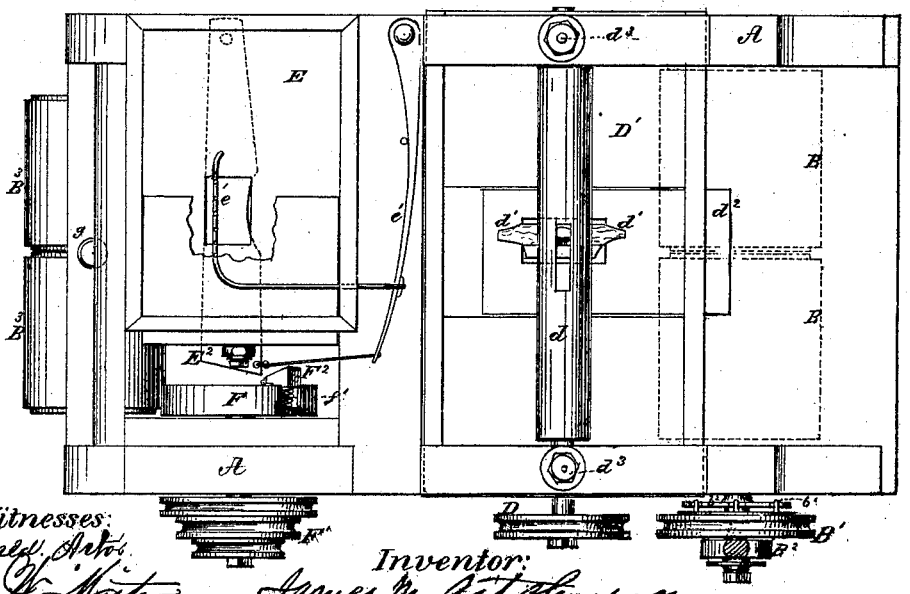


Fig. 2.



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J. M. Aitchison, 2. Sheets, Sheet. 2.

Corn Planter.

No. 112,006. Patented Feb. 21. 1871.

Fig. 4.

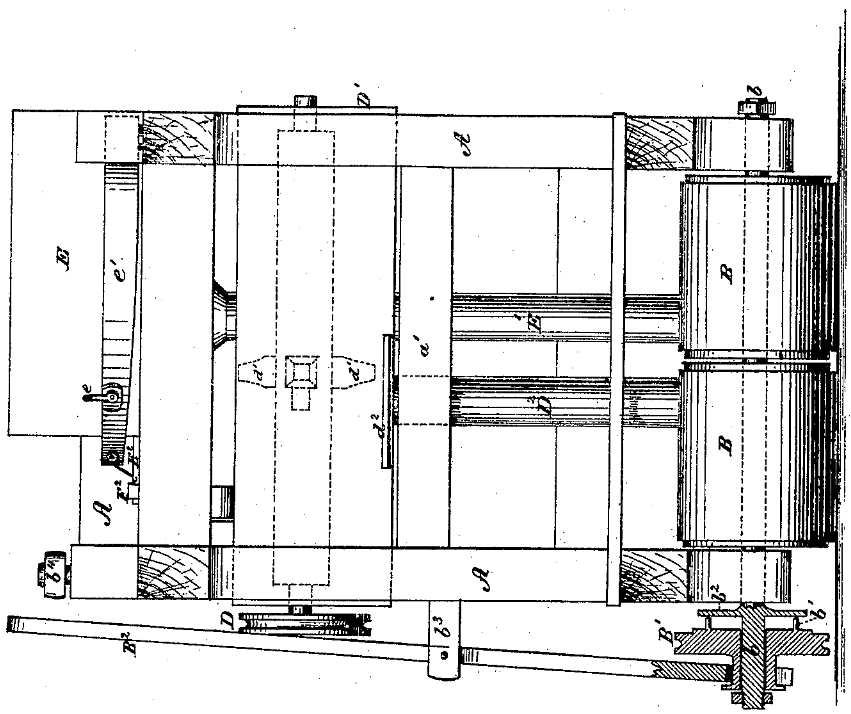
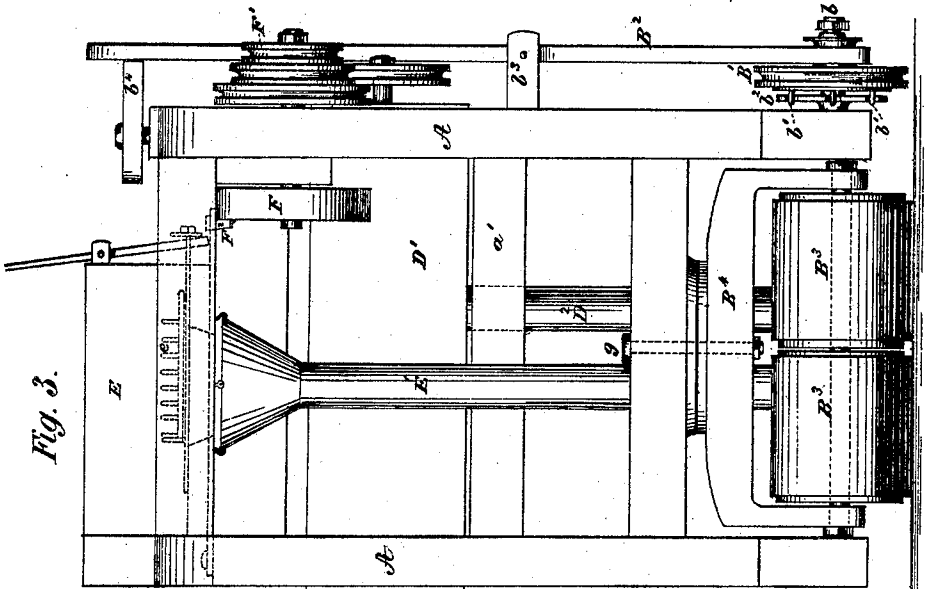


Fig. 3.



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United States Patent Office.

JAMES M. AITCHISON, OF OMAR, NEW YORK.

Letters Patent No. 112,006, dated February 21, 1871.

IMPROVEMENT IN CORN-PLANTERS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JAMES M. AITCHISON, of Omar, in the county of Jefferson and State of New York, have invented a certain new and useful Improvement in Planters; and I do hereby declare that the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing forming a part of the same, and in which—

Figure 1 represents a side elevation of my improved planter;

Figure 2 a plan view;

Figure 3 a front; and

Figure 4 a rear view of the same.

This invention appertains to planters, and consists in the construction and combination of the constituent parts of the same, substantially as hereinafter set forth and claimed.

Similar letters of the several figures indicate corresponding parts of my invention.

To enable those skilled in the art to which my invention appertains to make and use the same, I will proceed to describe its construction and operation.

In the annexed drawing—

A A represents a frame, of ordinary construction, and braced at its center by the vertical bars or pieces *a*, only one of which is shown in the figure.

a' a' designate two transverse bars or braces, one of which is secured to and between the uprights *a*, at or near their center, and the other to and between the rear supports or legs of the frame A A, in a plane with the former brace. These braces connect the uprights *a* together, as do they the rear uprights or supports of the frame A A.

B B are two rollers, secured upon the rear axle *b*, journaled in the lower ends of the rear uprights of frame A.

Upon one end of the axle *b* fits a pulley or shipper, B^1, the axle of which is made hollow, and embraces the axle *b*, so as to permit of its being slid back and forth thereon, the object of which is to throw said pulley in and out of motion, consequently communicating motion to or cutting it off from its belt when desired.

The hollow axle of the pulley B^1 is constructed with a flange on its projecting end, for the purpose of holding the lower bifurcated end of the handle or shipper B^2 thereon.

The inner side of the pulley B^1 is supplied with a series of projections, b^1 b^1, which enter recesses cut upon the periphery of a disk, b^2, secured to the axle *b*, when said pulley is to be put in motion or pushed inward.

B^2 is a handle or shipper, hung upon a pin, having its ends entering apertures in a bar, b^3, secured to one of the rear supports of frame A A, and passing up through an opening in said bar b^3 to a point a little above the top of the said frame.

A swivel or button, b^4, is attached to frame A, for holding the handle B^2 in the position shown in fig. 3, or when it is held so as to throw the pulley B^1 in motion.

C is a belt, communicating motion from the pulley B^1 to the pulley D, located and secured upon the projecting end of the agitator bar *d* of the trough D^1, which trough is designed to receive grain that is to be sown in rows.

The agitator bar *d* is furnished with distributors d^1 d^1, for agitating the grain so as to cause it to enter the hole in the trough D^1, from which it is conveyed through a cylindrical spout, D^2, attached by suitable means to the bottom of said trough, to the furrow in which it is designed to plant the seed or grain. The opening in seed-trough D^1 is provided with a slide or cut-off, d^2, by means of which it may be closed when desired.

D^1 is the grain-trough, which is suspended and made vertically movable by means of the screw-bolts d^3 d^3, which pass up through openings in the top pieces or beams of the frame A A and nuts, the lower hooked ends of which bolts enter staples or eyes fastened to the said trough.

E designates another trough, in which it is designed to place and to be sown or deposited in hills, such as cotton-seed and the like.

This trough is secured upon the front part of frame A A, by any suitable means, and is furnished with a comb-like device, *e*, one end of which is pivoted to its bottom, and the other end connected by a rod or bar to a spring, *e'*, secured to frame A A. The object of the device *e* is to separate the seed where they adhere to each other, as is the case with cotton-seed, by means of its teeth and the vibration it receives from the spring *e'*, and thus allow the seed to enter the seed opening in said trough, and be carried off through its spout E^1 to the furrow to receive them.

E^2 designates a bar, pivoted at one end to the frame A A, directly beneath the trough E, and connected at its opposite end by means of a cord to one end of the spring *e'*.

F is a disk or wheel, with a projection, F^2, constructed thereon, which comes in contact with the bar E^2, causing it to vibrate, which will let the seed escape from the trough E.

The cam or disk F is secured to an axle which is journaled to the frame A A, and supplied with a pulley, F^1, around which passes an endless belt or chain, *f*, passing around the pulley B^1, from which latter pulley said belt receives motion, communicating

it to the former pulley, which in turn operates the cam F.

The pulley F^1, in its construction, consists of a combination of grooved disks, the diameters of no one of which is the same, the object of which being for the purpose of giving it any desired velocity, thereby regulating the revolutions of the cam F, causing its projection to strike a greater or lesser number of times in a given time, the bar E^2 which will, in consequence thereof, regulate the number of seed which it is desired to deposit in a hill.

The projection on the disk F is hinged thereto at its lower end, and is attached at its opposite end by means of a spiral spring, *f*, to said disk, which spring is secured within a recess or cavity cut in said disk, as shown in fig. 2.

The object of this spring is to allow the projection on the disk F to yield or be pushed inward within the recess of disk F, out of the way, should the planter by accident, when in operation, be backed or reversed.

The front rollers B^3 B^3 are secured upon an axle, having its bearings in the pendent ends of a brace, B^4, which revolves in the desired direction when the machine is turned either to the right or left hand, upon a king-bolt, *g*, passing through and held in a transverse brace of frame A A.

Having thus described my invention.

What I claim and desire to secure by Letters Patent, is—

1. The disk F, hinged projection F^2, and spring *f*, in combination with the pivoted bar E^2, cord and spring *e'*, and the pivoted comb-like device *e*, substantially as and for the purpose set forth.

2. The arrangement of the rollers B B and B^3 B^3, pulley B^1, handle B^2, belt C, pulley D, vertically-movable trough D^1, belt or chain *f*, pulley F^1, cam F, pivoted bar E^2, spring and cord *e'*, agitator bar *e*, and trough E, all arranged and operating substantially as and for the purpose set forth.

In testimony that I claim the foregoing I hereunto sign my name this day of January, 1871, in presence of two subscribing witnesses.

JAMES M. AITCHISON.

Witnesses:

J. W. MISTER,

JOS. R. EDSON.