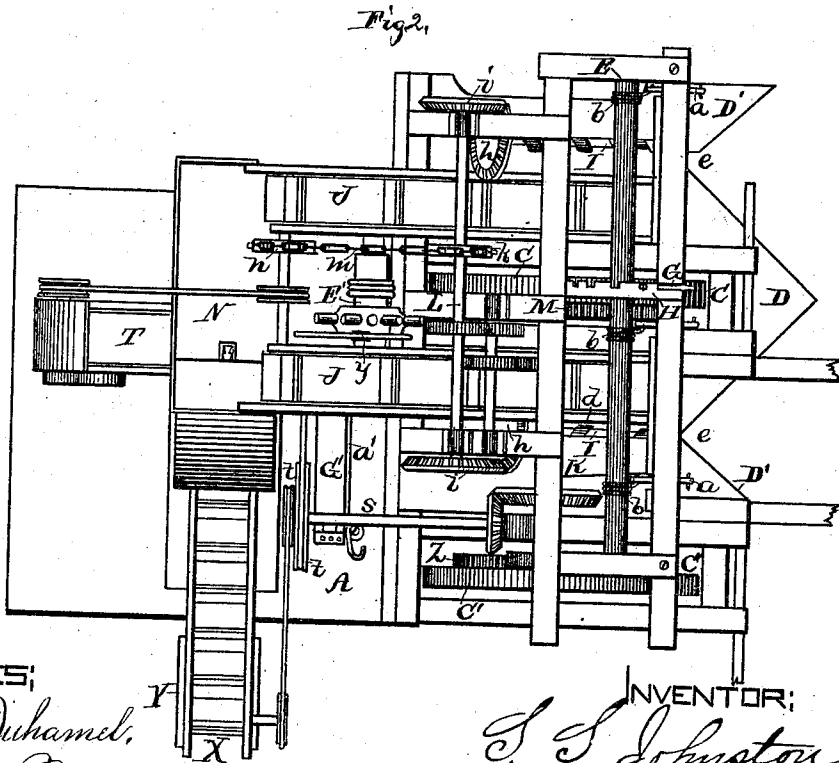
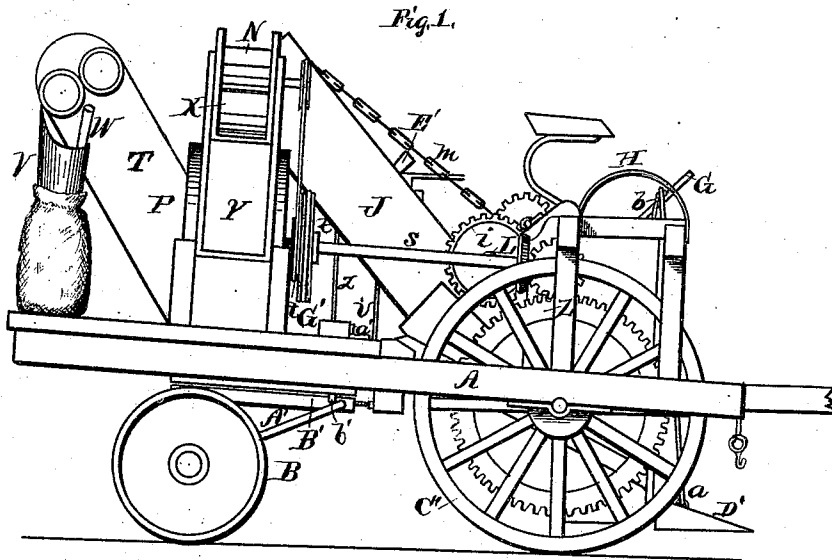


S. S. JOHNSTON.
CORN-HARVESTER.

No. 177,644.

Patented May 23, 1876.



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Fig. 3,

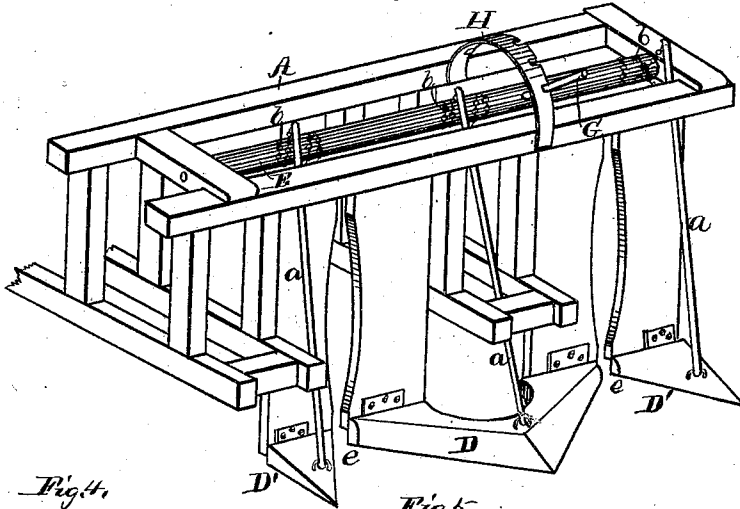


Fig. 4,

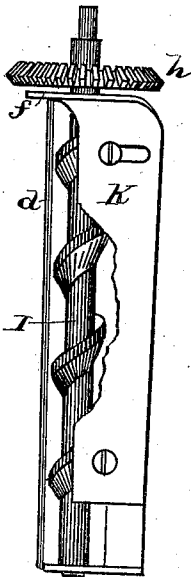


Fig. 5,

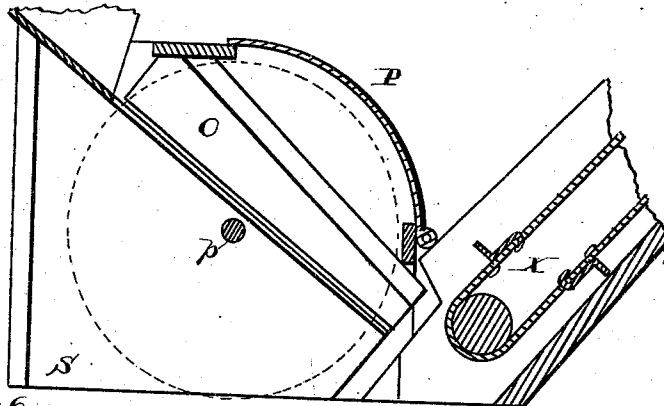
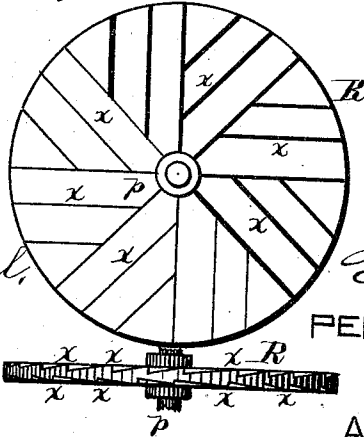


Fig. 6,



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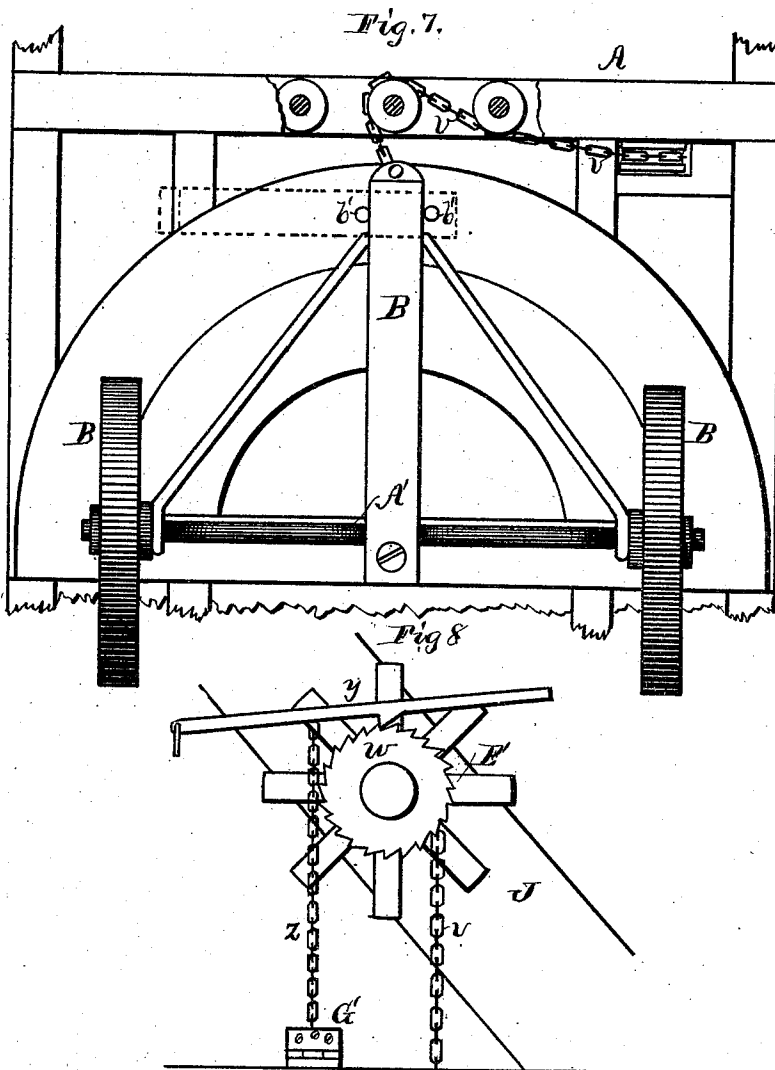
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UNITED STATES PATENT OFFICE.

SAMUEL S. JOHNSTON, OF POLO, ILLINOIS.

IMPROVEMENT IN CORN-HARVESTERS.

Specification forming part of Letters Patent No. 177,644, dated May 23, 1876; application filed October 9, 1875.

To all whom it may concern:

Be it known that I, SAMUEL S. JOHNSTON, of Polo, county of Ogle and State of Illinois, have invented certain new and useful Improvements in Corn-Harvesters, of which the following is a specification:

The nature of my invention consists in the construction and arrangement of a corn-harvester, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation of a machine embodying my invention. Fig. 2 is a top view. Fig. 3 shows the guides and device for their elevation. Fig. 4 shows the screw I and gage K. Fig. 5 is a sectional view of inclined ways O O and elevator X. Fig. 6 shows a side and top view of the husking-wheel R. Figs. 7 and 8 are detailed views.

A represents a frame-work of suitable construction to contain the various working parts of my machine, and supported at the rear by two smaller wheels, B B, and at the front by two larger wheels, C C'. Suitable shafts and single-trees are attached to the front end of the frame A for the attachment of the team to pull the machine. At the lower front edge of the frame A are hinged guides D and D', for conducting the corn-stalks into the proper channels for having the ears cut from the same, the machine being intended to operate upon two rows of corn at one time. The guides D D' are constructed as shown, and are connected by rods *a a* with chains *b b* attached to a roller, E, in the upper portion of the front part of the frame. This roller is provided with a lever, G, which may be held in any desired position in a rack-bar, H, so that the guides D D' may be adjusted and held at any desired angle. Between each side of the center guide D and each side guide D' is left a narrow passage, *e*, through which the corn-stalks pass, and on the outer side of said passage is a screw or auger, I, to feed the stalks along, and prevent them bending forward or clogging the machine. On the inner side of each

passage *e* is an endless elevator, J, to the frame of which, alongside of the passage, is secured a knife, *d*. Over the screw or auger I is an adjustable gage, K, which forces the stalks against the knife *d*, so that said knife will cut off the ears of corn, which will then fall upon and be carried up by the elevator J. At the upper end of the gage K is a knife, *f*, extending inward over the elevator, to cut off any ears of corn not cut off by the knife *d*, and prevent the same from passing out by the stalks. The two screws or augers I I are at their upper ends provided with miter-wheels *h h*, gearing with similar wheels *i i*, on a shaft, L, and this shaft is, by suitable gearing, connected with a cog-wheel, M, secured on the side of the driving-wheel C, and thus the augers are driven from said wheel C. On the shaft L is a pulley, *k*, connected by means of a chain, *m*, with a pulley on a shaft, *n*, passing through the upper rollers of the elevators J J, so that said elevators will be operated by the same. The ears of corn being carried up by the elevators J J are deposited by them in a hopper or chute, N, from which they pass between inclined ways O O, within a case, P, against the sides of a revolving husking-wheel, R. This wheel is constructed, as shown, with radial cutting-teeth, *x*, on both sides, and mounted upon a shaft, *p*. These teeth cut and tear the husks off from the ears, the husks falling down into a receptacle, S, from which they are carried up by an elevator, T, having on its under side, near the upper end, a suitable spout, V, for the attachment of a sack to receive the husks. The husks may be packed into this sack by means of a pounder, W. After the husks have been stripped from the ears the latter are caught and carried up by an elevator, X, having a hinged spout or chute, Y, at its upper end to conduct the ears to a wagon that is to be driven alongside of the harvester. The elevator T is driven by a belt or chain from a pulley on the shaft *n*, while the husking-wheel R and elevator X receive their motion from a cog-wheel, Z, secured on the driving-wheel C', which cog-wheel is by gearing connected with a shaft, *s*, having pulleys *t t*, and these pulleys are by belts or chains suitably connected with pulleys on the husking-wheel and eleva-

tor-shafts. The rear wheels B B are mounted upon spindles in a pivoted frame, A', having a central forward-projecting arm, B' which, by suitable cords or chains *v v*, is connected with a windlass, E', situated between the two elevators J J, so that by turning said windlass the harvester may be guided as desired. At one end of the windlass is a ratchet-wheel, *w*, into which takes a pivoted pawl, *y*, and this pawl is, by a cord or chain, *z*, connected with a bar, G', hinged on the main frame, and held down on the same by a spring, *a*. From the hinged bar G' project two pins, *b' b'*, downward through the frame, to hold the tongue or bar B' in proper position, so that the wheels B will be held to cause the machine to move in a straight line.

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

1. The guides or gatherers D and D' D', hinged to the frame, and operated by means of the rods *a*, chains *b*, roller E, with lever G

and rack H, substantially as and for the purposes herein set forth.

2. The screw or auger feed devices I I, arranged on the outer sides of the spaces *e e*, in combination with the knives *d d*, and elevators J J, substantially as and for the purposes herein set forth.

3. The adjustable gage K, with knife *f* at its upper end, in combination with the screw or auger I and elevator J, substantially as and for the purposes herein set forth.

4. The combination of the husking-wheel R, receptacle S, husk-elevator T, having spout V, and corn-elevator X, having hinged spout or chute Y, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing as my invention, I hereunto affix my signature this 28th day of September, 1875.

SAMUEL S. JOHNSTON.

Witnesses:

CHAS. F. BARBER,
H. M. CLOPPER.