

H. A. SHARP.  
Corn-Planters.

No. 139,269.

Patented May 27, 1873.

Fig 1

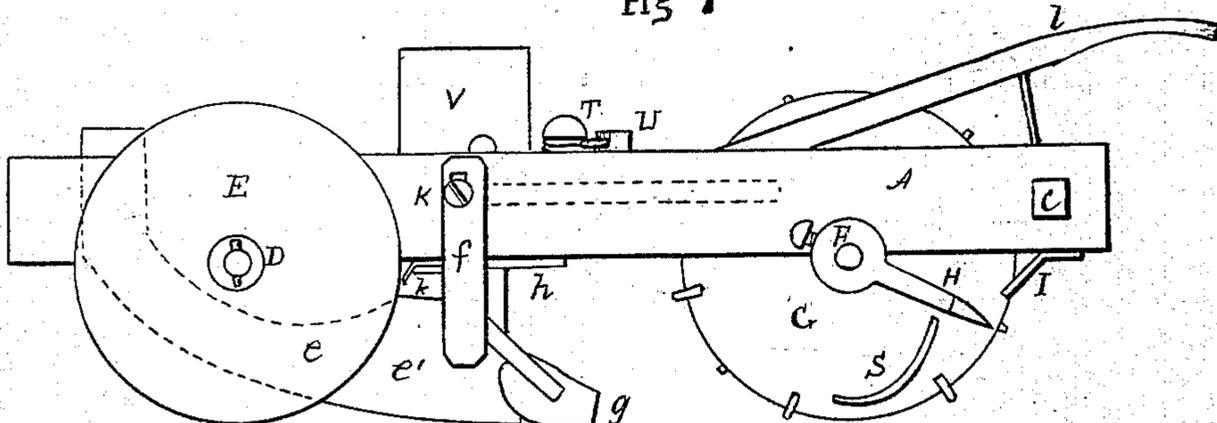


Fig 2

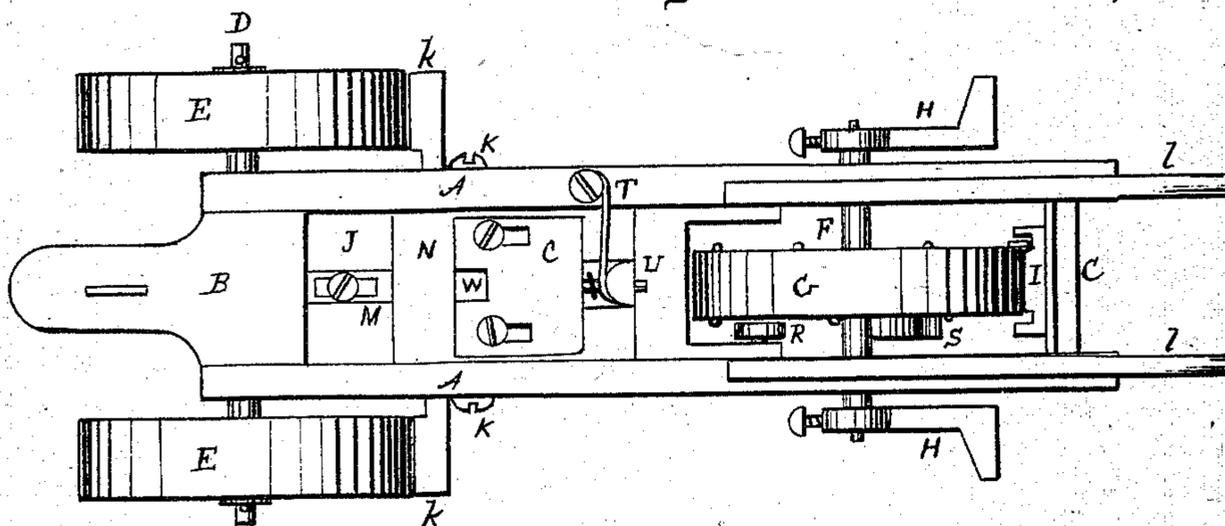


Fig 3

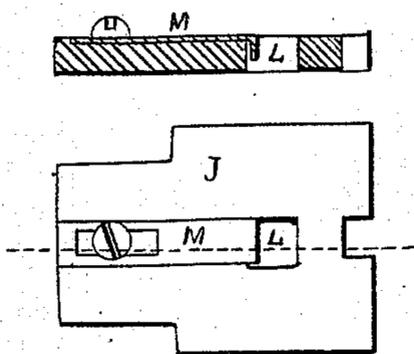
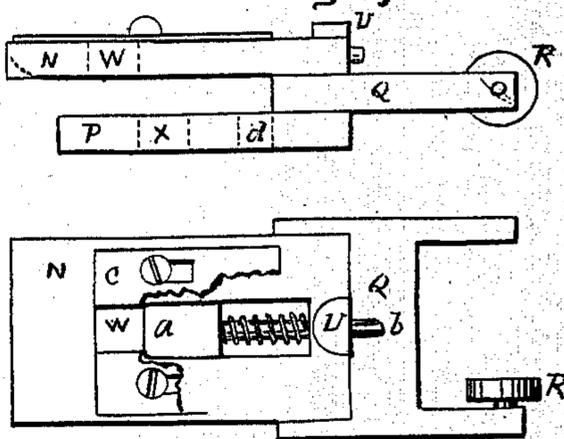


Fig 4



WITNESSES,

*J. S. Lyon*  
*H. T. Grinnell Jr.*

*Hiram A. Sharp*  
*By his Atty. J. Dennis Jr.*

# UNITED STATES PATENT OFFICE.

HIRAM A. SHARP, OF HARLEM, MISSOURI.

## IMPROVEMENT IN CORN-PLANTERS.

Specification forming part of Letters Patent No. **139,269**, dated May 27, 1873; application filed March 3, 1873.

To all whom it may concern:

Be it known that I, HIRAM A. SHARP, of Harlem, Clay county, in the State of Missouri, have invented certain new and useful Improvements in Planters for Corn and other Seeds; and I hereby declare the following to be a full and exact description thereof, reference being had to the accompanying drawings forming part of this specification.

The nature or essence of my invention consists in the particular construction, combination, and arrangement of devices forming the improvements in planters for corn and other seeds, described in the following specification and represented in the accompanying drawings, in which—

Figure 1 is an elevation of a machine with my improvement. Fig. 2 is a plan of the same with the hopper removed. Fig. 3 is a section and plan of the bottom of the hopper; and Fig. 4 is an elevation and plan of the feeding-slides N and P; the plate *c* is broken away to show the parts covered by it.

In the above-mentioned drawings, A A are the side pieces of the frame, B the fore end, and C the rear end, made in the form shown, or in such other form as will answer the purpose, and firmly fastened together to form a strong frame, to which the other parts are fastened or connected. D is the fore axle provided with two wheels, E E, and F is the rear axle provided with one wheel, G, which has projecting points on each edge of its periphery to prevent it from slipping as the planter travels. This rear axle F carries two marking-arms, H H, which make marks across the tracks of the fore wheels E E, opposite each deposit of seed, to enable the operator to plant his field so that the rows will be at a right angle to one another, that it may be cultivated both ways. Both of these axles are arranged to turn in boxes fastened to the under side of the frame. The scraper I, fastened under the end C, is provided with scores and prongs so as to clear the sides of the projecting points and the tread of the wheel G. The inner sides of the sides A A are grooved to receive the edges of the plate J, Fig. 3, which is fastened by screws K. This plate has a hole, L, in it to receive the charge of seed to be dropped, which hole may be varied by the slide M

to graduate the charge of seed put in a hill. The traversing-plates N and P, Fig. 4, have their rear ends fastened to the plate Q, which is made wider than the other two, so that its edges traverse in the grooves in the sides A. The rear end of this plate is forked so as to pass each side of the wheel G, and on one of the forks there is a roller, R, which is acted on by the tappet S, to traverse the plates forward at the proper time and drop the seed, and then the spring T, fastened to the side A, acts against the lug U on the plate N and pushes the plates back again. The plate N forms the bottom of the hopper V, and has a hole, W, in it, which, when the plate is at rest, is right over the hole L in the plate J, so that the seed from the hopper fills both holes and rests on the plate P, which has a hole, X, in it, a little in rear of the hole W in the plate N, so that as the two plates N and P are pushed forward the plate N shuts the seed in the hopper from the hole L in the plate J, and at the same time the seed in L falls through the hole X into the furrow in the ground. There is a slot in the plate N in rear of the hole W, the same width of the hole, with a block, *a*, and pin *b*, fitted to traverse in it, with a coiled spring around the pin which presses the block forward against a stop in the slot. But when the plate N is pushed forward and a kernel of seed catches between the slide M and the lower edge of the block *a*, the block *a* stops and compresses the spring, while the plate moves forward, so as not to break or crush the seed, so that when the plate N traverses back the seed falls into the hole L unbroken and is planted in the next hill. If the block was held rigidly in its place it would break and cut the seed in two when it was caught, and thus waste much seed. There is a thin plate, *c*, with slots in it screwed on the top of the plate N to cover the block *a* and coiled spring. There is a hole, *d*, in the plate P, by the fore end of the plate Q, shown by dotted lines in Fig. 4, to let any dirt or seed fall out that may get between the plates. The furrowing-runner *e*, shown partly by dotted lines in Fig. 1, is fastened in the fore end B, and extends down under the axle D and is provided with two wings, *e'*, with a space or opening between them through which the seed

falls to the ground. The wings *e'* are provided with slotted arms *f*, which are fastened to the sides *A* so that the runner *e* may be adjusted higher or lower, as desired. The covering-scrapers *g* are connected by springs to the wings of the furrowing-runner, so as to yield and open when a clod of earth gets between them and let it out, and not draw it along to displace the seed dropped before it is covered. There is a tube in the plate *h*, right under the hole *L* in the plate *J*, to conduct the seed down between the furrowing-wings when it is dropped, the plate *h* being fastened to the sides *A*. There is a bar fastened across the sides *A* to carry the scrapers *k*, which clean the fore wheels *E*. The handles *l l* are fastened to the tops of the sides near their rear ends.

I claim—

1. In combination with a seed-delivering

apparatus constructed with two slides, *N* and *P*, one traversing above and the other below, the perforated stationary plate *J*, the movable block *a*, constructed and arranged to operate substantially as described, for the purpose set forth.

2. The marking-arms *H H*, arranged on the rear axle *F*, to mark in the tracks of the fore wheels *E* so that the marks will not be obliterated by a shower of rain.

3. The spurs or projections on the wheel *G*, arranged each side of the tread of the wheel, in combination with the scraper *I*, provided with scores and prongs to clear projections and tread of the wheel.

HIRAM A. SHARP.

Witnesses:

K. M. BALL,  
ED. BRENNAN.