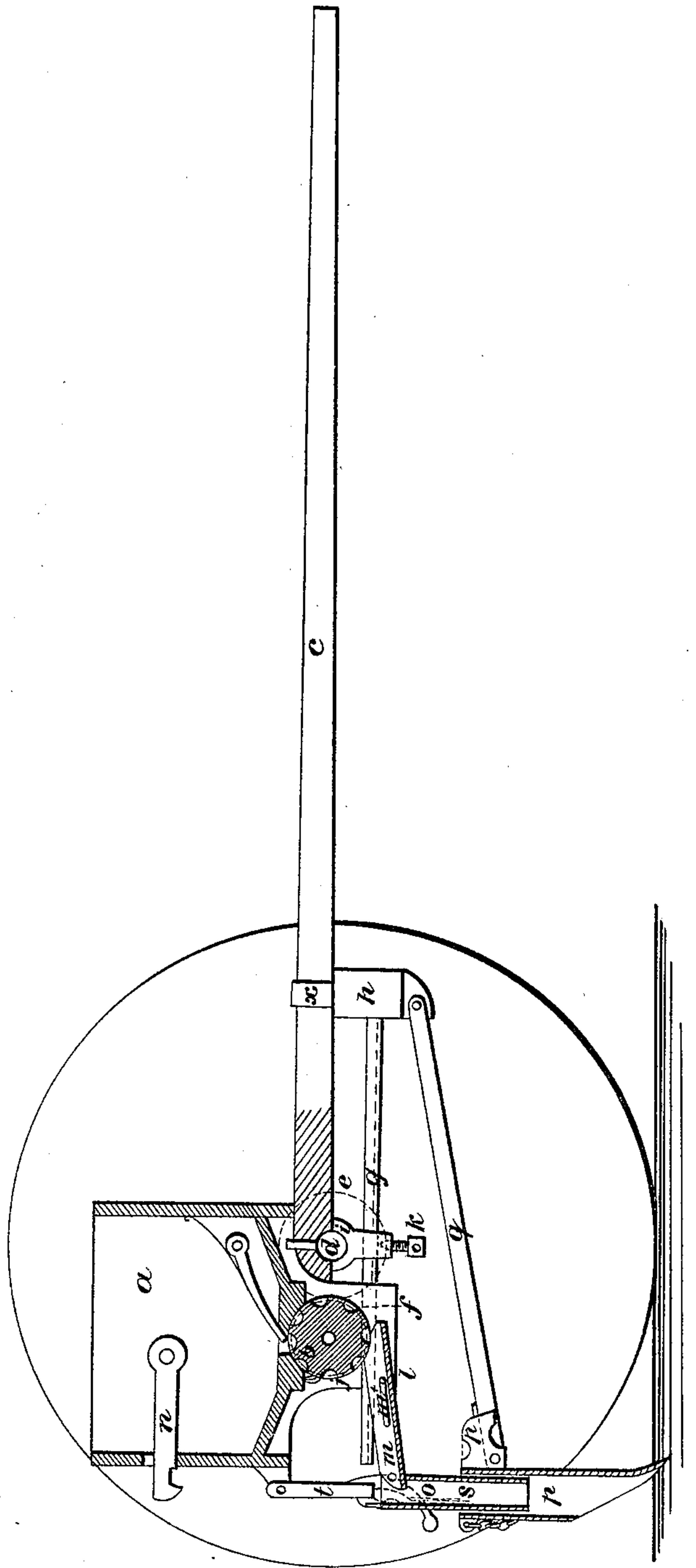


E. HART.

Grain-Drill.

No. 9,343.

Patented Oct 19, 1852.



UNITED STATES PATENT OFFICE.

EDSON HART, OF NEW ALBANY, INDIANA.

IMPROVEMENT IN SEED-PLANTERS.

Specification forming part of Letters Patent No. 9,343, dated October 19, 1852.

To all whom it may concern:

Be it known that I, EDSON HART, of New Albany, Floyd county, Indiana, have invented new and useful Improvements in Grain-Drills; and I do hereby declare the following to be a full, clear, and exact description of the nature, construction, and operation thereof, reference being had to the annexed drawing, making part of this specification.

My improvements have reference principally to the simple and efficient regulation of the feed.

In the annexed longitudinal section of a drill embodying my improvements, *a* is a hopper; *b*, a feed-roller; *c*, a draft-pole; *d*, an axle, all of usual construction. The motion of the feed-roller *b* is effected by gear-wheels, (shown by dotted lines *e f*,) one wheel, *e*, being upon the hub and the other, *f*, upon the shaft of the cylinder or feed-roller *b*. The distance apart of the roller-shaft and the axle can be varied, so as to admit of a change of gearing to vary the amount of the feed. The rail *h*, lying across the under side of the pole, and hung by staple *x* to the latter, has fast to it a rod, *g*, which, passing through a sliding collar, *i*, on the axle, enters and is made fast to a cheek, *j*, which, projecting downward from the hopper, affords journal-bearing for the feed-cylinder.

When it is desired to alter the feed the set-screw *k* is slackened, and the hopper *a*, with its attached rod *g*, rail *h*, and the appended drill movements being held fast, the axle and pole are slid either toward or from the hopper, according as it is wished to increase or diminish the amount of feed, and, being brought to their desired bearings, are again fixed by the screw *k*.

From one projection to the opposite one stretches a rod, *l*, which occupies a slot, *m'*, in a tray or trough, *m*, whose rear end, bearing

upward against the under side of the feed-roller, is thereby held in the sloping position shown. This trough receives the seed from the roller and drops it into the tube *o*, which conducts it into the hoe *p*, which is held in the desired position by a bar, *q*, pivoted to the rail *h* at the one end and to the lug *r* on the hoe *p* at the other. The lug *r* projects backward sufficiently to afford a firm bearing for the hoe against the bar *q*, and the angle of the hoe is adjusted by simply inserting a wedge between the lug *r* and the bar *q*. A chain fastened at its lower end to a lug on the hoe and at its upper end to a board, *t*, hinged to the hopper, enables the operator, by raising the board, to raise also the hoe *p* when out of use, and a latch, *n*, holds the board to its uppermost position. When the board *t* hangs down its lower edge presents a check to the ascent of the tube, and with it the shelf, to a height that might, by reversing the slope of the trough, spill the seed at its rear end.

The knocker *v* is to shake the seed into and out of the cavities of the roller, as described in my former patent.

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

The rail *h*, with the rod or rods *g* connecting it with the hopper *a*, the said rods occupying traversing-collars *i*, with tightening-screws *k*, by means of which the relative distance of the axle and the feed-shaft are adjusted to suit different arrangements of gearing, according to the rate of feed desired.

In testimony whereof I have hereunto set my hand before two subscribing witnesses.

EDSON HART.

Witnesses:

GEO. H. KNIGHT,
GEO. O. HART.