H. N. PEASE.

Walking Planter.

No. 107,954. Patented Oct. 4, 1870.

Fig. 1

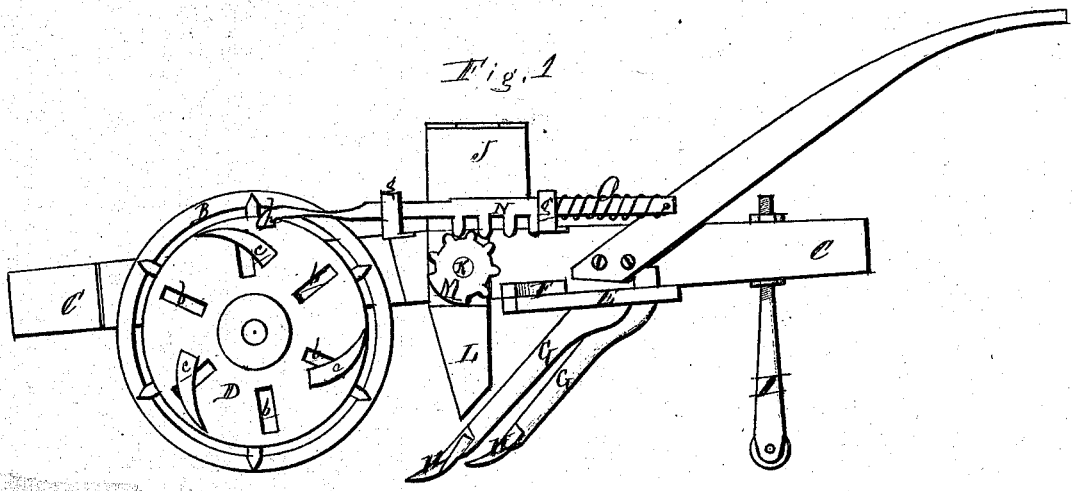
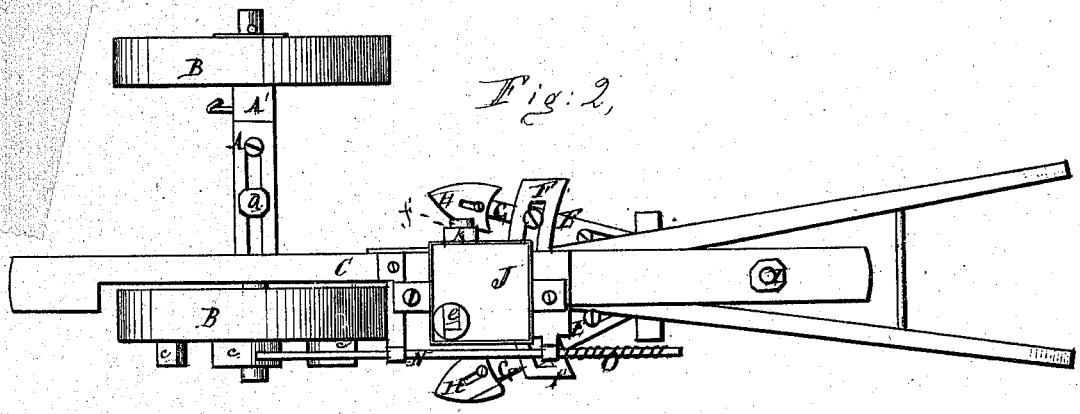


Fig. 2,



Attest

John Ruhlandt

H. T. Eberts.

Inventor.

H. N. Pease

Per Attorney

Thos. D. Sprague

N. PETERS, PHOTO-LITHOGRAPHER, WASHINGTON, D. C.

United States Patent Office.

HORATIO NELSON PEASE, OF TOLEDO, OHIO.

Letters Patent No. 107,954, dated October 4, 1870.

IMPROVEMENT IN CULTIVATORS.

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

To whom it may concern:

Be it known that I, HORATIO NELSON PEASE, of Toledo, in the county of Lucas and State of Ohio, have invented a new and useful Improvement in Combined Seed-Planters and Cultivators; and I do declare that the following is a true and accurate description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon, and being a part of this specification, in which—

Figure 1 is a side elevation, and

Figure 2 is a plan view of my improvement.

Like letters indicate like parts in each figure.

The nature of this invention relates to an improved construction of devices for planting seeds and hoeing or cultivating the same during the growth of the plant.

It consists in the arrangement of the shovel-standards or arms, and the means employed for adjusting the same at varying distances apart, and in a novel construction and arrangement of the seed-dropper, and the method of operating the same.

In the drawing—

A A′ represent a sectional axle, capable of being extended or shortened, and the parts secured together by a bolt, *a*, passing through their slots.

B are traction-wheels, rotating at either end of the axle.

C is a longitudinal beam, secured to the axle A near the "nigh" or driving-wheel of the device.

On this wheel is secured a disk, D, in which is a number of radial slots, *b*.

In these slots are secured tappets, *c*, by bolts and nuts, or otherwise, in such a manner that as many of said tappets may be moved to and secured at the outer ends of the slots, for the purpose which I will presently explain.

E are radius bars, pivoted to the under side of the beam, and are secured, by screw-bolts, to any desired position in the quadrant F.

To the radius bars are secured the arms G, to the points of which are secured the cultivator-teeth or shovels H.

I is a gauge-wheel, adjustable vertically in the beam, to determine the depth of furrow taken by the shovels.

J is a seed-box placed on the beam, and is provided with an opening in its bottom, underneath which is the dropper K. This dropper is a cylinder, journaled in a transverse circular opening in the beam, and is provided with a slot, *e*, extending down through it, under the opening in the seed-box.

The beam is also mortised, for the passage of the seed, which is led by the duct L to the ground.

In the end of the dropper a plug, *f*, is inserted, by means of which the area of the slot *e* open to the passage of the seed may be diminished at will.

On the other end of the dropper is a pinion, M, with which mesh the cogs of a tooth rack-bar, N, reciprocating in guides, *g*.

In the front end of the rack-bar a notch, *h*, is formed, on the under side.

The bar is constantly drawn back by a spring, O, coiled about it, as shown, or by any equivalent means.

P are handles, by means of which the operator guides the implement when at work.

As a seeder, as many of the tappets *c* as may be necessary to secure the dropping of the seed at the required distances apart, are secured at the outer ends of their slots. As the disk rotates, the point of a tappet engages with the rack-bar and draws it forward, causing the dropper to oscillate in its bearing, bringing its slot under the opening in the seed-box, allowing a given quantity of the seed to pass down through the spout to the ground. The opening is closed by the further rotation of the dropping-cylinder, until the tappet passes down below the plane of the rack-bar, which is then released, and quickly drawn back by the spring.

As a cultivator, any desired number of shovels may be attached, as occasion or circumstances may require, the axle being adjustable to any gauge, and the beam adjusted on the axle, so as to secure a center draft, if desired.

In cultivating vegetables the right wheel and half the axle may be removed, and, with two shovels, the row may be straddled and hilled up with the utmost ease.

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

1. The arrangement of the tappets *c*, rack-bar N, spring O, dropper K, plug *f*, and pinion M, in connection with the wheel B and seed-box J, when constructed as described and shown, and as and for the purposes set forth.

2. The arrangement of the radius bars E, quadrant F, arms G, and shovels H, constructed as described and shown, and as and for the purpose set forth.

HORATIO NELSON PEASE.

Witnesses:

E. A. VAN GIESON,

D. E. MERRILL.