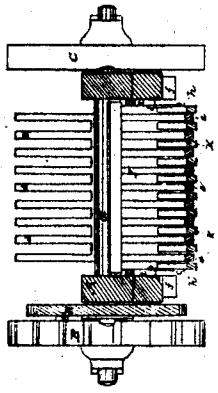
M. H. Wiley.

Potato-Digger.

No. 76127 Patented Mar. 31, 1868.



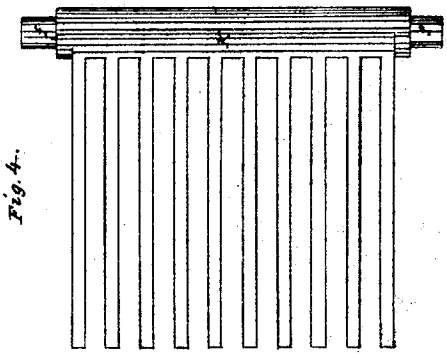


Fig. 4.

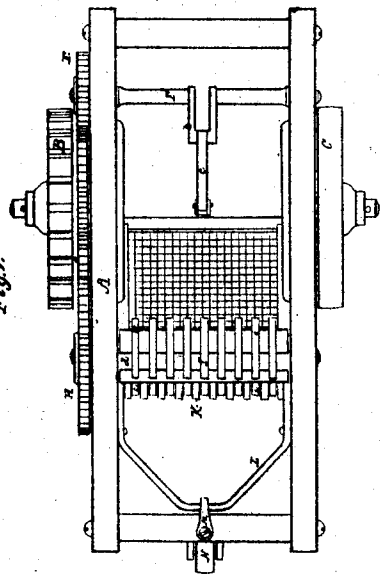


Fig. 1.

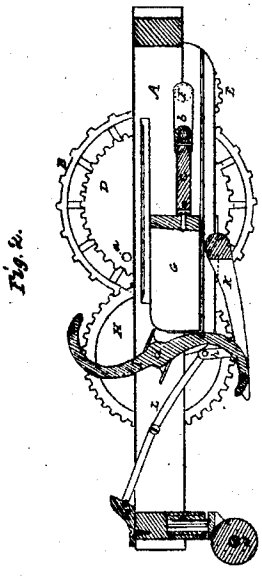


Fig. 2.

Witnesses
F. A. Piper.
J. R. Snow

Moses H Wiley
by his attorney.
R. H. Eddy

United States Patent Office.

MOSES H. WILEY, OF BOSTON, MASSACHUSETTS.

Letters Patent No. 76,127, *dated March* 31, 1868.

IMPROVEMENT IN POTATO-DIGGING MACHINE.

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

TO ALL PERSONS TO WHOM THESE PRESENTS MAY COME:

Be it known that I, MOSES H. WILEY, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and useful or improved Potato-Digging Machine; and do hereby declare the same to be fully described in the following specification, and represented in the accompanying drawings, of which—

Figure 1 is a top view,

Figure 2 a longitudinal and vertical section,

Figure 3 a transverse section of it.

Figure 4 is a top view of the excavating-comb.

In such drawings, A denotes the frame of the machine, as provided with two supporting-wheels, B C, which are arranged on journals projected from opposite sides of the frame. One of the said wheels, viz, that marked B, has ribs or teeth extending from its periphery, and at equal distances asunder, in order to enable it to take into the ground while the machine is in motion thereon. A gear, D, arranged on the frame of the wheel B, is connected to such wheel by a pin, *a*, going through the two. This gear D engages with another gear, E, fixed on a bell-cranked shaft, F, arranged within the frame A, in manner as represented. A box-screen or sifter, G, supported on ways, so as to be capable of being moved horizontally and lengthwise of the frame A, is connected with the bell-crank *b* of the shaft F by a pitman or connecting-rod, *c*. By means of the cranked shaft, the pitman, and the two gears D E, quick reciprocating rectilinear motions will be imparted to the sifter or screen while the wheel D may be in revolution. The said gear D also engages with another gear, H, fixed on the shaft *d* of a rotary lifter, I, which is composed of such shaft and two series of curved teeth, *e*, extended in opposite directions from it, and at equal distances apart, in manner as exhibited in the drawings. The lifter is disposed on the frame A, so as to be directly in front of the screen. Below the lifter, and within the frame A, is an excavator or comb K, which, by means of journals *f f*, arranged at its rear corners, is supported within the frame A, and so as to be under the lifter-shaft. This excavating-comb has its teeth so arranged as to enable the teeth of the lifter, while such lifter may be in revolution, to play between them. The comb is further supported by a bow-lever, L, connected to the comb by two links, *h h*. A notched turn-button M, applied to the front part of the frame, serves to retain the bow-lever in either of its positions, that is, so as to either hold the excavating-comb down when in its lowest, or up when in its highest position. When depressed, and the machine is being drawn over the surface of a potato-field, the excavating-comb will pass into the earth, and underneath the potatoes. The rotary lifter will seize them and raise them from the comb, and throw them into the screen, which will separate from them the earth which may have been raised with them. A caster or wheel, N, may be applied to the front end of the machine, to aid in supporting the frame A, and such frame may have thills or a pole extended from it, to enable one or more horses or other draught-animals to be harnessed to the machine.

I am aware of the subject of the United States Patent, No. 17,129, and therefore do not claim such. My invention differs materially therefrom, both in the combination as well as in the arrangement of its parts, as I employ a comb instead of a plough to enter the earth, and I arrange the rotary lifter so that its arms may work or pass between the teeth of the comb, and instead of a stationary grid, upon which the earth and potatoes are to be thrown, and moved by the action of the lifter, I employ a reciprocating box-screen, which not only separates the earth from the potatoes, but retains them, or prevents them from being discharged upon the ground, whereas the machine of John Taggart, as described in the said patent, No. 17,129, drops the potatoes on the ground.

The comb will not only bury itself in the earth to better advantage than a plough, but will enable much of the earth raised by the lifter to be discharged between the teeth of the comb. The comb, therefore, acts to facilitate the operations of the lifter.

What I claim as my invention, is—

The combination and arrangement of the reciprocating screen, the excavating comb, and the rotary lifter, and the mechanism applied to each for operating it, substantially in manner as described, the whole being supported by and applied to a frame, A, and its wheels B C, so as to be operated thereby, as and for the purpose explained.

M. H. WILEY.

Witnesses:

R. H. EDDY,

SAMUEL N. PIPER.