

J. M. KENDALL.
EARTH PULVERIZER.

No. 181,448.

Patented Aug. 22, 1876.

Fig. 1.

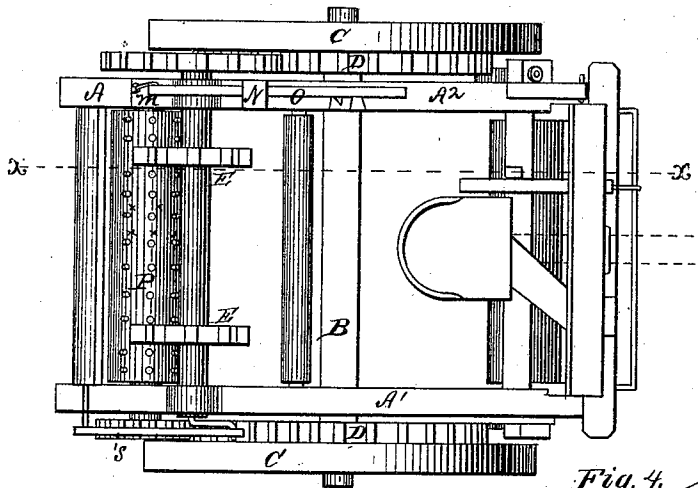


Fig. 2.

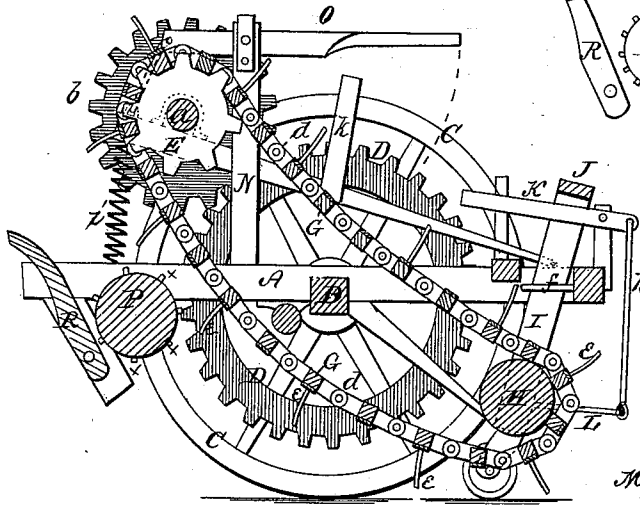


Fig. 4.

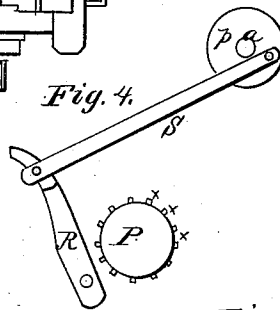
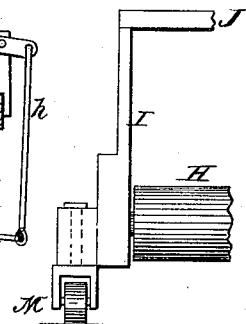


Fig. 3.



WITNESSES

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JAMES M. KENDALL, OF TRENTON, ILLINOIS.

IMPROVEMENT IN EARTH-PULVERIZERS.

Specification forming part of Letters Patent No. **181,448**, dated August 22, 1876; application filed June 20, 1876.

To all whom it may concern:

Be it known that I, J. M. KENDALL, of Trenton, in the county of Clinton, and in the State of Illinois, have invented certain new and useful Improvements in Pulverizers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a pulverizer, 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 drawing, in which—

Figure 1 is a plan view of my machine. Fig. 2 is a longitudinal section of the same through the line *x x*, Fig. 1. Figs. 3 and 4 are detached views of parts thereof.

A represents the frame of my machine, supported upon the axle B, which has a wheel, C, on each end. On the inner side of each driving-wheel C is secured a cog-wheel, D. One of these cog-wheels meshes with a pinion, *b*, on the end of a shaft, *a*, which has its bearings in the upper rear portion of the frame A. On this shaft are secured two toothed wheels, E E, which propel the endless carrier, composed of two endless chains, *d d*, connected at regular intervals by bars G G. Every alternate bar G is provided with teeth *e e*, projecting therefrom, as shown. The endless carrier thus constructed passes around a roller, H, at the front, near the bottom, said roller having its bearings in two uprights, I I, which pass through guides or staples *f f* at the front end of the frame A, and are connected at their upper ends by a cross-bar, J. K is a lever, connected by a rod, *h*, with a bail, L, attached to the uprights I I, by which means said uprights, with the roller and front end of the carrier, can be adjusted at any height desired. At the lower ends of the uprights I are castor-wheels M, as shown. The upper shaft *a* has its bearings in side arms A¹ A², forming part of the frame of the machine, both being inclined, as shown. The arm A¹ is rigidly attached to the main frame, while the arm A² is hinged at its front end to the main frame, and the rear end held down

by a spiral spring, *i*, so that the pinion *b* will be held down onto the cog-wheel D on that side of the machine. O is a lever, pivoted on a standard, N, and its rear end connected, by a link, *m*, with the rear end of the side arm A², so as to raise said arm when desired to throw the pinion *b* out of gear, the lever O being then held by a catch, *k*.

In the operation of the machine, the clods are carried up by the endless carrier *d G e*, and dropped down between a cylinder, P, and crusher R, which form, as it were, a hopper. The cylinder P is provided with spikes or teeth *x x*, and is rotated by having a pinion, *s*, on the opposite side of the machine from the pinion *b*, said pinion *s* meshing with the cog-wheel D on that side of the machine. On the end of the shaft *a* is a disk, *p*, with crank-pin, on which is placed a pitman, S, connecting with the upper end of the crusher R, the lower end thereof being pivoted in the frame. By this means the crusher R obtains a rocking motion to and from the cylinder P, so as to break up the clods in conjunction with the teeth *x* on the cylinder P.

V is the driver's seat, located in such a position that the driver can easily reach both levers, K and O.

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

1. The combination of the hinged side arm A², carrying the end of the shaft *a*, with pinion *b*, the spring *i*, lever O, link *m*, and catch *k*, all substantially as and for the purposes herein set forth.

2. In a pulverizer, the combination of a rotating toothed cylinder and a hinged rocking or reciprocating crusher, substantially as and for the purposes herein set forth.

3. The combination, in a pulverizer, of an endless rotating carrier, a rotating toothed cylinder, and a rocking or reciprocating crusher, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of April, 1876.

JAMES M. KENDALL.

Witnesses:

M. L. STOWELL,
BENJAMIN LOUDEN.