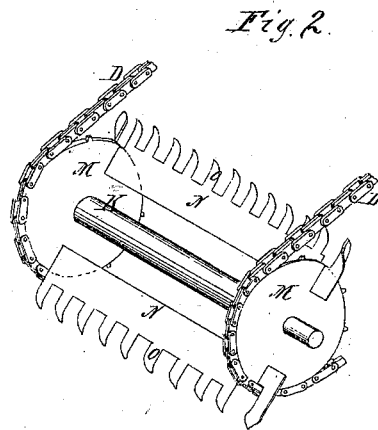
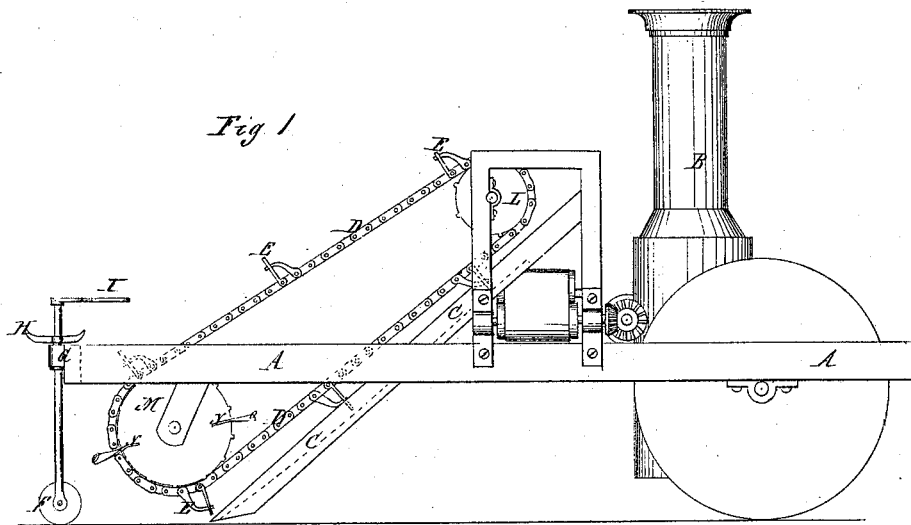


B. T. Stowell.

Excavator.

No. 113,221.

Patented Mar. 28, 1871.



Witnesses:

H. J. Smith
E. A. Smith

Inventor:

Barnes T. Stowell

PER

Attorneys.

UNITED STATES PATENT OFFICE.

BARNA T. STOWELL, OF QUINCY, ILLINOIS.

IMPROVEMENT IN EXCAVATORS.

Specification forming part of Letters Patent No. **113,221**, dated March 28, 1871.

To all whom it may concern:

Be it known that I, BARNA T. STOWELL, of Quincy, in the county of Adams and State of Illinois, have invented a new and Improved Excavator; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification.

My improvement relates to that class of excavators in which the rotary cutting-cylinder forms the means of propelling the machine forward; and it constitutes an improvement upon the machine for which Letters Patent of the United States were granted to me November 17, 1868. In its construction I have aimed to combine the simplest means of cutting or digging in the earth and elevating the portion thus loosened. These consist, mainly, of a digger formed of two disks on a central shaft, and two or more toothed bars, and of an endless chain, which not only rotates said digger, but carries the loosened earth up an inclined plane to the horizontal apron or conveyer by means of scrapers, the whole forming a simple, light, strong, and efficient machine.

Referring to the drawings, Figure 1 is a side elevation of the machine; Fig. 2, a perspective view of part of the same.

A represents the frame of the machine; B B, the engine, boiler, &c., employed to operate it.

C is an inclined plane, up which the earth loosened by the digger is carried by the scrapers E E, which are attached to the chains D D. The earth thus elevated is delivered into an inclined spout, or upon an endless chain or apron carrier.

F is the forward wheel or roller, supported in the end G of the frame A, and capable of

being adjusted up or down by means of a crank, H, and steered by a lever, I, to give direction to the whole machine.

K represents the shaft of the digger, and M M two disks secured thereon at a distance apart nearly the same as the width of the plane C. Two or more bars, N N, provided with curved teeth *o o*, are fixed in notches in the periphery of the disks, with one tooth projecting outside the vertical plane thereof, and twisted or shaped to form cutters, as shown.

Motion is communicated from the engine to the rag-wheels L L by a band or other preferred means, and through these to the digger by the endless chains D D, the disks M M being provided with projections or teeth, which enter the chain-links, so that in effect they operate as rag-wheels.

The scrapers are provided with braces, which are pivoted to the chains, as shown, in order to allow the necessary flexibility of parts.

In practice the weight of the machine forces the digger into the ground, and rotary motion being imparted thereto by the chains, the machine advances at the same time that the scrapers and incline plane serve to elevate the loosened earth.

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

The digger K M N *o*, endless chains D D, pivoted and braced scrapers E E, rag-wheels L L, and inclined plane C, constructed and arranged, as herein shown and described, to form an improved excavator.

BARNA T. STOWELL.

Witnesses:

THOS. D. D. OURAND,
A. M. TANNER.