

C. H. Moore.

Excavator.

N^o 18,551.

Patented Nov 3, 1857.

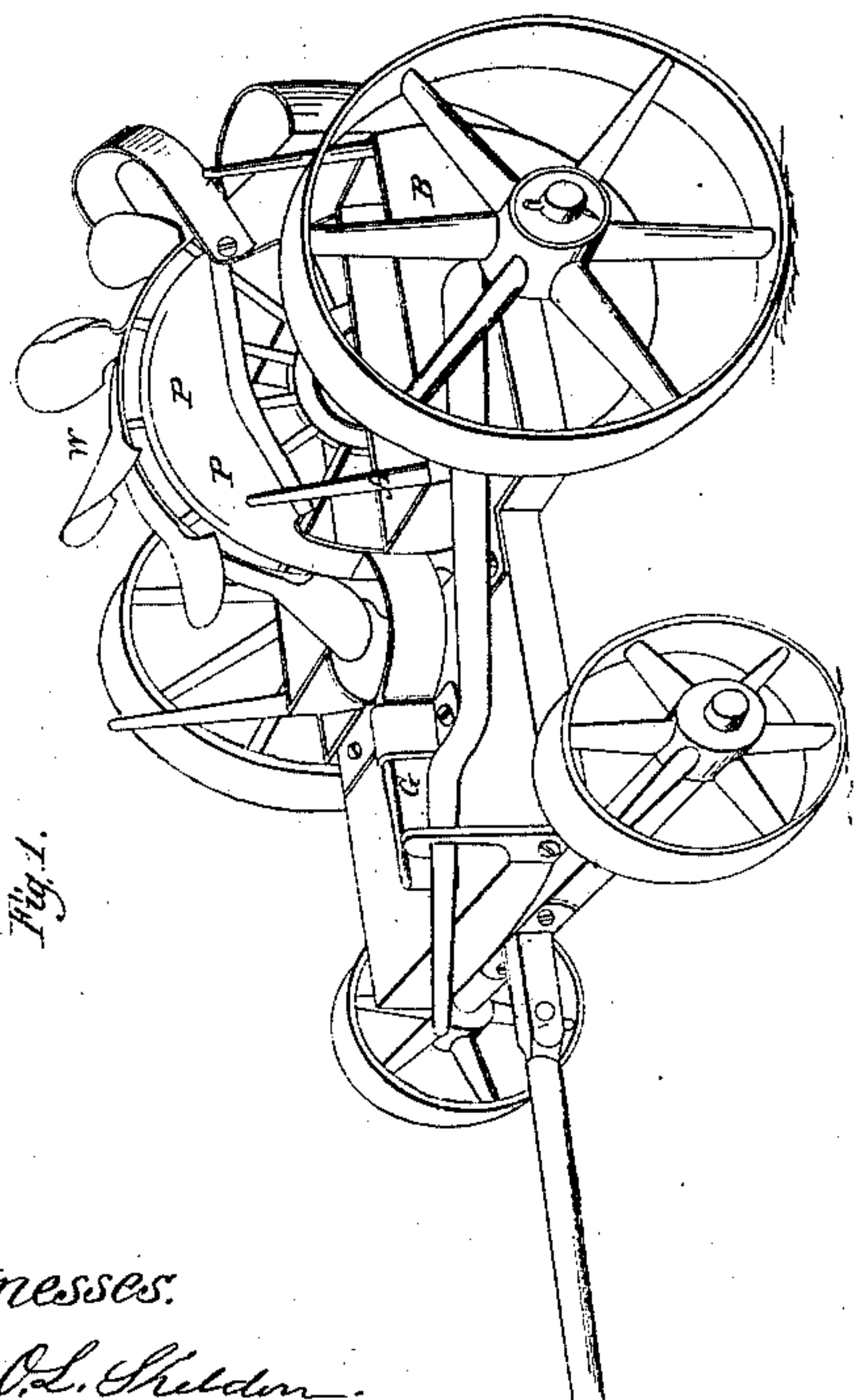
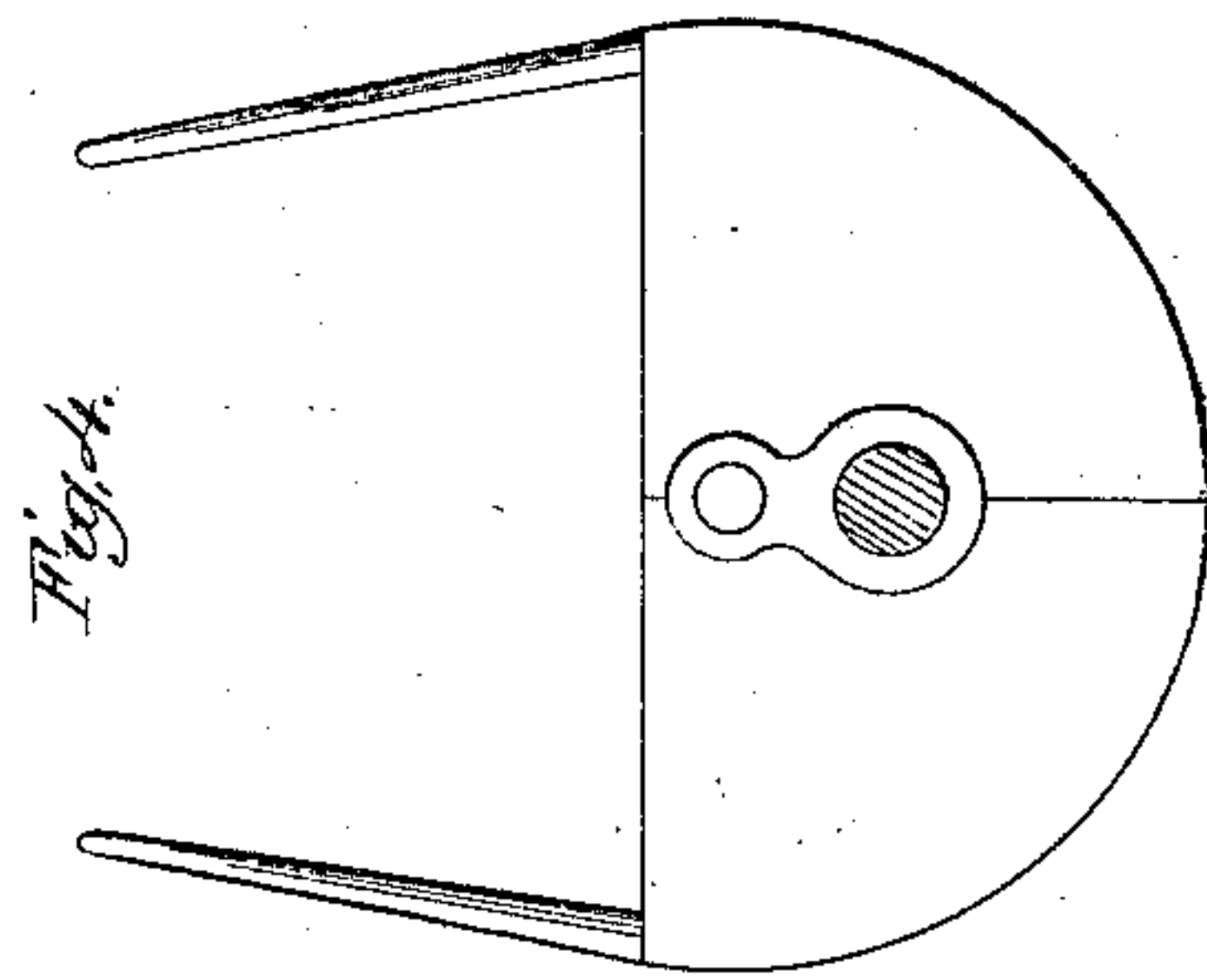
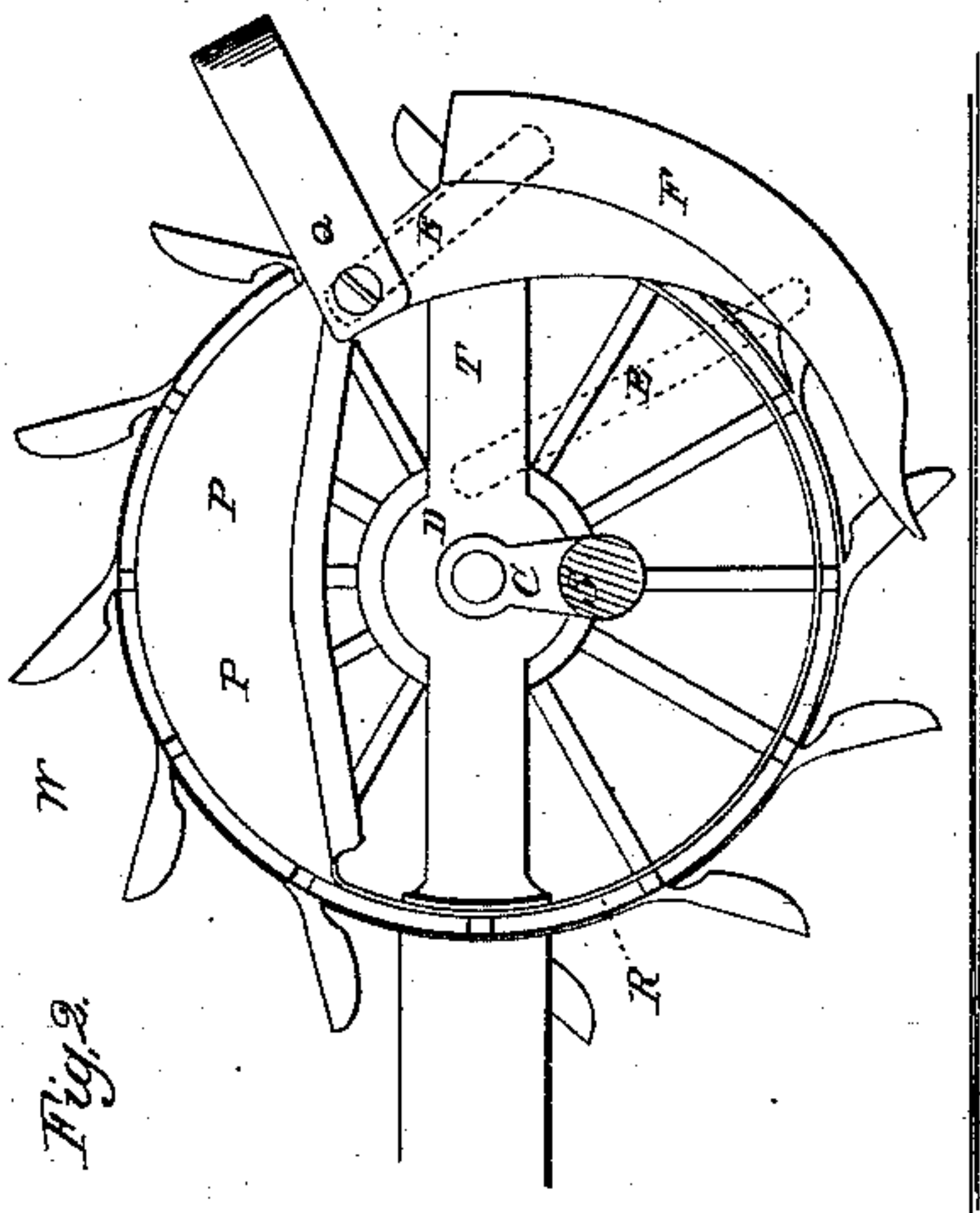
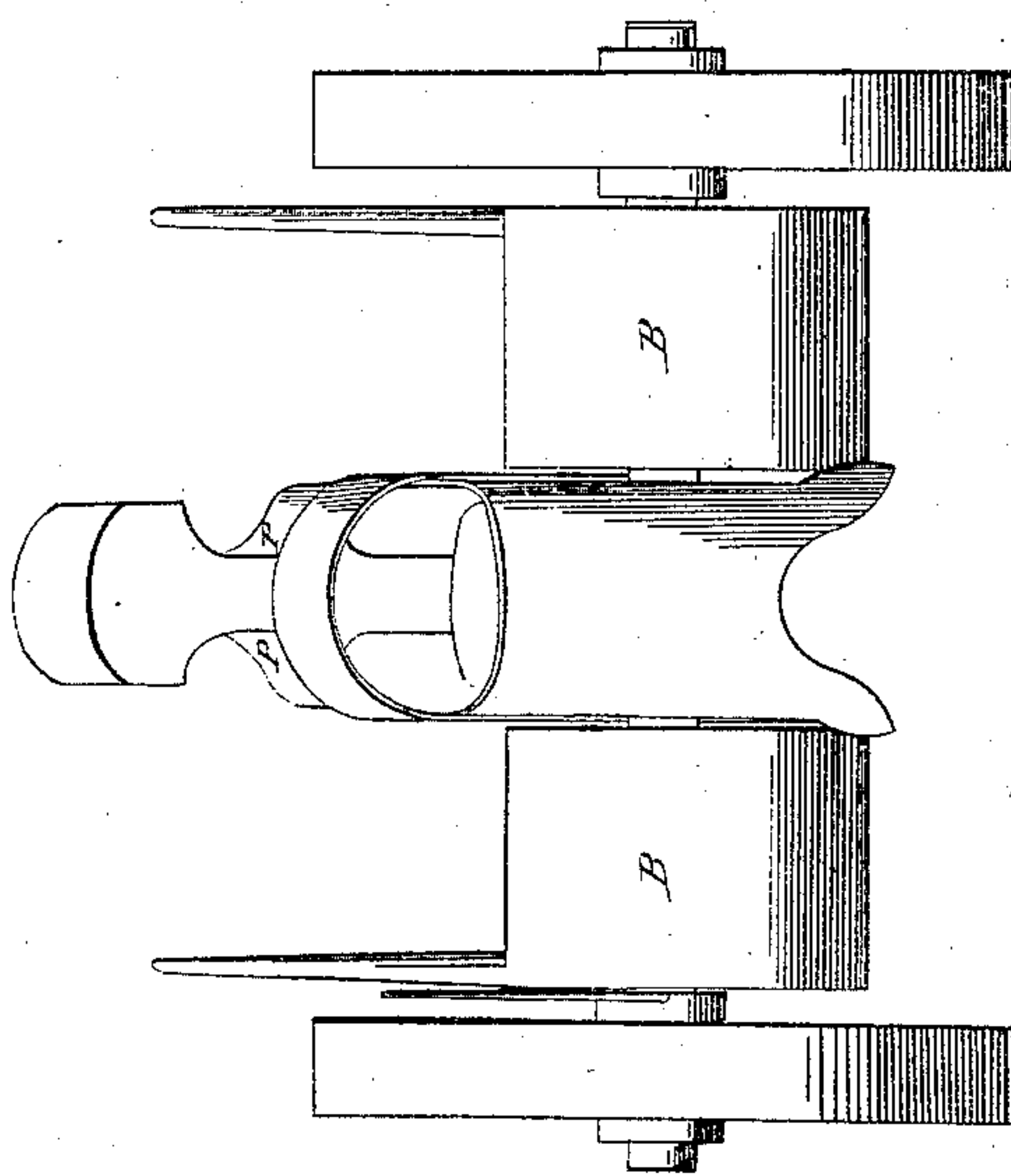


Fig. 3.



Witnesses:

O. L. Sheldon.

W. C. Buell.

Inventor:

C. H. Moore.

UNITED STATES PATENT OFFICE.

G. H. MOORE, OF ROCHESTER, NEW YORK.

ROTARY EXCAVATOR.

Specification of Letters Patent No. 18,551, dated November 3, 1857.

To all whom it may concern:

Be it known that I, GILBERT H. MOORE, of Rochester, in the county of Monroe and State of New York, have invented a new and useful Machine for Excavating Earth; 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 annexed drawings, making a part of this specification, in which—

Figure 1, is a perspective view of my machine. Fig. 2, is a side view of the part used for digging. Fig. 3, is an elevation of the rear end. Fig. 4, is a side view of the mechanism designed for carrying and unloading the earth.

This machine consists essentially, as will be seen per Fig. 1, of a series of spades or shovels attached to the periphery of a wheel and so arranged that they may be raised or lowered at will. The wheel, W, (Figs. 1 and 2), to which these spades or shovels are attached, revolves upon the wrist of the crank, C, of the shaft, S, (Fig. 2), which forms the axle of the hind wheels. Concentric with the disk of the wheel, to which the spades are attached, is the ring, R, (Fig. 2); to the upper side of which, are affixed the inclined planes, P, P, (Figs. 1, 2, and 3), upon which the earth falls from the spades or shovels, and whence it slides into the carriers or receivers, B, B, (Figs. 1 and 3), placed on each side. Attached to the ring, R, is the tongue or guide, G, (Fig. 1), which slides through a guide on the front part of the excavator, and prevents said ring from revolving and materially changing the position of the inclined planes, P, P. Attached to the posterior part of the ring, R, or its brace, T, (Fig. 2), is a curved shield, F, bending partially around the spades, and suspended by one or more points, in the ring R, or its braces; said point or points, being eccentric to the digging wheel, W. The mode of attaching said shield may be seen in Fig. 2, in which it is represented as suspended from the single point, Q, or from the points, Q, D, by the rods, shown by the dotted lines, E, E.

The shield, F, projects forward under the wheel, W, nearly or quite to its point of contact with the ground. The points and anterior portion of the said shield, are curved outward in a manner similar to the share and mold-board of a plow.

The carriers or receivers are made in two

parts of nearly equal size, which are suspended from an upper corner, by a hinge common to them both. The line of separation between these two portions of the carriers runs perpendicularly or nearly so. The object of constructing them in this manner is two-fold, viz: to enable the upper edges of the carriers to be brought lower down to receive the earth more quickly from the center or digging wheel, and to allow of their being opened at the bottom to be dumped.

The action of this machine is as follows: The digging wheel at the center being dropped on the ground, rolls forward, the points of the spades being pressed into the earth by its weight. The shield, F, fills the spades in consequence of its shape, at the anterior part, and retains the earth upon the spades, as they rise, by its shape at the posterior part. The earth leaves the spades by its own gravity, and falls upon the aprons or inclined planes, P, P, and is thereby conveyed into the carriers, B, B. When a sufficient quantity has been loaded, the center or digging wheel, is relieved from its work, by elevating the crank, C, by a lever or other power. The earth is emptied from the carriers or receivers, by pressing the levers, A, A, (Fig. 1), at each end of said carriers, toward the axle. The shield, F, being suspended, as above described, will move off from the spades in case any obstruction like a stone or other substance, should accidentally come between the edges of the spades and the said shield, during the process of digging, thus preventing any chance for clogging the machine in doing its work.

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

1. The construction of the carriers, or receivers, as above described, viz: the support and hinging of the bodies upon the axle in such a manner that they may be dumped by elevating the two extremities.

2. The construction and mode of attaching the shield, F, by either of the methods, substantially as described.

3. The combination of the digging wheel, the carriers and the shield, for the purposes above set forth.

G. H. MOORE.

In presence of—

R. E. BREWSTER,
GEO. M. POND.