

D. Close, Excavator,

N^o 43,392.

Patented July 5, 1864.

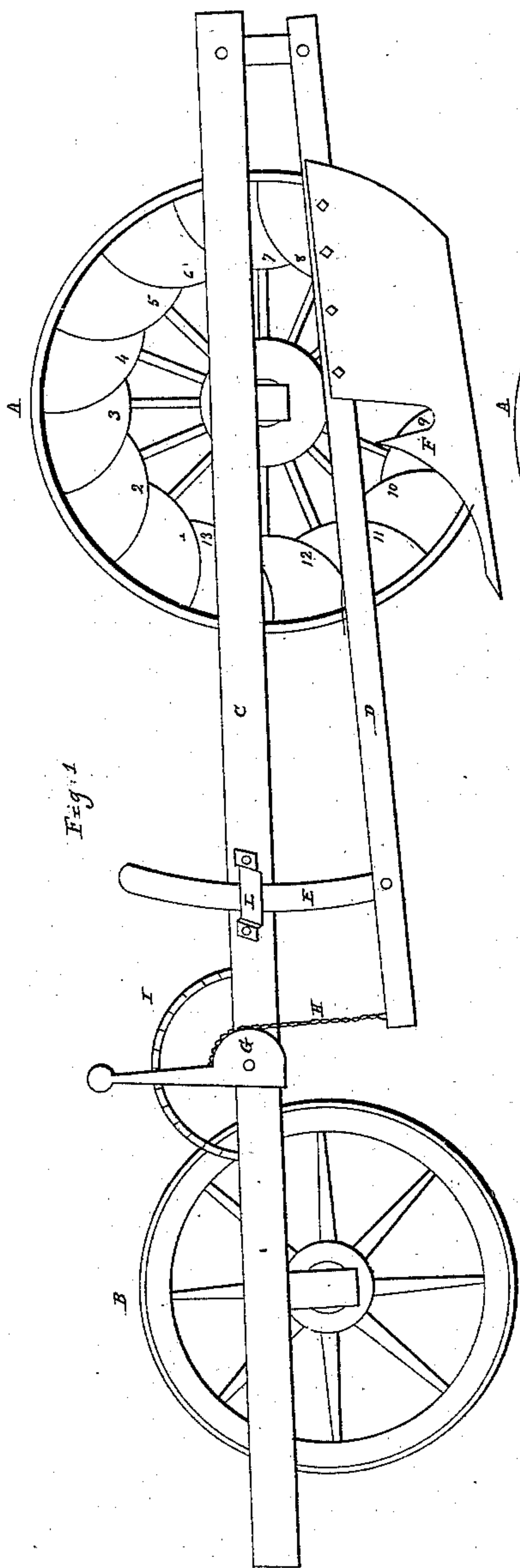


Fig. 1

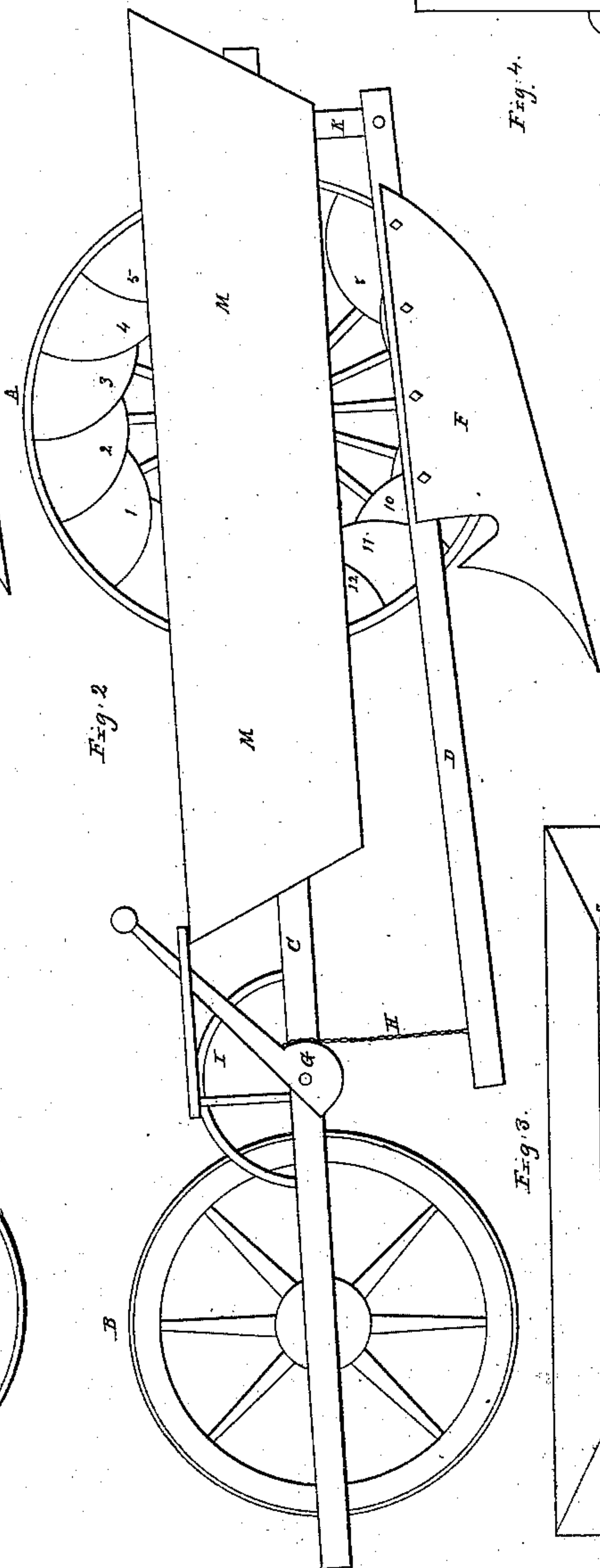


Fig. 2

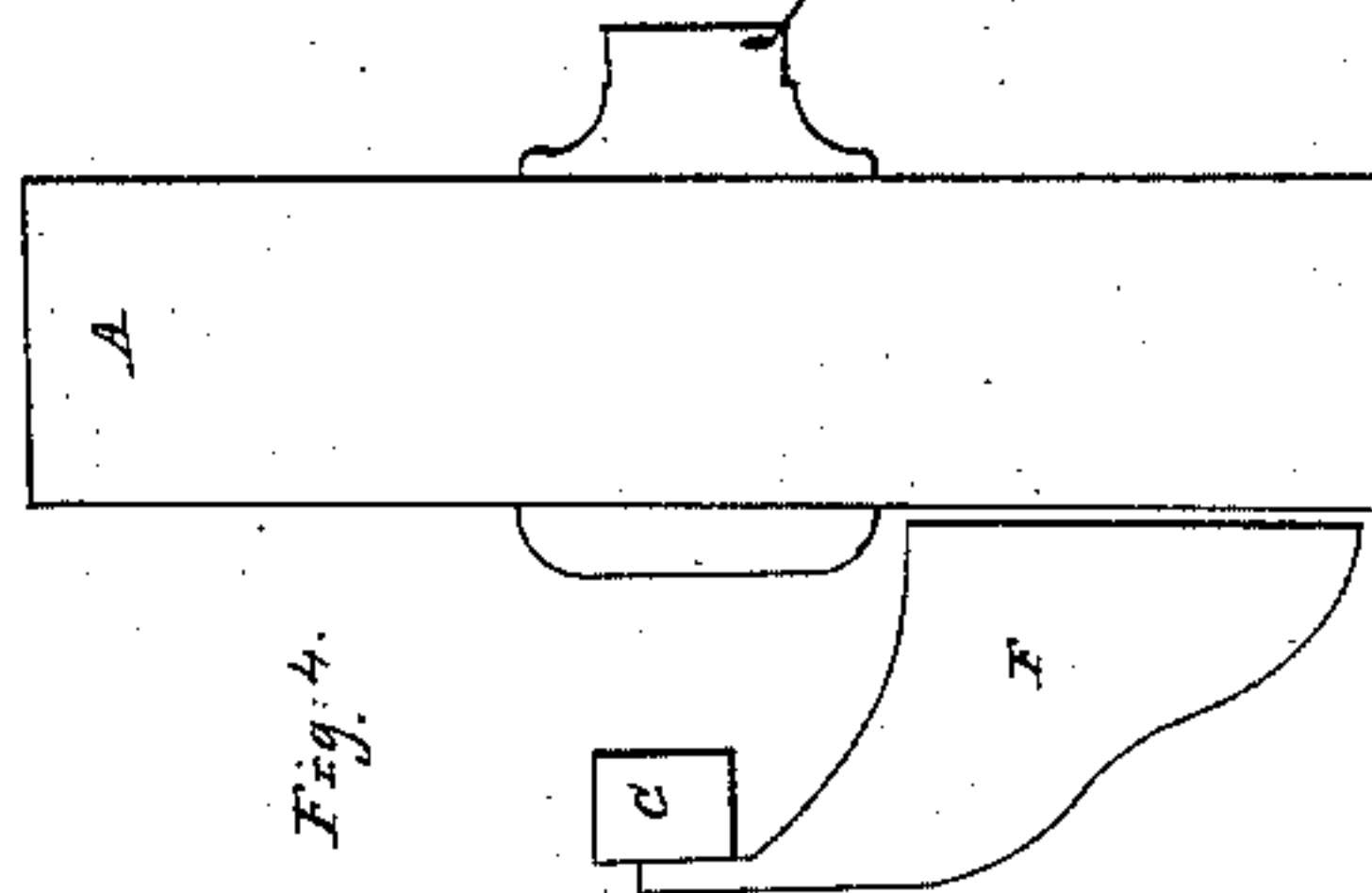


Fig. 4

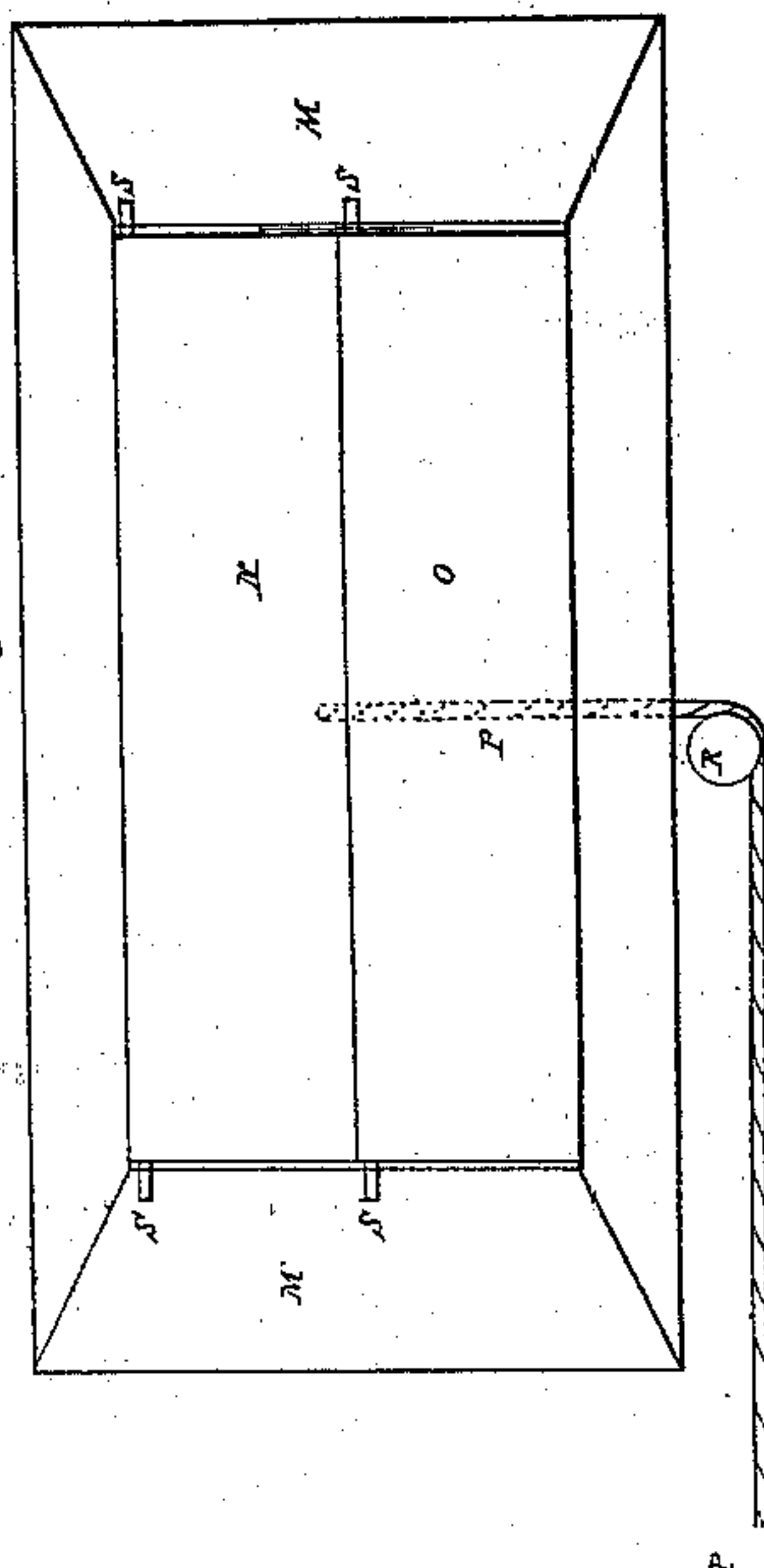


Fig. 3

Witnesses:

A. B. Richmond
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Inventor:

Daniel Close

UNITED STATES PATENT OFFICE.

DANIEL CLOSE, OF HARMONSBURG, PENNSYLVANIA.

IMPROVEMENT IN EXCAVATORS.

Specification forming part of Letters Patent No. 43,392, dated July 5, 1864.

To all whom it may concern:

Be it known that I, DANIEL CLOSE, of Harmonsburg, in the county of Crawford, State of Pennsylvania, have invented a new and Improved Excavator; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon.

Figure 1 is an inside view of my invention, one-half of the same of like construction being removed so as to better show the same.

My excavator is constructed in its general form like a common two-horse wagon. A is the "hind wheel," and B the "fore wheel," thereof. The hind wheel, A, has a very broad tire, from one foot to any desired width, as shown at A, Fig. 4. Between the spokes of this hind or excavating wheel are bolted the "elevators" 1 2 3 4 5 6 7 8 9 10 11 12 13. These elevators may be of any proper shape and size to best suit the size of the machine and the kind of soil to be excavated. In the drawings they are represented like a common "scoop." These elevators extend through the thickness of the wheel. The open end of the elevators are on the inside of the wheel, while the outer ends are closed.

F is a plow, with the back end of the "mold-board" bent toward the wheel A, as shown at Fig. 4, so that the excavating-wheel revolves so near to the mold-board as to prevent any dirt escaping between them. This plow F is bolted on a "lever," D, which lever is suspended from the "wagon-bed sill" C by a joint at K.

E is a semicircular guide passing through the clasp L, which serves to keep the lever D steady when the same is raised or lowered by means of the chain H and the lever G. This lever G is kept in any desired position by means of the iron circle I, which is notched on the inside, so as to receive and hold the lever G. By means of this lever D and the chain H and the lever G the plow can be

raised and lowered at pleasure. It can be drawn out of the ground, or adjusted so as to make the furrow of any desired depth.

Fig. 2 shows the plow F lowered down to near the position while excavating.

M M, Fig. 2, is a side view of the dirt-box as the plow enters the earth. The dirt is kept in the plow—*i. e.*, between the plow F and the wheel A, and as this wheel revolves the excavators become filled with dirt, and by the revolution of the wheel A the dirt is carried up and emptied into the dirt box M M.

Fig. 3 is a top view of the dirt-box, showing the construction of the bottom for unloading the dirt.

N O are two valves as large as the whole bottom of the dirt-box. A rope, P, is attached to the valve N and passes under the valve O, and around a pulley, R, on the bed sill C, or any other suitable place. It then passes forward and is attached to a lever like the lever G, or any other obvious mechanical device. The valves N and O are hung on pins *s s s s*, so that when the rope P P is slackened the weight of the dirt opens them. When the rope P P is pulled, the valves are closed.

Fig. 1 only represents one half of my excavator. The other half is constructed exactly like the half described, except that there is only one dirt-box to two excavators and plows, the box being between the wheels, they emptying into it from each side.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is as follows, to wit:

The dirt-box M M, with the valves in the bottom N O, constructed as described, in combination with the plows F and elevators A, the whole when combined for the purposes set forth, and constructed as described.

DANIEL CLOSE.

Witnesses:

A. B. RICHMOND,
REUBEN NEUHARD.