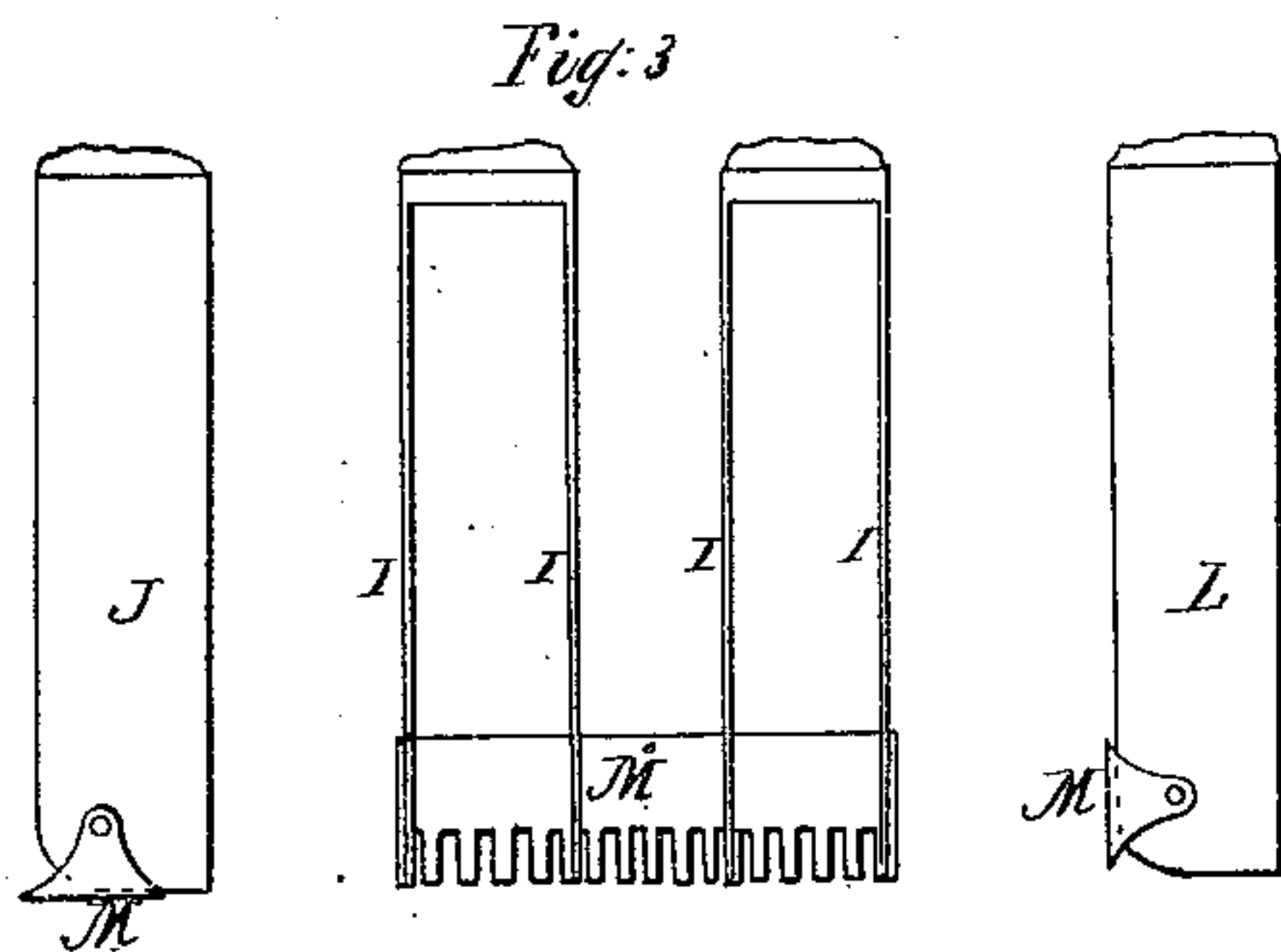
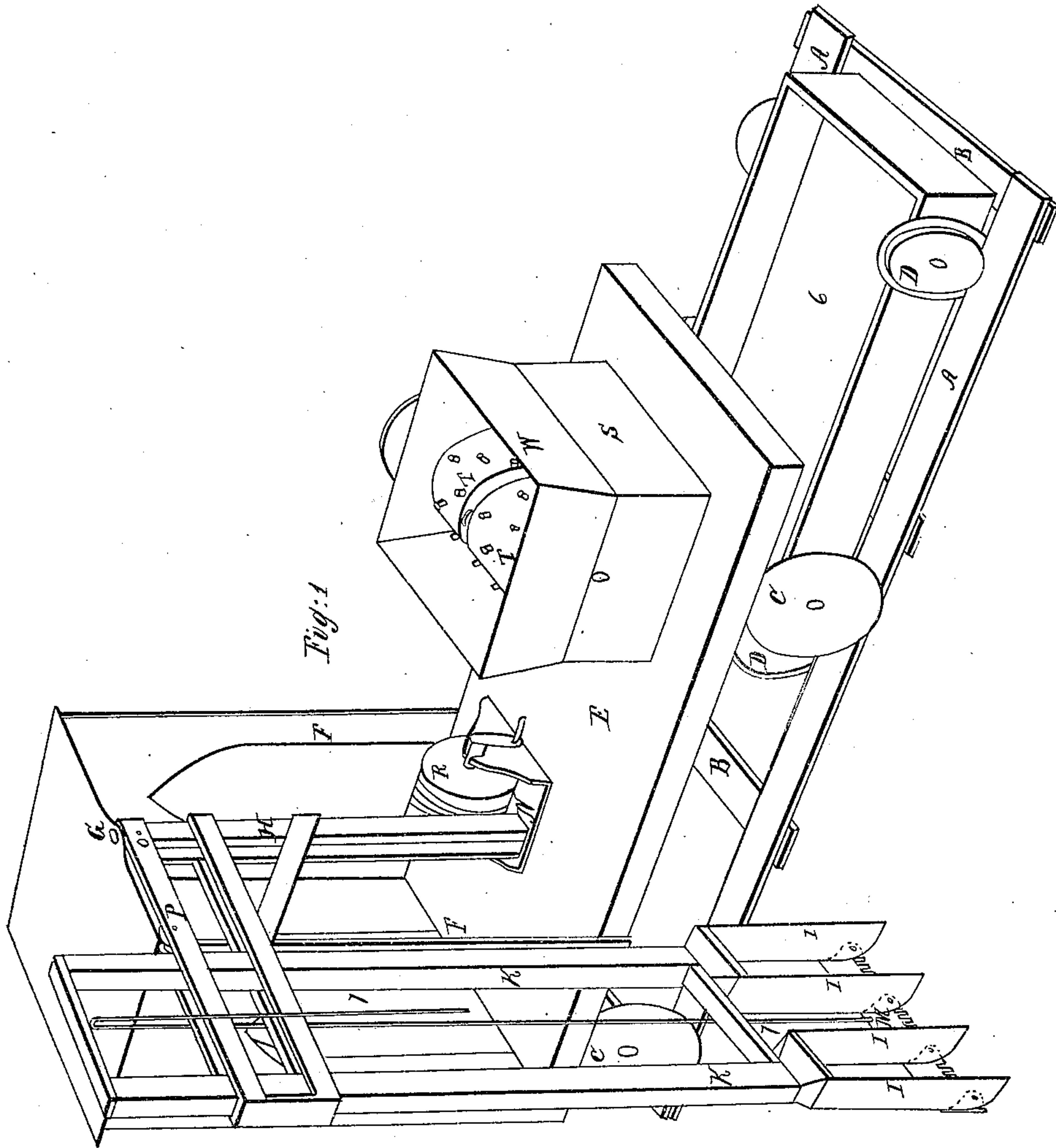


A. Fitts.
Excavator.

N^o 14,716.

Patented Apr. 22, 1856.



UNITED STATES PATENT OFFICE.

ABRAHAM FITTS, OF WORCESTER, MASSACHUSETTS.

MACHINE FOR DIGGING PEAT.

Specification of Letters Patent No. 14,716, dated April 22, 1856.

To all whom it may concern:

Be it known that I, ABRAHAM FITTS, of the city and county of Worcester and State of Massachusetts, have invented a new and useful Machine for Digging Peat; 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 drawings herewith presented, and to the letters and figures herein denoted, in which—

Figure 1 is a perspective view. Fig. 3 shows the form and parts of the digger.

My invention consists of the following parts: first, an apparatus for digging the peat consisting principally of a number of parallel blades secured to a stem or handle, and a movable one to cut the remaining side and to turn under the ends of the parallel blades cutting off the bottom and holding the cut portion between the blades when they are raised.

To construct my invention, make a track or railway with two flat rails A A (see drawings Figs. 1 and 2) wide enough for a wheel to run on each edge of a rail; connect these rails by crossties B, B, as often as necessary to keep them in place; make the car E with its wheels C C with flanges outside so as to run on the outside edge of the rail A, and having two uprights F, F, to support the piece G which sustains the upper end of the crane H. The crane H is made with pivots at the top and bottom so as to turn around and bring the digger over the mixer. The digger is made up of two or more blades *i, i, i*, Figs. 1 and 3 connected at the top to the stems K, K, and having the back corner at the bottom rounded as shown at L, and J, for the movable knife or fork M, to play around, the knife M is made with thin arms by which it is attached to the blades *i, i*, by pins which make the centers for it to turn on, the position of these pins on the plates *i, i*, will vary according to the tenacity of the material, to be cut and held between the plates, though in most cases they may be placed a little back of the middle of the blade and about the same from the end as from the back. The knife M or fork as it may be, may be made with prongs as in the drawings or its lower edge may be straight

or serrated, in either case its whole length is made sharp to cut like the ends of the blades *i, i*, when they are forced into the peat, the knife M being in the position shown at L. To the upper part of M fasten the cord 7, passing up to the upper part of the stems K through a staple or pulley and down in front as in Fig. 1. This digger is arranged to slide in the end of the crane H and has cords or chains fastened to the stem K near the top and bottom and passing over pulleys at P, O, and N, to the windlass R, or similar device to force the digger down and raise it up.

The operation of the machine is, as follows: Having laid the track A A alongside of where it is to dig run the car E to place with the crane swung so as to bring the digger where it is to cut which is then forced down the knife M being in the position shown in Fig. 1, this cuts the back and the blades *i, i, i, i*, the sides (and for the first cut it will be necessary to cut the front with a spade or similar tool but the others of the series will not need anything but the digger) having cut the desired depth on raising the digger the knife M catches by its adhesion to the uncut peat, and turns under the ends of the others cutting off the bottom and holding the whole between the blades *i, i*, the knife M being in the position shown at J, Fig. 3, then raising the digger with its load up and swinging the crane around so as to bring it over the mixer and pulling the cord 7 it turns the knife M from under the peat and allows it to fall into the hopper W when the crane may be swung back and another cut taken advancing the cars as often as necessary for convenience in cutting, thus preparing the peat in the best manner and giving every facility to carry it off even if the meadow be covered with water the digger working equally well under water and cutting any desired depth even two or three cuts if necessary to take out the whole peat to the bottom.

The power to work my machine may be either hand power for which purpose cranks are attached to the windlass R and roll T, T, or by the addition of pulleys in lieu of cranks steam or horse power may be used by putting either on a part of the car E, and the movement of the crane either way be

made to move the car for each cut by having a ratchet on one of the wheels and connecting by a rod to the crane, or some similar device, rendering the machine automatic.

5 In some cases it may be necessary to make the arms of the knife M to extend beyond the front edge of the blades *i, i*, and cords or chains fastened to them so that when the digger is forced clear down the knife M may
10 be turned under the bottom by pulling the cords or chains thus insuring a cutting off the bottom in all cases, though in most cases the knife will operate itself.

15 I am aware that cranes are in common use and are old; therefore I do not claim these as such but only in connection with the other parts described in the first clause of this specification.

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

1. I claim the movable knife or fork M as described. 20

2. I claim the digger consisting of two or more blades in combination with a movable knife or fork to cut the third side or
25 sides, constructed and operating as above set forth.

3. I claim the combination of the digger, the crane and the platform or cars to hold them and receive the peat. 30

In witness whereof I have hereunto set my hand in the presence of two witnesses.

ABRAHAM FITTS.

Witnesses:

ABIEL E. WILSON,

JAS. G. ARNOLD.