B. T. Stowell.

Excavator.

No. 5,719. Patented Aug. 22, 1848.

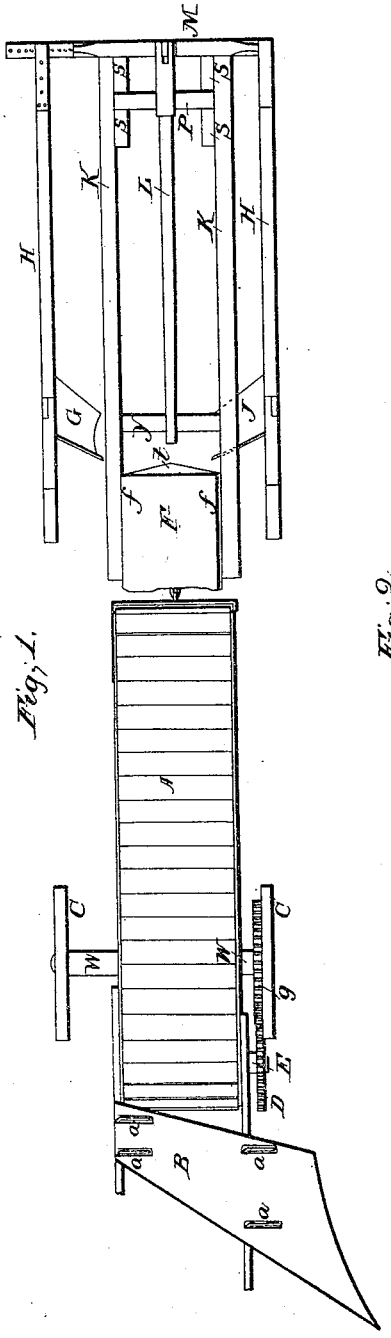

Fig. 1.

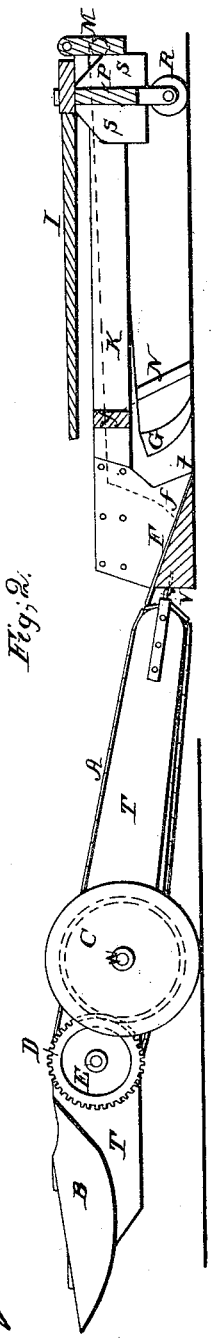

Fig. 2.

UNITED STATES PATENT OFFICE.

B. T. STOWELL, OF WADHAMS GROVE, ILLINOIS.

DITCHING-MACHINE.

Specification of Letters Patent No. 5,719, dated August 22, 1848.

To all whom it may concern:

Be it known that I, P. T. STOWELL, of Wadhams Grove, in the county of Stephenson and State of Illinois, have invented a new and Improved Ditching and Fencing Machine; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a top view, and Fig. 2 is an elevation of one portion, and a vertical longitudinal section of the remainder of the machine.

Similar letters indicate like parts in both the figures.

My ditching and fencing machine is composed of the central plow F; two side plows G, J; an endless inclined revolving floor A; and an inclined adjustable depositing apron B; combined and operating with each other substantially as hereinafter described and represented in the accompanying drawings.

The central plow F, has a pointed horizontal cutting edge *t*, in front, and vertical sides with cutting edges *f*, *f*,—and is secured between the parallel beams K, K. The front ends of the beams K, K, are strongly secured to the cross-head M, and their rear ends are connected by the transverse piece Y. The front ends of the beams K, K, rest upon rollers R, secured and working in the lower edge of the adjustable transverse piece P; the transverse piece P, plays freely between the guiding supporters S, S, made fast to the inner sides of the beams K, K. L, is a lever jointed to the cross-head M, and resting in a recess in the center of the transverse piece P, which serves as its fulcrum. By means of this arrangement of the lever L, cross-head M, and transverse piece P, the front ends of the beams K, K, can be elevated and depressed, and thereby the depth of the cut of the plows regulated. The ends of the cross-head M, project beyond the beams K, K; to which projections the beams H, H, of the side plows G, J, are jointed in such a manner that they may be varied in their position as circumstances may require.

The endless jointed floor A, may be constructed in any well known or usual manner, and is driven by a drum on the shaft E,—having its bearings in the inclined side pieces T, T, of the supporting frame—around which the floor passes, and also around a tension roller having its bearings in the front ends of the side pieces T. The supporting frame of the endless floor rests principally upon the wheels C, C, and the axle W; its front end is connected to the plow frame by a hook and eye, as represented. Pins or cogs, project from the inner surface of one of the bearing wheels C, which work into the cogs on the cog wheel D, on the shaft E, and impart motion to the same.

B, is an inclined adjustable apron secured to the rear projecting ends of the side pieces T, T, in such a position that turf or earth carried up by the endless revolving floor A, will be deposited upon the apron.

The manner of forming two ditches and laying up a fence between the same with my ditching and fencing machine, is as follows, viz: The side plows G, J, are in the first place raised up and their shares are allowed to rest upon the beams K, K; the central plow F, is so gaged and regulated that it will barely take off the turf; the depositing apron B, is so adjusted that it will lay the line of turf, cut by the central plow and carried up by the endless floor, at a suitable distance from the machine. When thus arranged, the machine is moved forward to the required distance, and is then turned and returns on the opposite side of the fence to be formed, leaving a sufficient space between the lines of turf cut and deposited, in going and coming, to be filled in with earth. The machine is next brought into the original starting position, the side plow G, is set to cut a line of turf at the side of that cut by the central plow, and the machine is moved forward and around as in the first instance; the strip of turf cut by the side plow G, is thrown into the central plow which conducts it on to the revolving floor A, and it is deposited by the apron B, on the top of the line of turf cut by the central plow. In this manner I cut two or three strips of turf with the side plow G, and place them one upon the other on the turf cut by the central plow. I then elevate the side plow G, and set the plow J, so as to cut a narrow strip of turf, and deposit the same on the top of those already cut in the manner described. The next process is to set the central and both side plows so that they will take into the earth, and adjust the apron B, so that it will deposit the earth, elevated by the endless revolving floor, into the space between the lines of turf, thrown up in the manner before described. The machine is then car-

ried forward and around until the space between the lines of turf is entirely filled up. The side plows will throw the earth from the sides into the central plow, and thereby will greatly diminish the strain upon the central plow by preventing all lateral pressure.

It will readily be perceived that my machine for ditching and fencing, has this great practical advantage over all other machines that have ever been invented for accomplishing the same object, viz: My machine performs its work progressively, little by little, not attempting to do more at one operation than can be done by an ordinary western farmer's team. Whereas all other machines have attempted to perform the whole—ditch, and fence—at a single operation; and therefore they have invariably failed of accomplishing the object of their construction and have been abandoned.

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

The combination of the adjustable side plows G, J, with the central plow F, the inclined endless revolving floor A, and the depositing apron B, substantially in the manner and for the purpose herein set forth.

B. T. STOWELL.

Witnesses:

PORTER M. SMART,

JOHN C. BELCHER.