(12) **United States Patent**
Currier

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(54) **EXCAVATING & REMOVING EARTH**

(76) Inventor: **Nathan Currier**

Nathan Currier Methuen, Mass

Letters Patent

The Schedule referred to in these Letters Patent and making part of the same Containing a description of the said Nathan Currier's Improvement in a Machine to Excavate and remove earth.

To all to whom these presents shall come Be it known that I Nathan Currier of Methuen in the County of Essex and Commonwealth of Massachusetts have invented a new and useful improvement in a Machine to Excavate and remove earth and that the following is a full and Exact description thereof.

The frame of the carriage is placed on four wheels and may be from eight to sixteen feet long, and from two to six feet wide as may be most convenient the front wheels are fastened with a bolt or pivot so they can turn each way under the carriage the front part of which being curved for that purpose. The front wheels are about three feet in height & the others from two and an half to three feet The frame is composed of four sticks of timber two side pieces about what denominated stone of pine or Maygon but not straight, one each piece called the rocker resting on the front axle tree, and one on the hind axle tree. The timber is of sufficient size to support the Shovel. The front part may have a leg to carry tool in. The frame of the Carriages may contain one two or three Spades as is most convenient. The Spade is somewhat similar in form to the common Scraper it is about four feet in length and can be raised according to the Carriage. It is fastened to the Carriage with bolts or pivots with mortes or legs passing thro the sides of the Spades near the hind end and through the frame in such manner as to allow the Spade to drop down or the Spade to turn over. Where the bolts and pivots pass through the spade and frame, there are two straps of iron one round the Spade and one round the frame to support them and keep them in their place.

The depth of the Spade is equal to about one third of its length. It is made of wood iron and steel, on each side of the spade near the front is a semi circular piece of wood about two thirds of the length of the spade

about one half the depth. They are fastened to the Spade by iron straps and a bar in the Center which passes up through the Cap bar, that lead from one side of the Carriage to the other, and is fastened by Key or pins. The front part of the Spade is connected by Chains, running almost perpendicular and fastened to a rolle of wood or iron so as to raise or sink the Spade at pleasure and to prevent it from turning under. For the purpose of loading the Spade the Keys or pins are drawn from the Center bar, which passes through the Cross bar and the front edge of the Spade droped immediately to the ground. The team is then moved till the Spade fills. it is then elevated to its proper place by means of a Lever or pulley & is there confined by the Keys or pins. The Chains are then unfastened and the team driven to the place where it is to be unloaded and by a Lever and work or pulley it is then turned over. The back cross bars rest on blocks of wood fastened to the frame of the Carriage of sufficient thickness to raise the hind part to the same height as the front Carried part. All your Petitioner Claims as his own invention and not previously patented is the above described. The Claim is the form of hanging and arranging the Spades together with the manner of turning them over to unload. He also Contemplates there may parts of the frame to attach the rollers or pulleys &c. that it may be used for turning Carts in dry Weather

Witnesses

Nathl Mansfield

John Varnum

Nathan Carter

Exd.

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