

## United States Patent Office.

GEORGE TRUMP, OF SECOND FORK VILLAGE, PENNSYLVANIA, ASSIGNOR TO HIMSELF AND GEORGE WILLIAM HUNTLEY, OF SAME PLACE.

## IMPROVEMENT IN MACHINES FOR GRADING AND DITCHING ROADS.

Specification forming part of Letters Patent No. 119,064, dated September 19, 1871.

To all whom it may concern:

Be it known that I, George Trump, of Second Fork Village, Cameron county, State of Pennsylvania, have invented an Improved Adjustable Machine for Scraping, Grading, and Ditching Roads; and I do hereby declare the following to be an exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification, in which—

Figure 1 represents a top view of the machine; Fig. 2, a side elevation of the same; Fig. 3, a rear view of the same. Fig. 4 shows the per-

pendicular hinge.

The nature of my invention consists in the arrangement of the racks, with their slots, projecting eyes, latches, curved brace, and curved iron bar, when constructed and combined with the center draft-bar. The object of my invention is to keep the scraper to the bottom while ditching; prevent the machine from canting to either side; to easily widen or narrow the machine; to regulate its operation to the right or left.

To enable others skilled in the art to make and use my invention, I will proceed to describe its

construction and operation, as follows:

A represents the front and sides of the machine, that are inclined downward from top to bottom. The front end or point is plated with iron, and iron plates B B extend along the whole length of the sides and below the wooden frame or sides A A, the plates B B being securely riveted on the outside of the machine from the joints C C to the rear end of the machine. When the machine is operating upon an inclined surface and the loose earth works upward upon the inclined sides A, the weight of the loose earth tends to keep the scrapers or plates B to the bottom. Through the center of the machine is a drag-bar, D, to which the hitch E is attached, and the front ends of the handles G G are fastened to a short cross-bar, G2, that is bolted to the drag-bar D, while the adjustable racks HH

are supported and braced by it. This bar D supports the machine in front and the curved brace S in the rear, and the latches J J operate in the top of the bar D. The beam K in front is attached to the center bar D by means of a hitch or link, E, and is adjustable between two upright bolts, L L, in an iron frame, m, in which the beam works, so as to regulate the movement of the machine right or left from the center. The adjustable racks H are iron-toothed bars, permanently fastened at their outer ends to the inside of the frame A. They have slots N N, in which projecting eyes P P, bolted below the handles G G, serve as guides and additional supports for the racks H H. The inner ends of the racks H pass through and on each side of the drag-bar D, and when drawn to or from either side they widen or narrow the machine while the latches J J are dropped into the racks and lock them firmly. The latches are pivoted at one end in slots in the bar D, and they are raised or lowered at their opposite ends, which are easily raised by the hand. The handles G G are attached in front by common bolts or pins to a short cross-piece, G<sup>2</sup>, near the hitch E, and behind to posts R R bolted to a curved brace, S, to support the handles. The hinges V are set at an angle to the inclined sides A so as to allow the sides to operate without straining the hinges. The hinges are constructed of straight round rods working in the eyes of bolts permanently fastened into the joints of the frame A.

What I claim as my invention, and desire to

secure by Letters Patent, is—

The arrangement of the racks H H with their slots N, projecting eyes P P, latches J J, curved brace S, and curved iron bar T, when constructed and combined with the center draft-bar D, as herein described and set forth.

GEORGE TRUMP.

Witnesses:

J. FRANKLIN REIGART, EDM. F. BROWN.