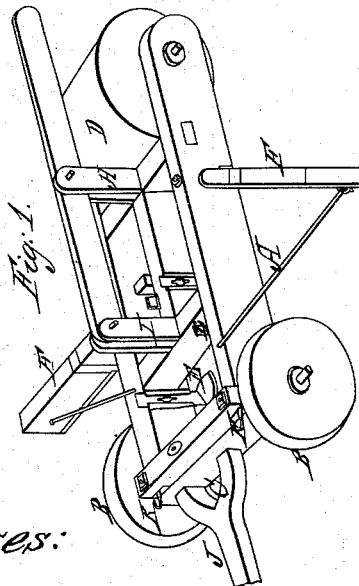
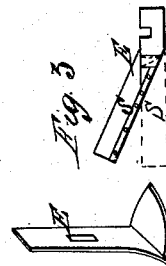
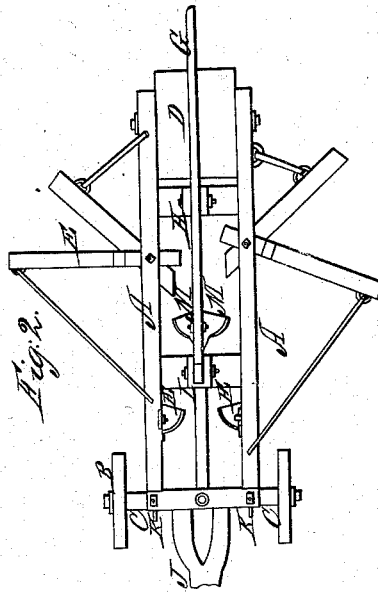


N. Potter,

Scraper.

No. 48,591.

Patented July 4, 1865



Witnesses:

M. B. Russell
J. T. Caldwell

Inventor:

Nathaniel Potter

UNITED STATES PATENT OFFICE.

NATHANIEL POTTER, OF EAST HAMBURG, NEW YORK.

IMPROVEMENT IN MACHINES FOR SCRAPING ROADS AND CLEARING GUTTERS.

Specification forming part of Letters Patent No. 48,591, dated July 4, 1865.

To all whom it may concern:

Be it known that I, NATHANIEL POTTER, of East Hamburg, county of Erie, and State of New York, have invented certain new and useful Improvements in a Machine for Improving Roads and Clearing Gutters at the Sides of Roads; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making part of this specification.

Figure 1 is a perspective view. Fig. 2 is a plan or bird's-eye view. Fig. 3 is a section of a rut-cutter and a scraper with the outer end elevated, to be used on roads that have not been graded and for clearing gutters at the sides of roads.

The same letters of reference indicate like parts.

A A are side pieces of the frame. B B are the front wheels. C is the axle.

D is a heavy roller, which may be of iron or wood. It is provided with proper axes fitted in suitable bushes or bearings in the frame A A.

The cutters E E are made of metal, the blades of which are formed nearly of quadrant shape, and are provided with vertical stocks sliding in grooved plates on the inner sides of the longitudinal bars of the frame, and are attached by bolts which pass through the frame and through the slots in the vertical stocks of the cutter, and are secured by nuts, the said slots allowing the cutters to be adjusted to any required height. The cutter-blades are nearly horizontal, the curved or cutting edges being inclined slightly downward.

F F are the scrapers for removing the loose dirt from the surface of the road, and may be formed of metal, but usually of planks set vertically on edge and shod on their lower front or cutting edges with plates of iron or steel, and are attached to the frame A A by vertical pins, on which they turn freely, so as to be adjusted at any required angle to the center of the frame, and are kept in the required position by iron rods, which are attached to their front sides and have their ends bent so as to catch in holes on the upper edges of the side pieces of the frame, by means of which the outer ends of the scrapers may be both thrown

forward, or one forward and the other back, according to the direction dirt is required.

G is the pressure bar or lever, attached by pins to posts H and I on the frame.

J is the tongue or pole attached to the leading-axle C.

M M are two additional cutters, attached to the sides of a longitudinal center piece below the lever G, set in a reversed position from the front cutters, and principally used in connection with the scrapers F F, elevated at the outer ends, Fig. 3, for clearing gutters at the sides of roads.

For filling ruts the operation is as follows: The horses or other drawing power being attached and set in motion and the machine brought with its center over a rut in the road, the cutters E E will cut off the ridges on each side of the rut, throwing the dirt from the ridges into the hollow of the rut, the scrapers F F conducting the dirt either into or toward the rut or toward the center of the road, as may be required. The roller D will pass over the loose dirt which has been thrown into the rut, making it firm and solid.

For clearing gutters at the sides of roads, leaving them smooth and of an even grade, so that the water may freely pass off without obstruction, the same machine is used by elevating the outer ends of the scrapers F F at E, Fig. 3, securely hinged for that purpose at R, Figs. 2 and 3, and held back, as described, or by similar rods of iron, T T, back of the outer ends of the scrapers, Fig. 2. The outer ends of the scrapers, when thus raised, are held in the required position by means of bolts S S, Fig. 3, which pass through straps of iron and that portion of the scrapers thus elevated between said straps, the said straps of iron being also securely attached to the sides of the inner portion of the scrapers by means of bolts or screws. Thus arranged and the team or drawing power attached to the machine and properly guided, the cutters or plows M M will move the dirt from the center toward the sides of gutter, to be conducted farther by the scrapers F F, so arranged as to leave the slope between the road or turnpike and the gutter at the angle desired.

This improved scraper will also be found very useful in leveling and smoothing newly-made turnpikes, as well as for filling ruts and clearing gutters at the sides of roads, raising the road gradually to the center, and will be found a valuable labor-saving machine in making and repairing roads in general.

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

The manner of constructing the scrapers, as

described, so that they may be used either for clearing gutters at the sides of roads or for smoothing roads and filling ruts, in combination with the cutters attached to the center piece and other portions of the machine necessary, for the purposes specified.

NATHANIEL POTTER.

Witnesses:

JOHN MEACHEM,
M. B. RUSSELL.