2 Sheets—Sheet 1.

T. B. PARKER.

Combined Plow and Scraper for Roads.

No. 108,176. Patented Oct. 11, 1870.

Fig. 1.

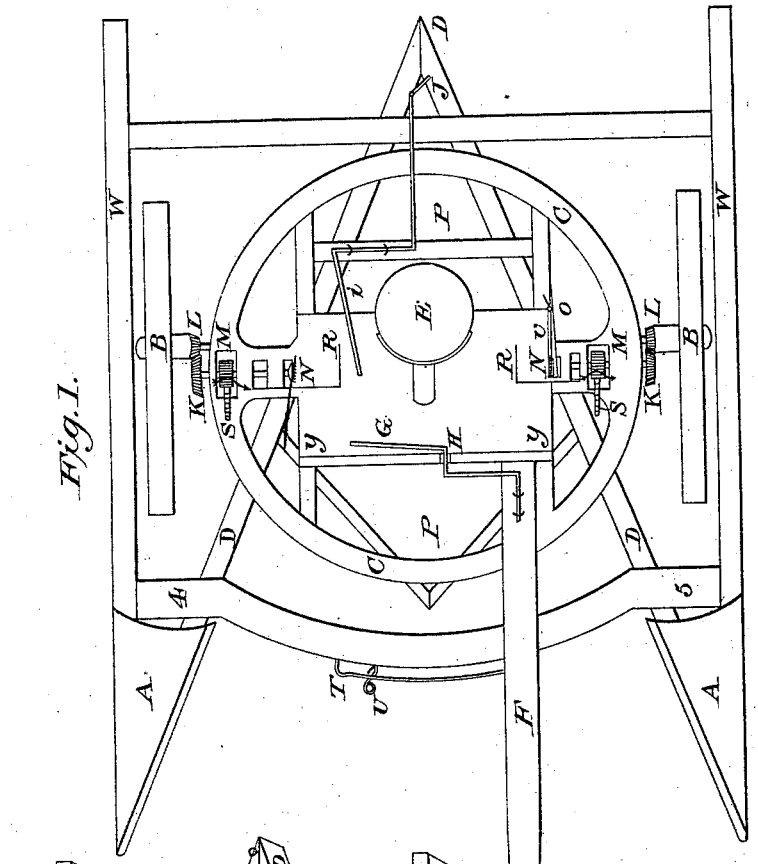


Fig. 2.

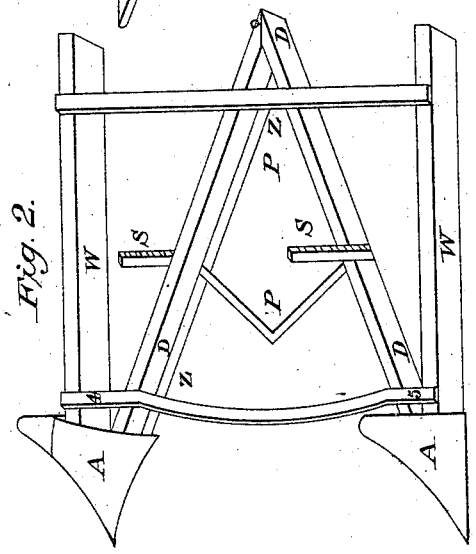
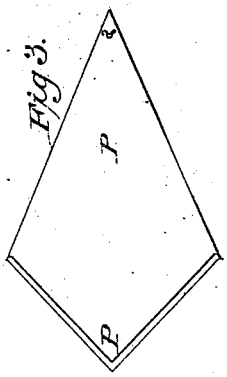


Fig. 3.



Witnesses,
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Roe Dessinger

Inventor:
J. B. Parker

2 Sheets—Sheet 2.

T. B. PARKER.

Combined Plow and Scraper for Roads.

No. 108,176. Patented Oct. 11, 1870.

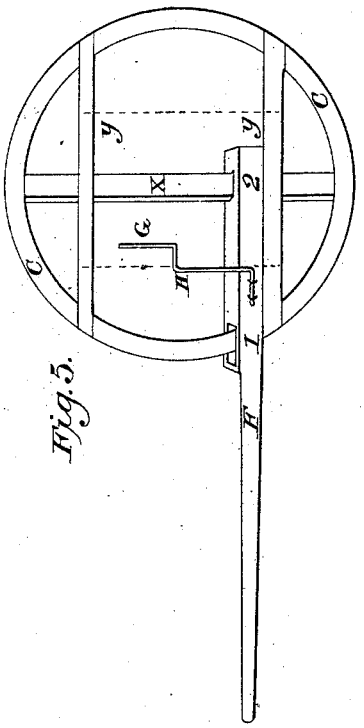

Fig. 5.

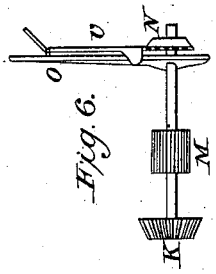

Fig. 6.

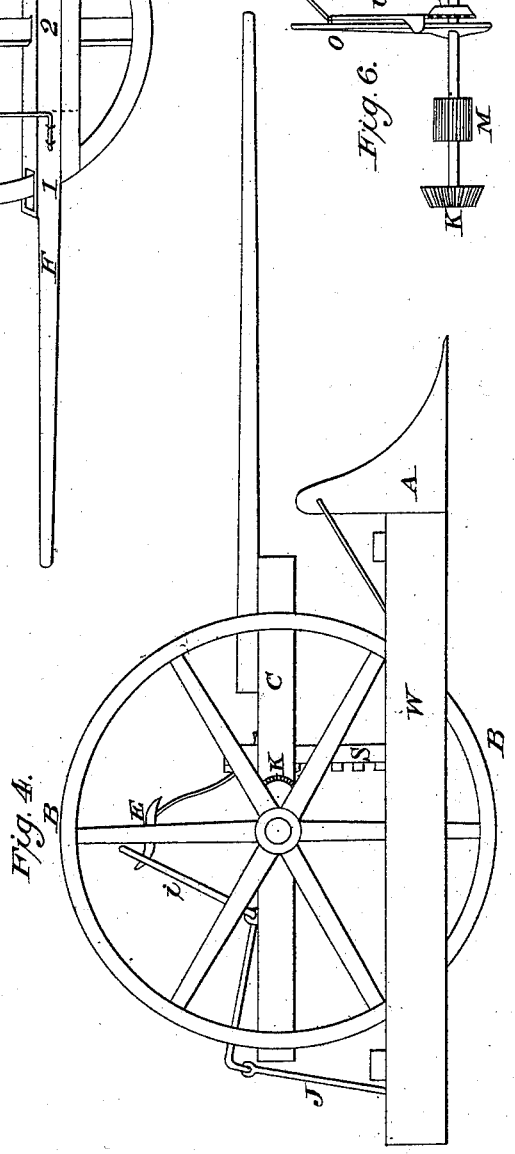

Fig. 4.

Witnesses.

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United States Patent Office.

THOMAS B. PARKER, OF LINESVILLE, PENNSYLVANIA.

Letters Patent No. 108,176, dated October 11, 1870.

IMPROVEMENT IN COMBINED PLOWS AND SCRAPERS FOR ROADS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, THOMAS B. PARKER, of Linesville, in the county of Crawford, State of Pennsylvania, have invented a new and improved "Combined Plow and Scraper" for working roads and grading grounds; and I do hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawing and the letters of reference marked thereon.

Figure 1 is a top view of my plow and scraper.

B B are two wagon or cart-wheels, on which the machine rests.

On the inside of the "hub" of these wheels is a bevel gear-wheel, L.

K is a larger bevel gear-wheel on a short shaft (see Figure 6,) for a view of the same detached from the machine.

This bevel gear may be thrown into and out of gear by the lever O, which, for that purpose, is moved to the right or left, and, at the same time, there is a ratchet-wheel, N, and a sliding "pawl" or catch, V, so constructed that, by raising or lowering the lever O, the cogged wheel M on the same shaft with K may be revolved.

A A are two plows hung on a frame, (see Figure 2,) where the same is detached from the machine to better show its construction.

This frame has two side bars, *w w*, which are constructed so that the wheels B B shall run inside of them, (see fig. 1.)

D D is a frame, shaped like the letter V, with the ends thereof joining *w w* in the plows A A.

P P is a bottom, which may be attached to this frame when it is desired to convey the dirt any distance.

Figure 3 shows this bottom detached, and although this bottom is shown in place in fig. 2, we shall describe the machine as if the bottom were detached, as it is only intended to use the bottom occasionally when the dirt is to be removed to a distance.

On the bottom and inside of the frame D D D is a bar of iron or steel, Z Z, brought to an edge to correspond with the cutting edge of the plow-blade.

Strongly bolted on the frame D D D are two upright supports, S S, which pass up through two slots in the circular frame C C, (see fig. 1,) by the side of the cogged wheel M M, and on the sides of these supports S S are cogged bars, which gear into M M, and by this means, when the wheels M M revolve, the frame D D D is raised or lowered, thereby bringing the plows in contact with the ground.

At the pointed end of the frame D D D is a rod, J, hooked into the frame D D D at one end, and the other on the end of a crooked lever, *i*, (see Figure 4,) which is a side view of my machine, and better shows this device.

The lever *i* comes up near the seat E, and by it the pointed end of the frame D D D can be raised or lowered, to point the plows into the earth, or to drop the dirt, which will pass under this frame.

R R are two levers, constructed of bars of iron, and are bolted by "eye-bolts" to the platform Y Y, which is connected with the circular frame C C, and forms the bed or bottom of the machine.

These bars, at their outer ends, are bent into the shape of a letter U, immediately in front of the cogged bars on the supports S S, and when the levers R R are lifted up bring the crook of the bars into the cogs on S S, and act as a pawl or catch, and serve to keep the frame suspended at the height desired.

The operation of the machine is as follows, to wit:

The bevel gear-wheels K K are thrown out of gear with the wheels L L on the hub of the wheels B B, by means of the lever O, there being a lever O to each wheel-shaft K K. Now, by means of the same levers and ratchets N N, the wheels M M, (see fig. 1,) are revolved, thereby raising the supports S S, and, consequently, the frame D D D, to the desired height. Then, by the lever *i*, the plows are pointed toward the earth, and, as the machine is drawn forward, the plows enter the earth, while the bar Z Z, fig. 2, acts as a scraper. The dirt is thereby accumulated in the frame D D D, as it accumulates in a common scraper, and, when it is desired to "dump" the dirt, the lever O is shoved out, thereby bringing the wheels K K into gear with L L, causing the wheels M M to revolve, thereby lifting the plows and frame D D D up from the earth, letting the accumulated dirt drop.

The levers R R are now operated, which keep the plows clear from the ground until it is again desired to lower them, when the levers R R are turned down, thereby releasing S S from the U-shaped catch, when, by operating the lever O, the plows are again dropped and pointed downward by the lever *i*, as described.

The bottom P P has a cutting edge like the bar Z Z, in front, and is hooked on the under side of D D D, thus forming a bottom to D D D, whereby the dirt can be conveyed any distance required, when it is unhooked and the dirt dumped.

It will be seen that, by this construction, either the right or left plow can be lowered into the earth at pleasure by the levers O, operated separately, and that when the dirt has accumulated in the scraper D D D, by throwing K K into gear with L L, the load of dirt is raised by the forward motion of the machine, and, by the power of the team, at the same time all can be controlled by the hand of the driver.

Figure 5 shows how the tongue of the machine can be shifted from right to left.

X is a cross-piece under the platform Y Y.

Through the end of the tongue F are two mortises, or slots, 1 2. The cross-piece X passes through one, and the circular frame C C the other.

In the edge of the platform Y Y, and in the center thereof, is a notch at H; a lever, G, drops into

this notch, one end of the lever being attached to the tongue F, and when the tongue F is moved to the right side of the machine the lever G is reversed, and thereby holds the tongue on the side of the machine required to suit the draft of the plow intended to penetrate the earth the deepest.

On the front of the frame D D D, W W is a cross-piece, 4 5, and on this a long staple, T, with a hook, U, fig. 1; to this hook the "double-tree" is chained, as the tongue is used either on the right or left side; by this construction the draft is directly on the frame D D D, and not on the tongue.

This scraper is intended for use on roads where, by the construction described, a plow may be used in the "ditch," and the other lifted entirely out of the ground.

What I claim as my invention, and desire to secure by Letters Patent is as follows, to wit:

In a combined plow and scraper, the arrangement of the plow-frame and platform D D D, W W, and P, standards S S, bevel gearing K L, wheels M M, catch-levers R R, lever *i*, and rod J, carriage C, tongue F, and lever G, all constructed as and for the purpose set forth.

T. B. PARKER.

Witnesses:

A. B. RICHMOND,

ROE REISINGER.