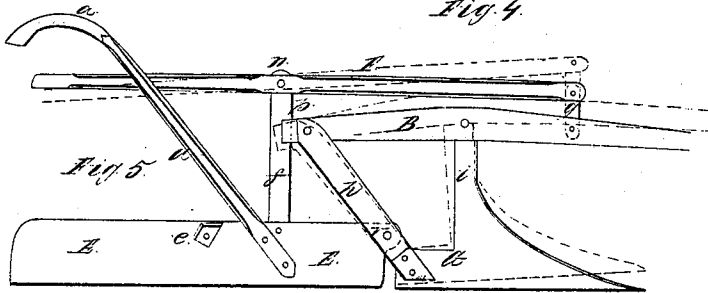
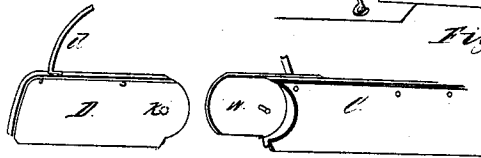
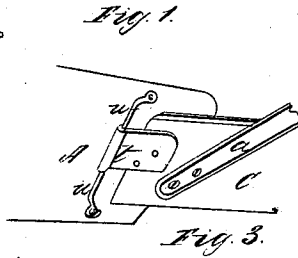
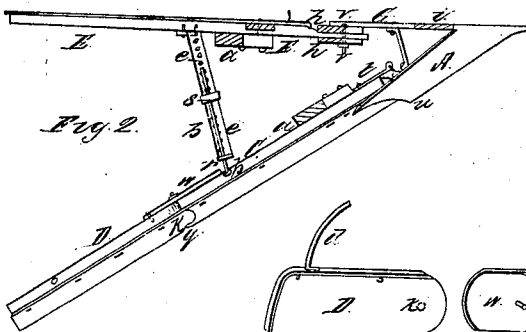
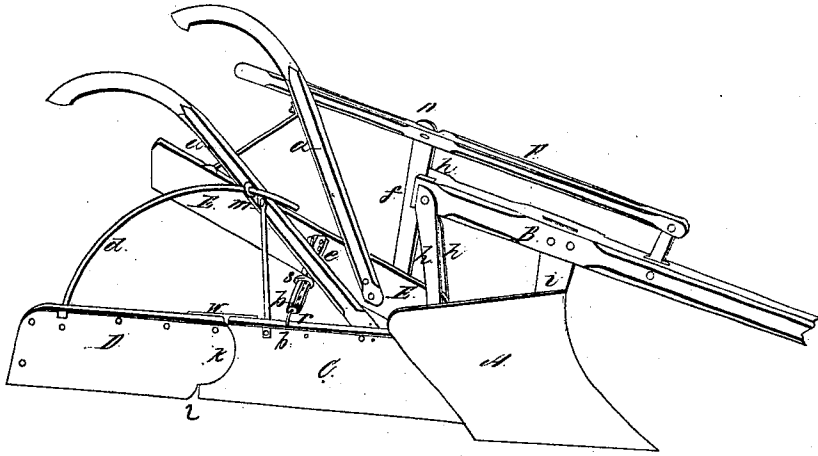


P. M. Stephens.

Road Scraper.

N^o 102,444.

Patented Apr. 26, 1870.



Witnesses:
Henry M. Wells
H. A. Lovett

Inventor:
Perry M. Stephens

United States Patent Office.

PERRY M. STEPHENS, OF DEER CREEK, ILLINOIS, ASSIGNOR FOR ONE-HALF HIS RIGHT TO PERRY M. TUTTLE, OF SAME PLACE.

Letters Patent No. 102,444, dated April 26, 1870.

IMPROVEMENT IN ROAD-SCRAPER.

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, PERRY M. STEPHENS, of Deer Creek, in the county of Tazewell and in the State of Illinois, have invented a new and useful Combined Dirt-Scraper, Excavator, and Ditching-Machine; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the annexed drawings making a part of this specification, in which the letters of reference refer to like parts, and in which—

Figure 1 represents a perspective view;

Figure 2, a plan of the working-parts of the machine, *i. e.*, the mold-board, and its "extension," the land-side and its "extension," &c.;

Figure 3, inside view, in perspective, of mold-board of plow, showing the joint or sliding attachment of the "extension" of the mold-board;

Figure 4, the joint of the extension of the mold-board, outside view, the parts being separated;

Figure 5, inside elevation of "land-sides" and "extension" of the same, with lever for raising the point of the plow from the soil, braces, handle, &c.

My invention consists in the combination and arrangement of the devices, as will be hereinafter explained.

To be more particular—

A represents the mold-board;

B, the beam;

C, the extension of the mold-board, made in two pieces, C D.

The forward end is attached to and slides with an eye, *t*, on an iron rod, *u*, fig. 3, riveted to the inside surface of the mold-board proper, A; the latter overlapping the face of the "extension."

The height of the latter may be less than that of the mold-board proper, made of wood plank, and faced with iron plate; the lower edge of the plate extending below the wood, and slightly bent outward.

D, the tail of the extension mold-board, of similar shape and size, hinged to a plate, *w*, behind the planks, and which plate covers the joint, forming a bearing for the play of the "tail."

A pin or bolt, near the center of the joint, is the pivot *k*.

Both the planks and the iron facing are made with a semicircular joining, embracing the whole width of the flat part of the mold-board extension, but the "facing" is bent backward, at a bevel beneath the joint at *q*, to allow the "tail" to pass this angle behind that of the forerunning "extension" C, when the tail, or rather its rear extremity, falls below the level of the piece C.

This "tail" D can be thrown up out of operation by means of the hinge and guide *d*.

E, the extension of the land-sides, also of wood plank, iron faced, hinged or pivoted at its forward end *v* near the junction of the land-sides proper, G, with the brace *h*, or rather, the pair of braces *h h*, which terminate above at the rear end of the plow-beam B.

F, a lever, supported on the top of a brace, *f*, rising vertically from the "extension" of "land-sides" near the plow-handle *a*, the handle of the lever extending to the hand of the operator near plow-handle *a*, the forward end of the same running forward over the plow-beam and mold-board, connected with the former by a link, *g*.

G, land-sides of plow proper.

a a, the handles of the machine, set almost as in an ordinary plow, and bolted to the wood-work of the "extension" on each side of the machine near the middle of D, and on forward part of the extension of the land-sides E.

b, the rod, on which the eye *r* of the guide *e* slides, the latter being secured to the extension of the land-sides E, and extending toward and running parallel with the rod *b*, and pierced with several holes, to admit the bent end of the rod *b*, when the angle of the extension of mold-board has been adjusted.

d, guide, fastened to the end of "tail" D, and curving upward and passing through a slot or eye, *m*, on the handle of machine *a*, by means of which "tail" D is retained in place or raised from the soil.

e f g h i k m n o have been described above.

p, a slot, cut vertically in the end of the plow-beam B, acting as a guide and stay for the plow-beam, embracing, as it does, the vertical brace *f*, when the point of the plow A is raised from the soil, on going to or leaving the field of operation.

The operation of this invention is as follows, to wit:

In going to the place of operation, the handle of the lever F is depressed, keeping, by this means, the point of the plow, as before mentioned, from entering the soil, in the position indicated by the dotted lines in fig. 5. When arrived at the desired place, the lever is released. The extension C of the mold-board A must then be adjusted, by means of the adjusting-rods and slides *b e s*, to the required angle, either more or less inclined to the land-sides, as may seem best for draft or for space required to be worked over. The "tail" D must be thrown up out of the way, of course, in a narrow excavation or ditch. But, in case of its use, it will, by its weight, accommodate its beveled edge to the slope of the soil or the incline of a road, in road-making, the guide *d* sufficiently bracing it.

Suppose the machine now moving forward, the extension-mold-board C will remain at a level, while the plow A will bury itself, more or less, in the soil, being securely connected with, but having sufficient vertical motion by the iron rod *u* and eye *t*, (see fig. 3.) The

"ring" or "extension" D C rolls or scrapes away the soil raised by the plow A, for a space many feet wide, thus saving the labor of many men and several scrapers to do the same work.

Having thus fully described my invention,

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

1. The lever F, so arranged as to depress or elevate the landside E, as described, in combination with beam B of plow A, substantially as set forth.

2. The mold-board C, with extension D as attached thereto, curved guide *d* and handle *a*, in combination with plow A, substantially as set forth.

3. The lever F, with landside E, having a depressing and elevating motion, and handle *a*, as arranged with mold-board C, provided with handle *a*, and having the extension D adjusted by means of the curved guide *d*, in combination with plow A and beam B thereof, substantially as set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 30th day of August, 1869.

PERRY M. STEPHENS.

Witnesses:

HENRY W. WELLS,
W. A. LOVETT.