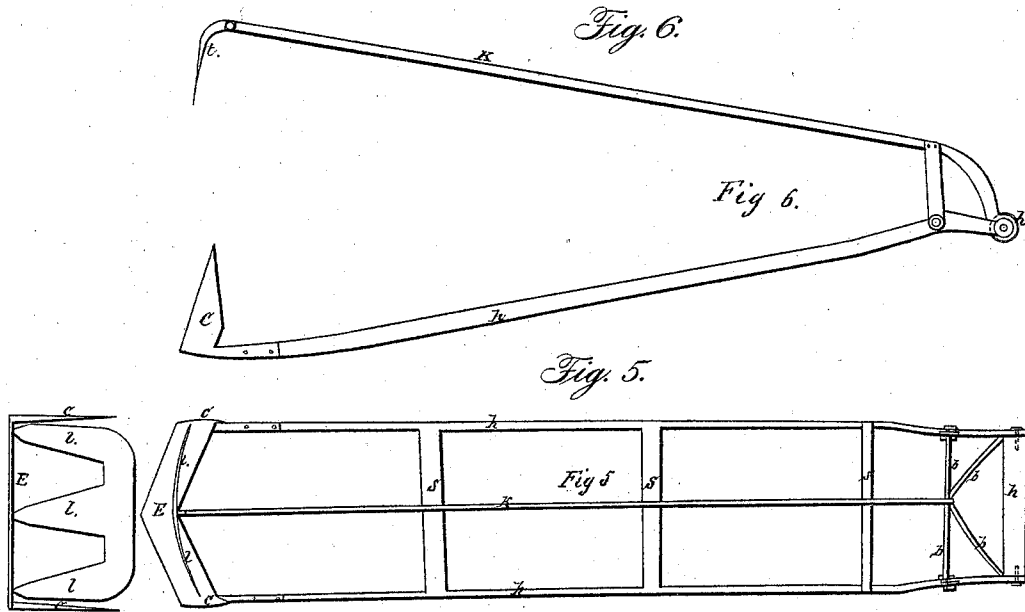
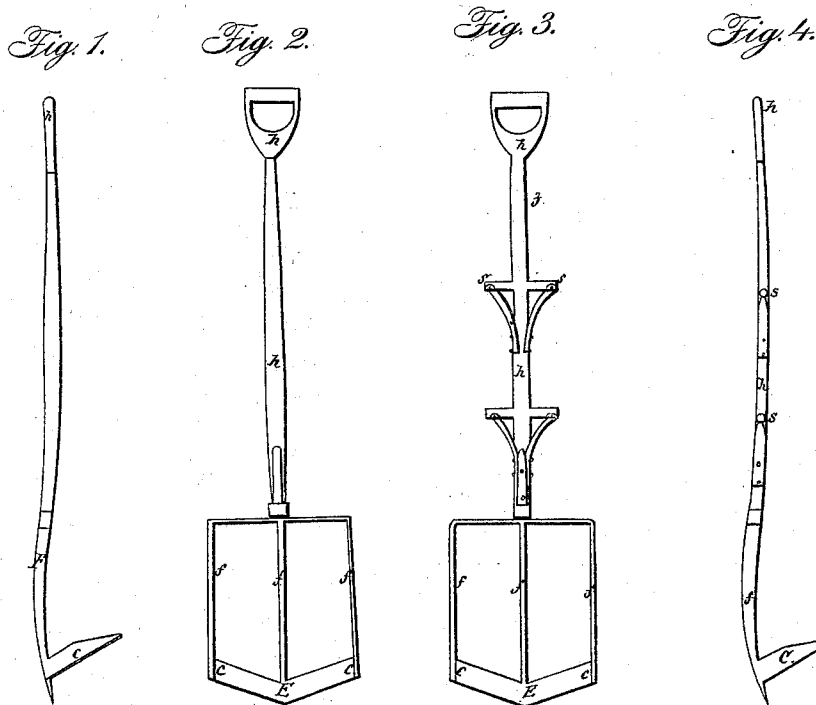


D. STODER.
Ditching-Spade.

No. 11,391.

Patented July 25, 1854.



Witnesses:

Adrian Hegeman

Inventor.

David Stoder
by W. S. Rouman
his Attorney

UNITED STATES PATENT OFFICE.

DAVID STOUDE, OF NEW BURLINGTON, INDIANA.

IMPROVED DITCHING-SPADE.

Specification forming part of Letters Patent No. 11,391, dated July 25, 1854.

To all whom it may concern:

Be it known that I, DAVID STOUDE, of New Burlington, Delaware county, Indiana, have invented an Improved Prairie, Bog, and Blind Ditching-Spade; and I hereby declare that the following is a full and exact description of the same, reference being had to the accompanying drawings, with the letters and references thereon.

It is known that in turning up or ditching prairie or bog lands with spades now in use the laborer is obliged to make two or three cuts down through the grass-roots to free each spadeful, and that when he throws it up, if the soil be wet and heavy, it adheres to the spade, causing further trouble and loss of time in cleaning it. It is moreover known that with the tools now in use, when a ditch for drainage is to be sunk to a depth greater than two and a half feet, it must be made wide enough for a laborer to work in, which adds materially to the cost, while it often cuts up the ground and interrupts passing to and fro, so as to cause great inconvenience.

Now, the object of my improved prairie, bog, and blind ditching-spade is to save time, expense, and labor by so making it that each spadeful shall be cut free and clean at a single downstroke; that when the spadeful is thrown up it shall have but little surface to adhere to on the said tool; and, lastly, that when a deep blind drain is to be cut it may be cut as narrow as may be desired and to any moderate depth by the ditcher standing on the surface of the ground. To attain these ends, first for ordinary shallow spading, I make my spade of suitable size and requisite materials for lightness and strength to suit the work, and give it the form shown in the annexed drawings, (marked Figures 1 and 2,) in which—

Fig. 1 represents a side view, and Fig. 2 represents a front view, of the spade.

In these and all other figures of the accompanying drawings the same letters designate corresponding parts.

h h is the handle; *f f f*, steel ribs, about from three-fourths of an inch to one and a quarter inch deep, one-fourth inch broad on the back and one-eighth on the front. These support the obtuse-pointed broad thin steel bottom cut-

ter marked *e e*. *c c* are two side cutters, of steel, made suitably strong, thin, and sharp, and long enough to cut clean the sides of as thick a spadeful as a laborer can advantageously throw.

Secondly, when the drain is to be cut two or more feet deep, I make the handle of suitable length and affix to its sides and about twelve inches apart iron or other suitable foot-treads, as shown and marked *s s s*, Figs. 3 and 4; or I make the handle in two parts and place the foot-treads between them, as shown in front view, Fig. 5, (marked *h h h*), and the treads as before, *s s s*. I moreover make the bottom cutter so as to place the side cutters, *c c*, a distance apart equal to the breadth required for the drain. To the top of the spade-handle, made according to either of these forms, I attach a hand-hold turning on an axis at right angles to the handle and parallel to the front of the spade, and on this hand, tightly fixed and braced, I fasten a claw-handle, (marked *K K*, Figs. 5 and 6,) reaching down to the bottom cutter, *e*, and having fastened on its lower end a steel claw, having a suitable number of prongs of proper breadth and strength to seize and hold the spadeful when it has been cut and enable the workman to draw it out of the ditch, the claw-handle and hand-hold being so fastened together that when the laborer pulls on the hand-hold he will draw the claw in toward the cutters.

Having thus described my improved ditching-spade, I will now state that I do not claim the invention of bottom and side cutting-edges for ditching-spades, nor of narrow steel ribs as a means of handling sticky muck, &c., with less adhesion; but

What I claim is—

The combination of the obtuse-angled bottom cutter with the side cutters sloping upward, the light steel ribs, the foot-treads on the single or divided handle, and the claw-hook for deep trenching, in the manner and for the purposes above set forth.

DAVID STOUDE.

Witnesses:

JOB S. LUCIEN,
J. R. MOORE.