

(Model.)

2 Sheets—Sheet 1.

J. LAWRIE.

SHOVEL PLOW.

No. 261,001.

Patented July 11, 1882.

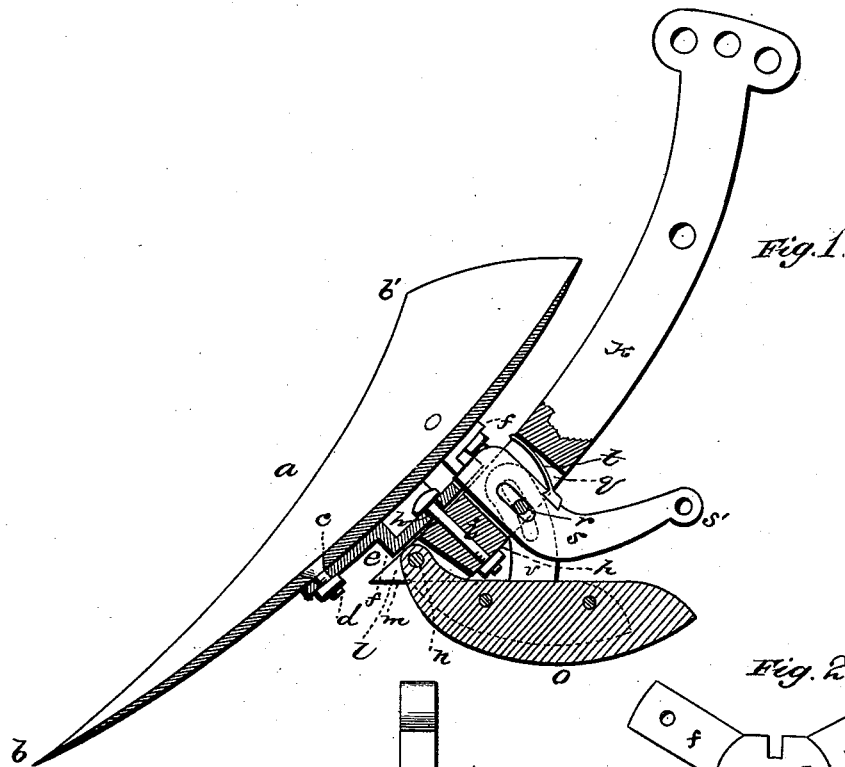


Fig. 1.

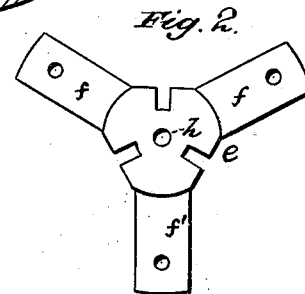


Fig. 2.

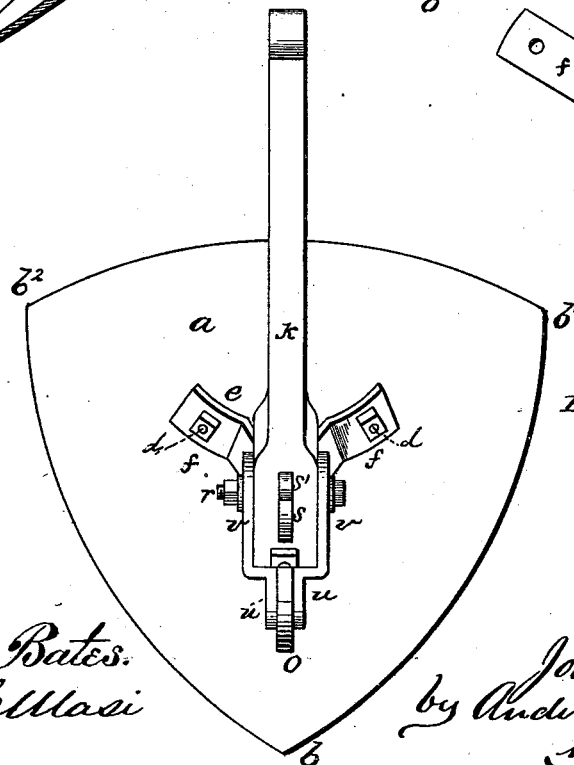


Fig. 3.

WITNESSES
Emory H. Bates.
Philip C. Massi

INVENTOR
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his ATTORNEYS

(Model.)

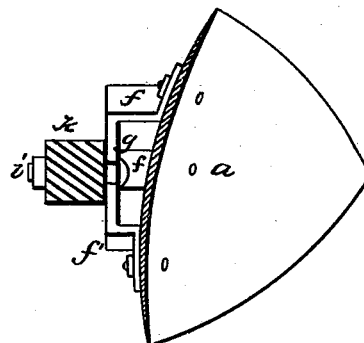
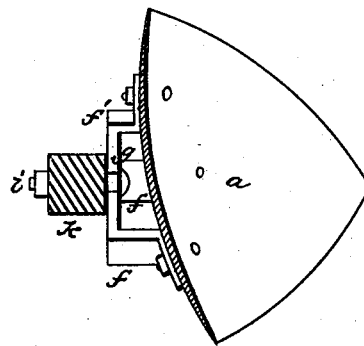
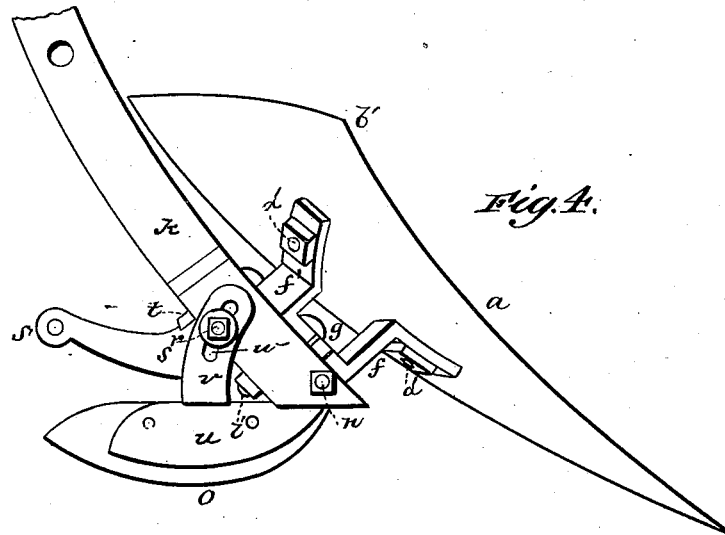
2 Sheets—Sheet 2.

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UNITED STATES PATENT OFFICE.

JOHN LAWRIE, OF BROOKSTON, INDIANA, ASSIGNOR OF ONE-HALF TO
JOHN W. HOLTZMAN, OF SAME PLACE.

SHOVEL-PLOW.

SPECIFICATION forming part of Letters Patent No. 261,001, dated July 11, 1882.

Application filed July 12, 1881. (Model.)

To all whom it may concern:

Be it known that I, JOHN LAWRIE, of Brookston, in the county of White and State of Indiana, have invented certain new and useful Improvements in Shovel-Plows; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, and in which—

Figure 1 is a vertical sectional view, partly in side elevation. Fig. 2 is a bottom plan view of the perforated notched securing-bracket. Fig. 3 is a rear elevation of the plow standard-sheth, keel, latch, and bracket. Fig. 4 is a side elevation of my improved shovel-plow attachment; and Figs. 5 and 6 are sectional detail views, showing the plow-point in position for turning right and left furrows.

The invention has relation to light-draft plows for general purposes intended to be worked in alkaline muck and other loose prairie-soils in place of the landside-plows commonly used; and it consists in the novel construction and arrangement of parts, as will be hereinafter fully described, and particularly pointed out in the claim appended.

Referring by letter to the accompanying drawings, *a* designates the plow-point, which is nearly shield form in its outline, is concave in its face, convex on its back or rear side, and has cutting-edges between three equidistant points, *b b' b²*.

The central portion of the plow point or blade *a* is necessarily made heavier than the edges in order to compensate for wear and to render the point durable.

Three equidistant countersunk perforations, *c*, are made in the shovel or blade for the reception of the bolts *d*, by which the tri-armed bracket *e* is secured thereto. These arms *f, f*, and *f'* are angular, as shown, and rise from the convex face of the plow-point. The arm *f'* is shorter in its vertical dimension than the other two, *f, f*, which are equal in extension from the convex face of the point *a*. This causes the face *g* of the bracket *e* to incline in the direction of the shorter arm, *f'*, for a purpose presently hereinafter explained.

The face *g* of the bracket is centrally perforated at *h* for the reception of a bolt, *i*, by which it is pivoted to the foot of the standard-sheth or auxiliary standard *k*, as shown. The extremity of this foot is beveled forward, and is bifurcated at *l*, and the prongs *m* of the foot are perforated laterally for the reception of a bolt, *n*, by which the forward end of an adjustable keel, *o*, is pivoted in the bifurcation. Above this bifurcation is a solid portion, *p*, perforated to form a bearing for the pivotal bolt *i*, and above this perforated portion *p* is a slot, *q*, traversing the standard *k* from its front to its rear face.

The material of the standard *k* at the sides of the slotted portion is perforated laterally for the reception of a bolt, *r*, upon which a slotted lock or catch, *s*, having an eye, *s'*, at its free end, slides back and forth when operated designedly to shift or turn the plow-point, a spring, *t*, being provided to hold it in a locked position in the notches of the bracket.

To each side of the keel *o* plates *u*, smaller in dimension than the keel *o*, but having a shape corresponding nearly therewith, are riveted, and from the upper edges thereof extend angular curved slotted arms *v*.

The bolt *r* projects through the slots *w* in the arms *v*, and is headed and provided with washers and a securing-nut to permit the vertical adjustment or the removal of the keel *o* entirely when the pivot-bolt *i* has been withdrawn.

The object of the keel *o* is to provide the shovel-point with what is practically an effective landside when right or left hand furrows are to be turned. The object of making it vertically adjustable is to regulate the depth of the penetration of the plow-point to soils varying in quality.

The object in making the keel *o* removable is to permit the point *a* to be used as a shovel-plow, and when thus used the shorter arm, *f'*, of the bracket must be in a line vertical to and parallel with the standard, the latch locking it in place. Taking this position as the normal one, by releasing the bracket by the withdrawal of the catch or latch from its notch and turning the plow-point on its pivot toward the right hand to the next notch in the face of the bracket the plow-point (the keel *o* being in place) will turn the furrow to the left. A reverse turn

from the normal position will cause the furrow to be turned to the right.

The standard is or may be pivoted in the bifurcation of any ordinary standard, and may
5 be perforated at its upper end for the reception of a wooden break-pin.

The plow may be used in gangs, double or single, or otherwise.

From the foregoing description, taken in
10 connection with the drawings, its construction and operation will be readily understood by those skilled in the art to which it appertains.

Having thus fully described my invention,

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

The plow-point *a*, having the perforated
notched bracket *e*, with the angular securing-
arms *f f* and *f'*, the latter having the shorter
angle, in combination with the bifurcated and
slotted standard, the bolts *i* and *r*, and the
20 slotted sliding and locking catch, substantially
as specified.

JOHN LAWRIE.

Witnesses:

JACOB ZIEBACH,
T. HEAD.