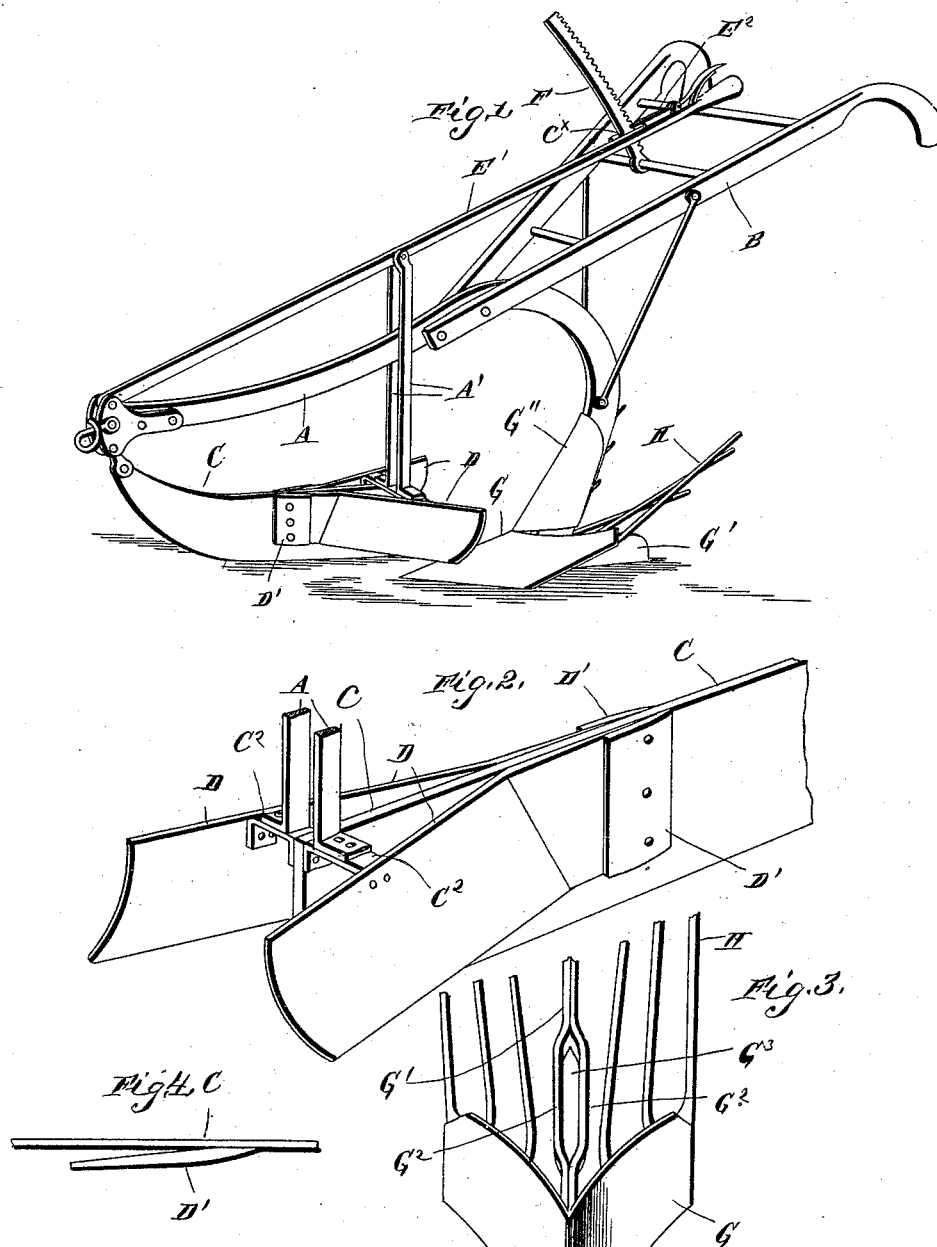


(No Model.)

A. B. PERINE
LISTING PLOW.

No. 421,510.

Patented Feb. 18, 1890.



Witnesses

C. B. Taylor,
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Inventor

A. B. Perine,

By his Attorney

E. W. Anderson.

UNITED STATES PATENT OFFICE.

AARON B. PERINE, OF TOPEKA, KANSAS.

LISTING-PLOW.

SPECIFICATION forming part of Letters Patent No. 421,510, dated February 18, 1890.

Application filed September 30, 1889. Serial No. 325,564. (No model.)

To all whom it may concern:

Be it known that I, AARON B. PERINE, a citizen of the United States, and a resident of Topeka, in the county of Shawnee and State of Kansas, have invented certain new and useful Improvements in Listing-Plows; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of a perspective view of this invention. Fig. 2 is a detail view in perspective showing the back of the cutter. Fig. 3 is a detail view showing the top of the plow. Fig. 4 is a detail view of the plate D'.

This invention relates to improvements more particularly in that class of plows termed "listing-plows," for the cultivation of corn; and it consists of the novel combination and construction of parts, as will fully appear from the following description and accompanying illustration.

In carrying out my invention I employ a beam A, having the usual handles B, and suitable means for the application thereto of the draft.

C is a shoe-shaped cutter having its slightly upwardly-curved forward end pivotally and adjustably connected to the beam A near its forward ends.

D D are wings or shares, which stand or extend rearward and outward from and connect with the cutter C, and which are provided with laterally-extended bottom cutting-edges.

The connection between the cutter and the wings or shares is effected through plates D', which are riveted or bolted at their forward ends to the sides of the cutter some distance inward from its rear end, and stand outward from and form with the sides of said cutter sockets, which receive the forward ends of said wings or shares. The forward edges of the plates D' are thinned or beveled upon the inner sides to cause the same to vanish thereat. The rear edges of the plates D' are also beveled or thinned upon their inner sides, so as to provide for the reception be-

tween said plates and cutter of the wings or shares D, the contracting surfaces or edges of the shares being beveled correspondingly, thus providing for the ready detachment of the shares or wings thereat. The cutter C extends, say, about six inches rearward, as at c, between the shares or wings D D, and to this extension are bolted at their inner ends braces or bars C², which are bolted at their other ends to the inner or under sides of the said shares or wings, effecting the detachable connection of the latter thereto. By means of parallel upright bars or standards A' A' connection is effected between the shares or wings D and a hand or adjusting lever E, which have slotted horizontal arms a a, through which and the braces or bars C² are inserted suitably-nutted bolts b. The detachability of the wings or shares permits of the ready removal thereof for the convenient sharpening of the same when required. The hand-lever E is pivoted to the front end of the beam A and reaches back within convenient grasp of the operator or plowman, and is provided with a spring-pressed handle-pawl E', which engages a segmental rack F, which is fast upon a round of the handles B, and extends through a keeper or guide c^x on said lever. This arrangement permits the vertical adjustment of the wings or shares D with the cutter C.

G is a plow connected to the lower rear end of the beam A at its front edge by a central bar or landside G' and standing in rear of and somewhat below the wings or shares D, a mold-board G'' being also secured to said beam at its front edge just above said plow, but of less width than the latter. The bar or landside G' is formed of two bars or pieces G² G², which are welded together sidewise a certain distance inward from both the forward and rear ends thereof, but which are caused to stand apart intermediately thereof, forming a slot G³ thereat, which receives the lower end of the plow-beam A, which is secured to said landside. One end of the bar or landside G' is fastened to the under side of the plow, preferably by a couple of bolts, and in order to cause it to pass in under and centrally thereof I flatten the same edgewise. This bar or landside also extends some distance in rear of the plow, and has the effect

to steady the plow and to cause it to run smoothly, acting in the capacity of the landside of an ordinary plow.

5 H is a series of upwardly and rearwardly extending fingers or rods which are secured to the rear side of the plow G,—one series upon each side—and inclining or curving inward just in rear of the beam A, and are designed to break up any clods or large pieces, as also
10 to cause all dirt thrown up by the plow to fall in a loose state back into the furrow in rear of the landside. This, it will be seen, has the effect to get rid of all weed-germs and to loosen up the soil, rendering it capable of
15 better results than as heretofore practiced, throwing all the dirt to one side in forming the furrow. This is apparent from the fact that the soil which is removed as in the latter case, and which is the most fertile, is retained
20 or thrown back into the furrow in the use of my plow, and yet the required depth of planting-surface is obtained and the weed and thistle germs are destroyed. All superfluous moisture is carried off, and yet the proper
25 amount is retained and permitted, with the requisite air or ventilation, to readily reach the seed, further enriching the loosened original soil.

30 Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. The listing-plow having the shoe-shaped cutter, the wings or shares having bottom edge cutters fitting at their forward ends in sockets formed by outstanding plates secured to said cutter, the lever pivoted to the beam and connected to said wings or shares, substantially as set forth. 35

2. The listing-plow having the shoe-shaped cutter provided with rearward and outward extended or deflected shares or wings, and means for their adjustment, the plow just in rear of but somewhat lower than said cutter, said plow having secured to its rear side upward and rearward projecting rods or fingers, and a mold-board secured to the plow, substantially as specified. 40 45

3. The combination, with the plow and its standard, of the landside formed of two edgewise-disposed pieces connected together side-wise at their ends and standing apart immediately of their ends to receive the lower end of said standard, said landside being flattened edgewise to cause it to pass in under and centrally of the plow, substantially as set forth. 50 55

In testimony whereof I affix my signature in presence of two witnesses.

AARON B. PERINE.

Witnesses:

JOHN P. ROGERS,
JOHN M. BLOSS.