

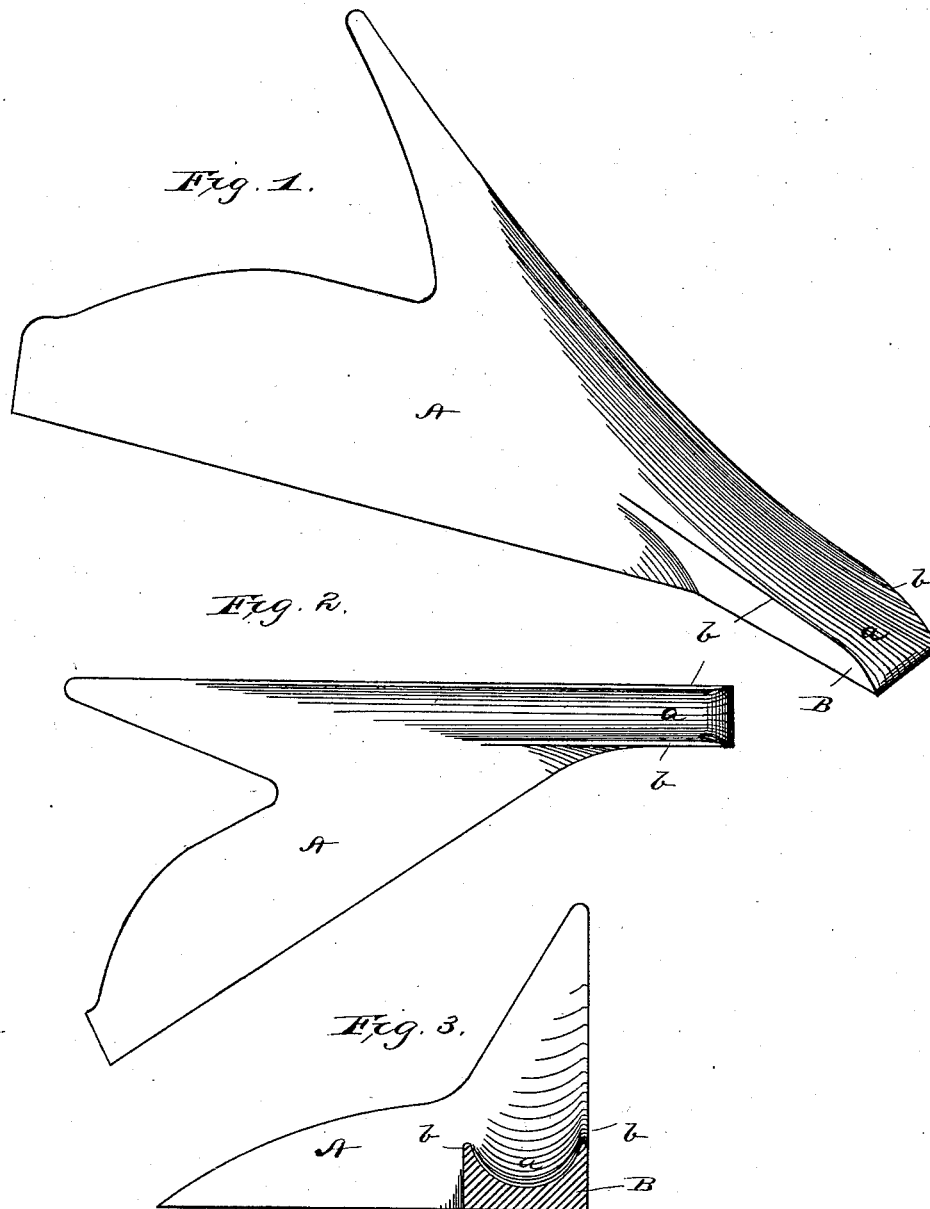
(Model.)

W. J. TURNER.

PLOW POINT.

No. 266,927.

Patented Oct. 31, 1882.



Witnesses,
Edwin L. Jewell.
H. Aubrey Toulmin

Inventor.
William J. Turner.
By C. M. Alexander.
his Atty.

UNITED STATES PATENT OFFICE.

WILLIAM J. TURNER, OF BATTLE CREEK, MICHIGAN.

PLOW-POINT.

SPECIFICATION forming part of Letters Patent No. 266,927, dated October 31, 1882.

Application filed January 3, 1882. (Model.)

To all whom it may concern:

Be it known that I, WILLIAM J. TURNER, of Battle Creek, in the county of Calhoun, and in the State of Michigan, have invented certain new and useful Improvements in Plow-Points; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention has relation to improvements in plow-points.

In order that my invention may be properly understood and that it may be distinguished from what has heretofore been done in this art, I desire to preambule my specification with the following statements, to wit: Plow-points of the character under consideration have been made as far back as 1862 with ribs or beads along the lower and upper surfaces of both sides of the nose or point proper for the purpose of affording additional strength to the point or nose. These have now become public property by the expiration of the Letters Patent under which they were secured. The practical objection found to arise from the use of these double ribs consists in the fact that the lower ribs have a direct tendency to steer upward and run the point out of the ground; and, further, as the lower ribs are subjected to a positive contact in their passage through the soil in the more solid part of the ground (being deeper down) than that portion of the ground through which the upper ribs run, they (the lower ones) wear away faster and soon become blunt at their forward ends. When in this condition they meet any hard substance their immediate action is to throw the point out of the ground. Other plow-points have subsequently been made with ribs at each side, but which extend only above the upper surface of the point, the said surface being left flat in its cross-section. The surfaces of the points included under the last-mentioned class are sharpened from their extreme forward end back to the body of the plow-point in a gradual incline, beginning with a thin edge and thickening in a wedge-like form as they merge into the body of the point, while the cross measurement of the surfaces of these points between the ribs is the same from the forward extremity of the ribs back to their rear ends.

The difference between these features of this class of points and the disadvantages arising therefrom and the relative features and advantages arising therefrom of mine will be hereinafter pointed out. Others have also been made having the upwardly-extending ribs, one at each side of the point, while the surface proper of the point has been convexed on the upper side and concaved on the lower side. The practical disadvantages enumerated as arising from the first class of existing plow-points equally apply to those points just above mentioned.

Having thus set out the state of the art as developed to the present time, I will now point out the special features of my invention, which is designed to overcome the difficulties and objections above related.

In the accompanying drawings, forming part of this specification, Figure 1 is a perspective view of my improved plow-point; Fig. 2, a plan view of the same, and Fig. 3 a cross-section of the nose of the point.

The letter A designates the body of my plow-point, which is made substantially of the form shown, being cast of iron or steel.

The letter B indicates the nose thereof, in the peculiar form of which consists essentially my improvement. This nose is cast perfectly flat on the lower side thereof. Its upper surface is concave in cross-section, being cast with a deep groove, *a*, the metal *b b* remaining on each side thereof, forming the walls of the said groove and the sides of the nose. This groove or concave way or passage *a* also extends rearwardly into the body of the point proper, becoming shallower or of a greater radius as it so proceeds, for a purpose to be presently named. At the extreme point of the nose the said groove is flared laterally, that portion thereof which lies between forty-five degrees and ninety degrees being cut away, which widens and flattens the bottom of the groove and sharpens the walls or sides of the nose at that point which enters and first breaks the ground. This describes the first part of my invention. Beginning at the extreme point of the nose, I incline the bevel of the groove somewhat abruptly—that is to say, I make the inclination of the first inch or so thereof approximately nearer ninety degrees than the remaining portion of the said groove. This forms the second part of my invention. It

will now be observed that that portion of the nose of my plow-point which first enters the ground—that is, the point thereof—is flatter, wider, and steeper on its upper surface for a short distance than any other portion of the nose, the flatness and width serving to collect a greater amount of soil, which is afterward forced through the contracted portion of groove as the nose proceeds forward, the actual practical result of which is to wear away the seat of the groove more rapidly than the ribs, thus steadying the plow and prolonging the life of the ribs by which it is so steadied in an operative condition. These are important features, for by them I am enabled to plow a much longer time without changing my points, thus effecting a considerable saving in cultivation and at the same time producing a better implement. The short abrupt point above described prevents all liability of the plow running out of the ground, the direct tendency of the soil as it impinges against it in its forward movement through the more solid portions of the ground being to press the nose down to its work. I have found by actual experiment that this abruptly-inclined point wears away in about the same proportion as the seat of the groove, thus preserving the several features of my plow in substantially the same relative condition after continued use as

when it first comes from the factory. The shallower portions of the groove above mentioned in the body of the point allow the soil to readily distribute and free itself over the mold-board, yet so gradually as to retain a sufficient quantity of soil near the landside to assist by its weight in steadying the plow.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. A plow-point having its upper surface provided with a concave groove and its lower surface and sides flat, the said groove being of variable curvature in its cross-section, as described, and for the purpose set forth.

2. A plow-point having its upper surface provided with a concave groove and its lower surface and sides flat, the said groove being flared and abruptly inclined, as described, at its point, whereby the walls of the point are sharpened and at varying radii as it proceeds to the body of the point, substantially as shown and specified.

In testimony whereof I affix my signature in presence of two witnesses this 10th day of December, 1881.

WILLIAM J. TURNER.

Witnesses:

J. J. MCCARTHY,
H. J. ENNIS.