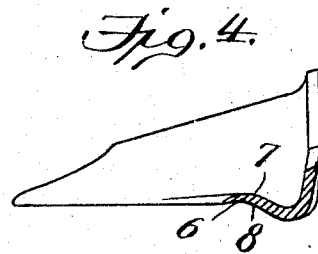
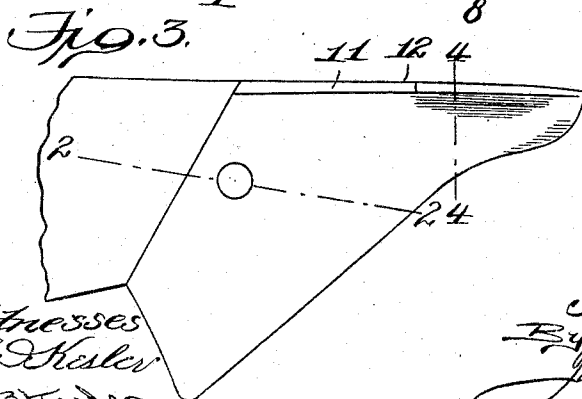
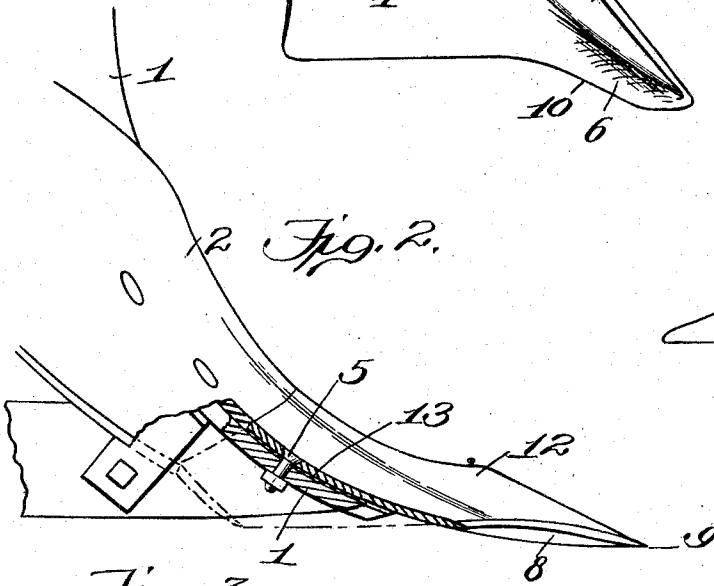
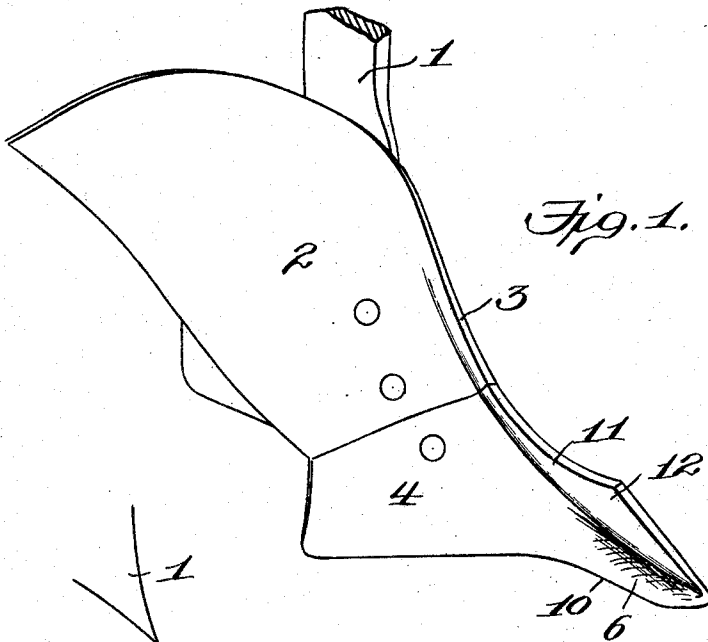


A. G. PERRY.
 PLOWSHARE.
 APPLICATION FILED DEC. 2, 1908.

947,083.

Patented Jan. 18, 1910.



Witnesses
 C. H. Keller
 J. B. Keller

Inventor
 Alvy G. Perry
 By
 James L. Norris
 Atty.

UNITED STATES PATENT OFFICE.

ALVY GREEN PERRY, OF COLDWATER, MISSISSIPPI.

PLOWSHARE.

947,083.

Specification of Letters Patent.

Patented Jan. 18, 1910.

Application filed December 2, 1908. Serial No. 465,701.

To all whom it may concern:

Be it known that I, ALVY GREEN PERRY, a citizen of the United States, residing at Coldwater, in the county of Tate and State of Mississippi, have invented new and useful Improvements in Plowshares, of which the following is a specification.

My present invention relates to improvements in plowshares and especially to that class adapted for use upon turning plows, and it has for its object primarily to provide an improved share of this character which is of such a form and contour as to cause the pressure or friction of the soil to act essentially on the upper surface of the share, dragging of the soil at the under side of the share being thereby avoided, and the tip or forward edge of the share is set at such an angle as to render the share substantially self-sharpening.

Another object of the invention is to provide an improved share wherein the upper side thereof is convex and its under side is correspondingly concave, such a formation of the share giving a twist to the bill or point which will not only facilitate the entrance of the point into the soil, but will also maintain the forward edge of the share at the proper cutting angle, the concavo-convex portion of the share lying substantially in the plane of the bottom edge of the land side of the share and thereby enabling the share to set flat as well as to provide the necessary clearance on the under side of the share to avoid dragging.

A further object of the invention is to provide a share of this character with a rib which extends upwardly and rearwardly from the bill or tip to serve not only as a cutter to separate the soil at the land side of the plow, but to also stiffen and reinforce the bill or tip, the rib being preferably formed integrally with the body of the share and increasing in height from the tip rearwardly and upwardly so as to form an intermediate deep portion which will effectually reinforce the bill from breakage, the remainder of the rib then preferably decreasing in height above the plane of the share until it merges into the land side edge of the mold board, the requisite strength being thereby secured in a share which may be forged in a single piece, the expense and disadvantages of welding being thereby avoided.

To these and other ends, the invention

consists in certain improvements, and combinations and arrangements of parts, all as will be hereinafter more fully described, the novel features being pointed out particularly in the claims at the end of the specification.

In the accompanying drawing: Figure 1 is a perspective view of a turning plow provided with a share constructed in accordance with my present invention; Fig. 2 represents a side elevation of the plow shown in Fig. 1, the share being cut on the line 2—2 of Fig. 3; Fig. 3 is a plan view of the share showing the same applied to the plow standard; and Fig. 4 represents a section taken through the share on the line 4—4 of Fig. 3 showing the reinforcing rib and also the concavo-convex formation of the share which gives the same a twist.

Similar parts are designated by the same reference characters in the several views.

In the accompanying drawing, I have shown one specific embodiment of the invention wherein a share is illustrated which is especially adapted for use upon turning plows. It will be understood, however, that the invention is not limited to the specific form shown, and that certain modifications in its construction may be made in order that the invention may be applied to the best advantage in each particular case.

In the accompanying drawing, 1 designates the plow standard provided with a mold board 2 the land side of which has a rib 3 which projects upwardly and forwardly therefrom.

The plow point in this embodiment of the invention is preferably formed in a single piece and preferably by forging, it comprising a body portion 4 which is concaved longitudinally to fit upon the correspondingly curved lower end of the plow standard, and it is secured to the standard by means of a bolt or other suitable device 5. A relatively narrow extension is formed upon the share, this extension being a continuation of the body portion thereof, and the bill or tip thus provided has a twist 6 which is produced by a convexity 7 on the upper side of the share and a corresponding concavity 8 formed on the under side thereof, the convexity at the under side of the share providing sufficient clearance to prevent dragging of the under side of the share upon the soil by reason of the fact that the tip 9 of the share is deflected downwardly below the plane of the concavity. This twist

in the share also renders the tip of the share self-sharpening for the reason that the soil has a frictional engagement with its upper side only. The twist in the share also elevates the lateral edge 10 of the bill.

At the land side of the share, an upturned rib or flange 11 is provided, and this rib may be of different thicknesses. However, it is preferably of the same thickness as that of the share, it being turned upwardly by forging or otherwise so that it forms an integral part of the body of the share. This rib begins at the tip of the share and increases in depth toward the middle thereof to form a thickened portion 12 which is intermediate the tip and the rear edge of the share, and this rib then decreases in height as it approaches the rear edge of the share at which point it joins the rib 3 at the land side edge of the mold board. The thickened portion 12 of the reinforcing rib is preferably arranged at the point where the bill or relatively narrow extension joins the body portion of the share whereby the maximum strength will be insured to prevent breakage of the bill from the share. This upturned rib not only serves as a reinforcement for the bill of the share, but it also serves as a cutter to sever the soil at the land side of the plow. The twist given the bill by the convexity 7 and the concavity 8 elevates the lateral edge 10 of the bill sufficiently to enable the bottom of the rib at the land side of the share to rest flatwise upon the soil.

It will be obvious that the shares may be made of different thicknesses, and in order to bring the upper surface of the share flush with the corresponding surface of the mold board, a layer of pasteboard or other solid material 13 of appropriate thickness may be interposed between the plow standard and the share whereby a relatively thin share may be employed upon the same plow, and the surfaces of the share and mold board which encounter the soil will be sufficiently continuous or unbroken. This strip of backing material will be secured in position by the same bolt 5 which secures the share to the plow standard. By gradually increasing the height of the reinforcing rib as the same extends rearwardly from the tip edge of the share, the upper edge of this rib is inclined, and the soil acting thereon will have a tendency to force the share downwardly into the soil.

It has been customary to weld a rib at the under side of the plowshare in order to support or reinforce the point. Such a welding, however, has not only increased the cost of the plowshare, but the rib thus arranged has been subject to wear so that after the plow was used only for a few days, the rib would assume a beveled form which was so thick at the tip of the point as to pro-

duce a tendency to lift the plow from the soil and to impede its movement there-through. According to the present invention, however, the rib may be forged as an integral part of the share, thereby reducing the cost thereof, and as it is arranged at the upper side of the share, it will lift the soil and thereby protect the surface of the point and, moreover, the share is more durable.

I claim as my invention:—

1. A plowshare comprising a body portion having a forwardly extending narrow bill adjacent to its land side edge, said bill being formed in a lateral direction with a convex upper surface and a corresponding concave lower surface whereby the bill presents a twisted form about a longitudinal axis.

2. In a plow, the combination of a standard, a mold board having an upwardly projecting rib on the land side thereof, and a plowshare adapted for attachment to the standard, said share comprising a body portion having a narrow bill projecting forwardly therefrom, and an upwardly projecting rib formed at the land side of the share, said rib having an increased depth at an intermediate point in the length of the share and diminishing in depth so as to merge into the tip of the bill and the rib on the mold board, respectively.

3. A plowshare comprising a body portion and a bill extending forwardly therefrom and offset laterally with respect to the land side edge of the share, the upper side of the bill being provided at a point removed from the land side edge thereof with a twist which forms a convexity and forming at the under side of the bill a corresponding concavity.

4. A self-sharpening plowshare comprising a body portion, and a bill of reduced width extending forwardly therefrom, the upper side of the bill having a convexity located at one side of the land side edge thereof, and the lower side of the bill having a corresponding concavity immediately beneath said convexity to form a twist in the bill which reinforces it and positions the land side edge of the share below the opposite lateral edge of the bill.

5. The combination of a plow standard, a mold board secured to the forward face thereof, a plowshare also arranged on the forward face of the plow standard and of a thickness less than the thickness of the mold board, and a body formed separately from and interposed between the plowshare and standard for aligning the upper face of the share with that of the mold board.

6. A plowshare having a bill formed with a convex upper surface and a concave under surface said convex and concave surfaces being offset laterally with respect to

the land side of the share and forming a twist in the bill, and an upturned reinforcing rib formed integrally with the share and having an increased depth at a point midway between the point and the rear edge of the share.

7. A plowshare having a longitudinal rib upturned from its land side edge, said rib having a maximum depth at a point intermediate the length of the share and diminishing in depth toward the bill and toward the rear edge of the share, the bill of the share joining the body portion thereof adja-

cent to that portion of the rib which is of a maximum depth, the bill being offset laterally of said rib and having concavo-convex surfaces on its lower and upper sides, respectively, which give the bill a twisted form. 15

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses. 20

ALVY GREEN PERRY.

Witnesses:

A. S. POE,

W. F. CATE.