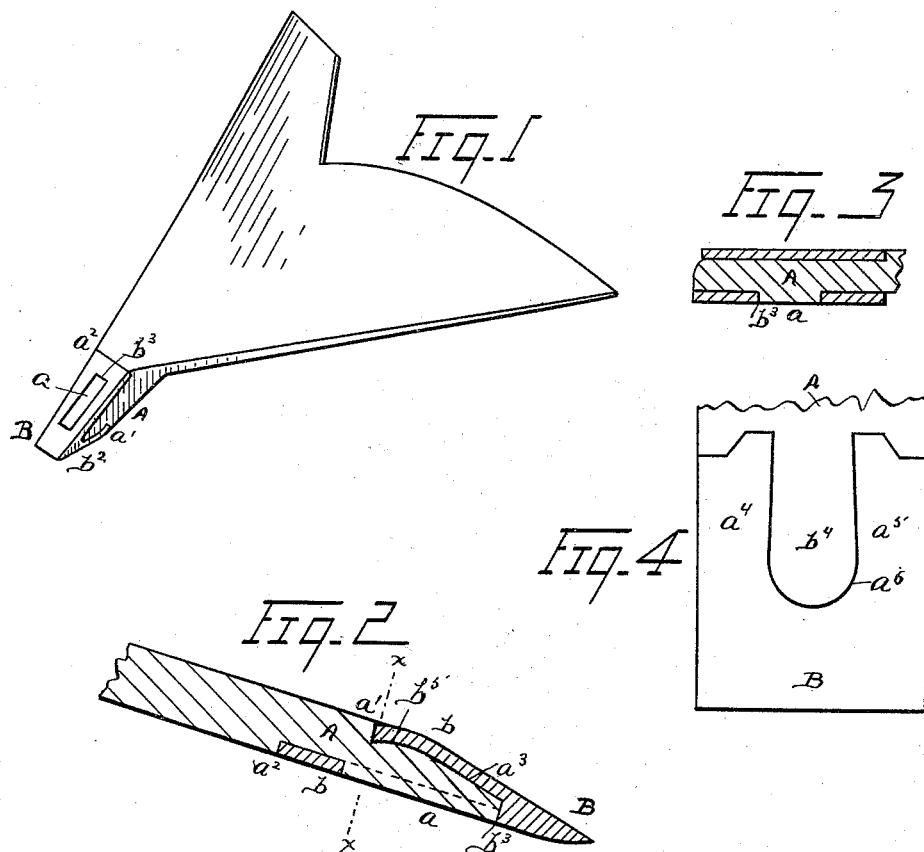


(No Model.)

J. S. FOX.  
PLOW POINT.

No. 419,935.

Patented Jan. 21, 1890.



Witnesses  
John Schuman.  
Charles F. Salow.

Inventor  
James S. Fox  
By his Attorney  
Newell Wright.

# UNITED STATES PATENT OFFICE.

JAMES S. FOX, OF DETROIT, MICHIGAN.

## PLOW-POINT.

SPECIFICATION forming part of Letters Patent No. 419,935, dated January 21, 1890.

Application filed February 21, 1889. Serial No. 300,695. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES S. FOX, a subject of the Queen of Great Britain, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Plow-Points; 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, which form a part of this specification.

My invention has for its object a new and useful improvement in plow-points, having for its more particular design the general form of the point, its construction, and method of attachment.

My invention consists of the devices and appliances, together with their combinations and arrangements, as more fully hereinafter described and claimed, and more specifically illustrated in the accompanying drawings, in which—

Figure 1 is an inverted view, in perspective, showing my improved point in place. Fig. 2 is a longitudinal section through the point; and Fig. 3 is a vertical cross-section on the line  $x x$ , Fig. 2. Fig. 4 is a modification.

The essential features of a plow-point are ease and quickness of application and removal, durability, and economy, together with general adaptation for various plows in use.

It is the purpose of my present invention to secure these results in a plow-point which may be made to conform to any of the ordinary plows upon the market.

I carry out my invention as follows: A represents the nose of the plow, which may be constructed in the form of a tenon and provided with a rib or other projecting stud of any suitable form  $a$ , preferably upon its lower face. In the drawings I have shown an elongated rib. On its opposite surface the nose is constructed with a shoulder, as shown at  $a'$ , and with a shoulder  $a^2$  on the same side as the rib and at a proper distance to the rear of the rib. On the upper surface the nose is also preferably tapered for a portion of the distance from the outer extremity toward the shoulder  $a'$ , as shown, adjacent to  $a^3$ .

B denotes my improved point. As shown in Figs. 1, 2, and 3, the point consists of wings

$b b'$ , united at the forward end of the point, as shown at  $b^2$ . The forward end may thus be made solid for a desired distance before the wings diverge therefrom, forming a very durable and strong wearing-point, capable of considerable service, and which may be drawn out by a blacksmith, if desired, after wear may make it desirable. This point I prefer to make of steel, and it will be evident that the wings will be in the nature of springs. Spring-steel may be employed to form the point, so as to give the desired spring quality to the wings.

My invention contemplates forming the wings at such a distance from each other as will correspond normally to the width of the nose at various points. One of the wings, preferably the lower one, may be constructed with an aperture  $b^3$ , conforming in shape to the rib  $a$  upon the nose of the plow.

As constructed, the point, it will be seen, is engaged and held in place by being sprung over the rib, allowing the rib to enter the slot  $b^3$ . The upper edge of the adjacent wing springs back into place, holding the point snug upon the nose of the plow and without any liability of accidental displacement.

To engage a point in place, the open end of the wings is slipped over the nose of the plow and the point pressed rearward over the rib until it is home, when it springs into place, the ends of the wings fitting against the shoulders  $a' a^2$ . The thickness of the rib is such as to fit flush with the outer surface of the corresponding wing of the point.

I prefer to extend the lower wing beyond the extremity of the opposite wing, to form a firm bearing, although either wing may be of any length desired.

To remove an outworn point, it may be readily disengaged and removed by inserting a suitable tool—as a screw-driver, for instance, or the point of a nail—between the wing and nose and springing the wing over the adjacent rib. The operation of removing and applying a point is thus the work of but a moment.

The engagement of a plow-point in place simply by spring-pressure I believe to be novel, and therefore desire to claim a point so fastened, broadly. To this end, in Fig. 4 I show a modification, in which the same

method of securing the point in place is employed. In this instance the point is constructed with lateral wings  $a^4$   $a^5$ , leaving an open recess  $a^6$  between them. In this case  
5 the rib  $b^4$  may be made broader toward its free extremity than toward the base, as shown. The point is applied, as before, by springing the wings apart and about the rib, the extremities of the wings retracting against the  
10 narrowed portion of the corresponding rib to hold the point securely in place. Such a mode of fastening is at once very simple, while it is also very efficient. The longer wing, being located on the under side of the nose, serves  
15 to protect it in a very efficient manner. It will be desirable, also, to form the side of the nose opposite the rib or stud with an inner curvature toward the shoulder  $a'$ , as shown at  $b^5$ , the adjacent wing being also curved in  
20 a similar manner. This construction, it will be seen, will very materially aid in holding the point firmly in place.

What I claim as my invention is—

1. The combination, with a plow-point provided with a projecting rib or stud, of a point 25 provided with spring-wings, one of said wings constructed with an aperture to receive said stud or rib when the said point is sprung into place, substantially as set forth.

2. The combination, with a plow-nose constructed with a rib or stud on one side and a 30 projection, as  $b^5$ , on the other side, of a point provided with spring-wings to engage over said sides, respectively.

3. The combination, with a plow-point provided with a rib or stud, of a point 35 provided with spring-wings to engage over said point and upon said rib or stud, substantially as set forth.

In testimony whereof I sign this specification in the presence of two witnesses. 40

JAMES S. FOX.

Witnesses:

N. S. WRIGHT,  
CHAS. F. SALOW.