W. F. HARTIG.

SUBSOIL ATTACHMENT FOR PLOWS.

APPLICATION FILED JAN. 18, 1913.

1,073,984. Patented Sept. 23, 1913.

Fig. 1.

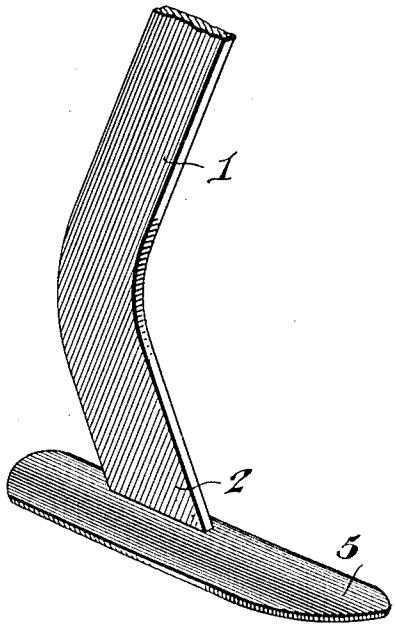


Fig. 2.

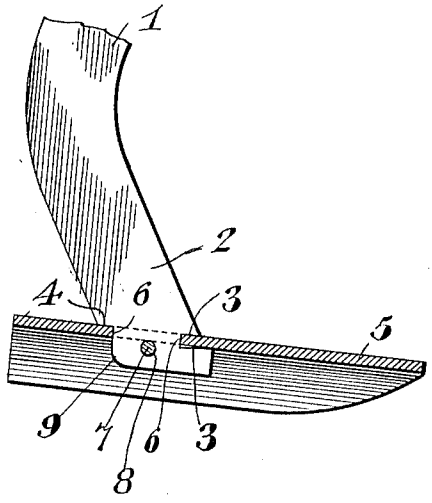
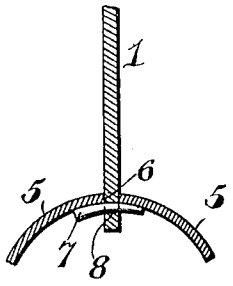


Fig. 3.



WITNESSES

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WILLIAM F. HARTIG, OF EVANSVILLE, INDIANA.

SUBSOIL ATTACHMENT FOR PLOWS.

1,073,984. Specification of Letters Patent. Patented Sept. 23, 1913.

Original application filed August 27, 1912, Serial No. 717,301. Divided and this application filed January 18, 1913. Serial No. 742,946.

To all whom it may concern:

Be it known that I, WILLIAM F. HARTIG, a citizen of the United States, residing at Evansville, in the county of Vanderburg and State of Indiana, have invented a new and useful Subsoil Attachment for Plows, of which the following is a specification.

The invention relates to a subsoil attachment for plows, and is a division of the subject-matter of an application for an adjustable subsoil attachment for plows, filed by me Aug. 27, 1912, Serial No. 717,301.

The object of the present invention is to improve the construction of subsoil attachments for plows, more especially the means for securing the blade to the lower end of the standard of the subsoil attachment, and to provide a simple, efficient and comparatively inexpensive construction which will be strong and durable, and adapted to permit a subsoil blade to be easily and quickly applied to and removed from a subsoil standard and firmly and securely held in proper position thereon when secured thereto.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawing, and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction, within the scope of the claims, may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawing:—Figure 1 is a perspective view of the lower portion of a standard and blade of a subsoil attachment constructed in accordance with this invention. Fig. 2 is a vertical sectional view taken longitudinally of the blade. Fig. 3 is a transverse sectional view.

Like numerals of reference designate corresponding parts in all the figures of the drawing.

In the accompanying drawing in which is illustrated the preferred embodiment of the invention 1 designates a subsoil standard having a downwardly and forwardly curved foot portion 2 provided at its front edge with an approximately rectangular or oblong notch 3 and having a recess 4 at its rear edge. The lower end of the standard 1 receives a subsoil blade 5 curved transversely and having a tapered front portion and provided at a point intermediate of its ends with a slot 6 through which the lower end of the foot of the standard extends. The front notch 3, which receives the front wall or portion of the subsoil blade at the front end of the slot 6, forms upper and lower shoulders for engaging the upper and lower faces of the blade 5, and the said shoulders are adapted to hold the front portion of the blade 5 against upward and downward movement on the standard.

In order to facilitate the placing of the blade on the lower end of the standard, the front recess is tapered slightly, the mouth or front end being approximately of a width equal to the thickness of the blade and the bottom shoulder being inclined or angularly disposed and diverging inwardly or rearwardly from the upper shoulder and also from the lower face of the blade when the latter is in contact with the said upper shoulder. The rear recess 4, which extends upwardly from the lower edge of the foot, receives the rear wall or portion of the blade at the rear end of the slot 6 and it forms an upper shoulder, which holds the blade 5 against upward movement. The blade 5 is secured in position against the rear shoulder by means of a transversely disposed wedge-shaped key 7, curved to conform to the configuration of the blade and fitting against the inner face of the same and extending through a perforation 8 in the lower end of the foot of the standard. The wedge-shaped key, which supports the rear portion of the subsoil blade and holds the same against downward movement, maintains the said head firmly in engagement with the rear shoulder of the standard, and it is adapted to be readily removed to permit the subsoil blade to be detached from the standard. The heel portion 9 of the foot of the standard is rounded, as shown, to permit the foot of the standard to be readily inserted in the slot of the blade.

In assembling the parts, the front or toe portion of the standard is introduced into the slot of the subsoil blade and is moved forwardly to engage the front recess with the front wall of the slot, and the rounded heel portion of the standard and the tapered front recess permit the blade to be readily brought into proper position in contact with the rear shoulder of the standard.

What is claimed is:—

1. A subsoil attachment for plows including a standard provided at its lower end with a front notch and having a rear recess forming an upper shoulder, a subsoil blade provided with a slot receiving the lower end of the standard, said blade fitting in the notch and the recess of the standard, and a fastening device piercing the standard below the blade for retaining the latter in engagement with the notch and in contact with the said shoulder.

2. A subsoil attachment for plows including a standard provided at its lower end with an approximately rectangular front notch, and having a rear recess diametrically opposite the notch and forming an upper shoulder, a subsoil blade curved in cross section and provided with a slot intermediate its ends, said slot receiving the lower end of the standard, said blade having the walls of the slot engaging the notch and recess of the standard, a perforation in said lower end of the standard below the blade, and a transverse wedge-shaped key curved to conform to the configuration of the blade and extending through the perforation.

3. A subsoil attachment for plows including a standard provided at its lower end with a tapered front notch and having a rear recess forming a heel, which is rounded at the bottom, a subsoil blade provided with a slot to receive the lower end of the standard and engaging the front notch thereof and fitting in the rear recess, said rounded heel and tapering recess permitting the blade to be placed on or engaged with the standard, and fastening means for retaining the blade on the standard.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

WILLIAM F. HARTIG.

Witnesses:
BEN H. TILLMAN,
EDWARD G. HARTIG.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."