T. C. GARRITY.

BOOT FASTENER FOR DRILLS.

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1,113,773.

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Fig. 1.

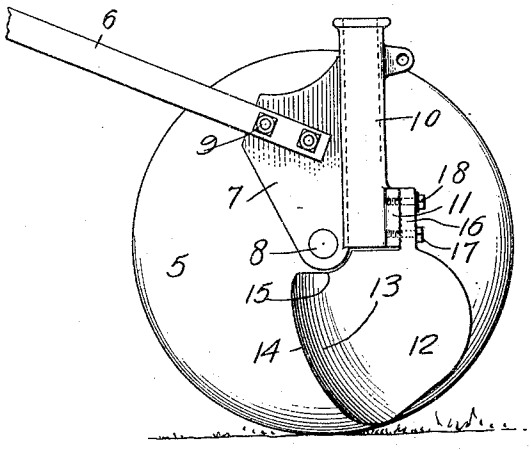


Fig. 2.

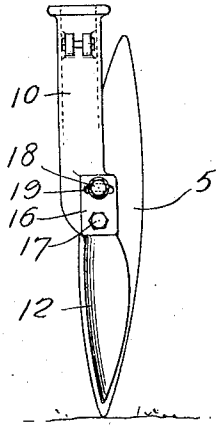


Fig. 3

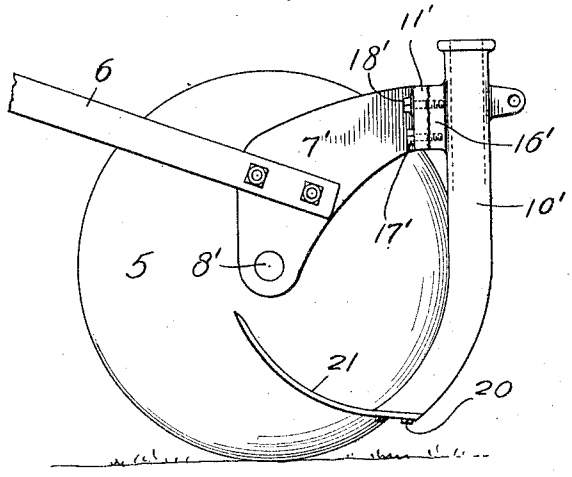
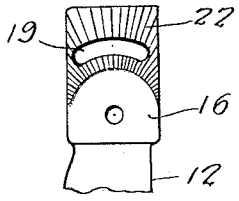


Fig. 4.



WITNESSES

L. H. Schmidt

Alan F. Garnett.

INVENTOR

THOMAS C. GARRITY,

BY Munn & Co.

ATTORNEYS

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

THOMAS C. GARRITY, OF LINCOLN, KANSAS.

BOOT-FASTENER FOR DRILLS.

1,113,773. Specification of Letters Patent. Patented Oct. 13, 1914.

Application filed February 19, 1914. Serial No. 819,712.

To all whom it may concern:

Be it known that I, THOMAS C. GARRITY, a citizen of the United States, and a resident of Lincoln, in the county of Lincoln and State of Kansas, have made certain new and useful Improvements in Boot-Fasteners for Drills, of which the following is a specification.

This invention relates to grain drills generally, and more particularly to a scraper attachment for disk furrow openers.

One of the principal objects of the invention is to provide a novel means of arranging and attaching a scraper to the disk, whereby the scraper may be adjusted to work against the disk, and to take up wear as the scraper or disk become worn.

Another object is to provide a scraper having a pivotal connection relative to the disk, and means for maintaining the scraper at any angle within certain limitations relative to the disk.

A further object of the invention is to provide a device of the class described, which will be simple, durable, efficient in operation and inexpensive to manufacture.

With these and other objects in view which will become apparent as the description proceeds, the invention resides in the construction, combination and arrangement of parts hereinafter more fully described and claimed and illustrated in the accompanying drawings in which like characters of reference indicate like parts throughout the several figures, of which—

Figure 1 represents a side elevational view of a disk furrow opener provided with the attachment, Fig. 2 represents a rear end elevational view thereof, Fig. 3 represents a side elevational view of a modified form of the invention, and Fig. 4 represents a face view of one of the bearing plates showing the manner of corrugating the same.

Referring more particularly to the drawing, 5 indicates a concavo-convex disk furrow opener, and 6 indicates a draw bar. A plate 7 is provided, which is substantially triangular in shape, in the lower apex of which the disk is journaled as at 8, and to the upper portion of the plate is secured by bolts 9, the rear end of the draw bar 6.

Formed integrally with the plate 7, and along its rear edge, is a seed discharge boot 10. The boot terminates at its lower end above the extreme lower end of plate 7, and in substantially horizontal alinement with the bearing 8, and on the rear face of the boot, at its lower end, is provided a substantially rectangular plate 11, disposed in a substantially vertical plane at right angles to the general plane of the disk.

The scraper comprises a plate 12, having its forward portion curved inwardly, as at 13, the extreme forward edge of plate 12, being curved forwardly, as at 14. The upper edge 15 of the plate is substantially straight, and lies under the outer lower edge of the boot, or that edge which is disposed at a distance from the disk, and said top edge is recessed, as at 15, forwardly of the straight portion, to accommodate the lower apex of plate 7.

Projecting upwardly from plate 12, near the rear portion of the top edge thereof, is a lug 16 which is flat, and which is substantially rectangular in contour, and which is disposed at right angles to the general plane of the plate. The lug 16 is of substantially the same shape as plate 11, and is adapted to lie against said plate, and is pivoted thereto by means of a lower set screw 17, which projects through the lower portion or lug 16, and is threaded into the lower portion or plate 11. By this construction the plate 12 may swing on its pivot point 17, toward or away from disk 5, and in order to set the plate so that it will bear against the disk, or be positioned in spaced relation thereto as desired, there has been provided the upper set screw 18 which projects through an arcuate slot 19 disposed transversely of lug 16, and is threaded into the upper portion of plate 11.

It is evident that by setting plate 12 at the desired angle relative to disk 5, and tightening screw 18, the plate will be maintained in that position, whereby when the plate is disposed so that the forward edge thereof is in contact with the disk, the screw may be tightened and the plate will remain in that position until readjusted.

Referring to the construction shown in Fig. 3, 5 indicates the disk, 6 the draw bar, 7′ the plate, which in this instance is substantially arcuate and is disposed rearwardly and upwardly with respect to the pivot point 8′ of the disk, and the rear portion of plate 7′ is provided with an outwardly projecting ear 11′ corresponding to plate 11, and the boot 10′ is somewhat longer than boot 10, and extends downwardly and has its lower end curved to an extent substan-

tially equal to the curvature of disk 5, and said boot is provided on its forward face with a plate 16′ corresponding to lug 16, said plate 16′ being pivoted to ear 11′ by means of the lower set screw 17′, the ear 11′ being provided with the arcuate slot through which the upper set screw 18′ extends, which screw is threaded into plate 16′, and acts in the same manner as set screw 18, in maintaining the boot 10 at any desired angle within the limits of the arcuate slot, relative to disk 5.

Secured at its rear end by means of bolts or screws 20 to the lower end of boot 10, is a substantially arcuate scraper 21 formed of a strip of metal, and which projects forwardly of the boot and is curved upwardly toward the center of the disk. By adjusting the boot relative to the disk, the inner edge of the scraper 21, may be made to bear against the surface of the disk. The plates in both embodiments are corrugated as shown at 22 in Fig. 4, to prevent sliding of the plates relative to each other when the upper screws are tightened.

In both forms shown, it is evident that by means of the pivotal connection relative to the disk, the scraper may be positioned against said disk, and by means of the curved slot and set screw connection, that the scraper may be maintained in said position. Bolts may be used in place of the set screws if so desired.

Although I have described the preferred embodiment of my invention, I may desire to make such changes in the construction, combination and arrangement of parts thereof, as do not depart from the spirit of the invention and the scope of the appended claims.

I claim:—

1. A device of the class described comprising a disk, a triangular plate in the lower apex of which said disk is journaled, a draw bar secured to said plate, a boot formed integrally with the rear edge of the plate, a bearing plate formed on said boot and extending at right angles to said disk, a scraper having its forward portion curved inwardly toward said disk, a lug extending upwardly from said scraper and at right angles thereto, and bearing against said bearing plate, a set screw on which said lug is pivoted, said set screw extending into said bearing plate, said lug above said set screw provided with an arcuate slot, and a second set screw extending through said arcuate slot and into said bearing plate, whereby the scraper may be adjusted relative to the disk.

2. A device of the class described comprising a disk, a plate in which said disk is journaled, a draw bar secured to said plate, a boot formed on said plate, a scraper, a bearing plate formed on said boot disposed transversely of the scraper, a lug formed on said scraper transversely thereof, a set screw on which said lug is journaled, said screw extending into said bearing plate, said lug provided with a transversely disposed arcuate slot, and a second set screw extending through said slot and into said bearing plate whereby said scraper may be adjusted relative to said disk.

3. A device of the class described comprising a disk, a boot associated therewith, a bearing plate formed on said boot at right angles to the disk, a scraper, a lug on said scraper transversely thereof, a set screw on which said lug is pivoted, said set screw extending into said plate, said lug provided with an arcuate slot, and a second set screw extending through said slot and into said bearing plate, whereby said scraper may be adjusted relative to said disk.

4. A device of the class described comprising a disk, a scraper, a bearing plate associated with and disposed at right angles to said disk, a second bearing plate associated with and disposed in a plane at right angles to said scraper, a pivot bolt carried by one of said plates and extending through an opening in the other plate, one of said plates provided transversely thereof with an arcuate slot, and a bolt carried by the opposite plate and extending through said slot whereby to secure adjustment of said disk and scraper relatively to each other.

THOMAS C. GARRITY.

Witnesses:
JOSEPH P. PROCTOR,
ADOLPH E. ACHTUBER.

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