To all whom it may concern:

Be it known that I, PHILIP H. GEISLER, a citizen of the United States, residing at Oxford, in the county of Butler, State of Ohio, have invented certain new and useful Improvements in Disk-Joiners for Plows; and I do hereby declare the following to be 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.

This invention relates to disk joiners for plows.

The object of the invention resides in the provision of an improved construction of disk joiner whereby the disk may be adjusted in various ways with ease and facility according to the nature of the work to be performed.

With the above and other objects in view the invention consists in the details of construction and in the arrangement and combination of parts to be hereinafter more fully described and particularly pointed out in the appended claim.

In describing the invention in detail reference will be had to the accompanying drawings wherein like characters of reference denote corresponding parts in the several views, and in which:

Figure 1 is a side elevation of a disk joiner constructed in accordance with the invention and showing a portion of a plow beam to which the same is attached; Fig. 2, a top plan view of what is shown in Fig. 1; Fig. 3, a front view of what is shown in Fig. 1; Fig. 4, a horizontal section through the hub of the disk; Fig. 5, a vertical section through the construction between the disk fork and the stem or arm of the joiner; and Fig. 6, a vertical section through the arm or stem of the joiner at the plow beam.

Referring to the drawings 10 indicates the beam of a plow of the usual channel iron construction. Disposed in the groove on one side of the beam 10 is a block 11 provided with a groove 12 in its outer face extending transversely of the block and having its wall provided with a plurality of corrugations 13 also extending transversely of the block. The stem or arm of the joiner is indicated at 14 and the inner face thereof is transversely curved to correspond with the curvature of the groove 12 and provided with a plurality of corrugations 15 adapted to interlock with the corrugations 13 as will be obvious. The outer face of the stem or arm 14 comprises converging portions 16 and 17 which intersect or meet centrally of the transverse dimension of the stem or arm. This stem or arm 14 has its upper end secured to the beam 10 through the medium of a U-shaped clip 18 which embraces the arm or stem, the block 11 and beam 10 and forces the corrugations 15 into interlocking relation with the corrugations 13. Pivotedly secured against the outer face of the arm or stem 14 beneath the converging portions 16 and 17 is an L-shaped member A including arms 19 and 20, the former being disposed against the stem 14 and secured thereto through the medium of a bolt 21. The arm 19 is provided with an arcuate slot 22 disposed concentrically with respect to the bolt 21 and through which projects a bolt 23 carried by the arm 14. By this construction it will be obvious that upon loosening the nut on the bolt 23 the member A can be pivotally adjusted for the purpose of raising and lowering the disk as will hereinafter appear. The arm 20 has secured against its lower side a block 24 provided on its lower end with a recess 25 extending longitudinally of the beam 10 and having its wall provided with corrugations 26 also extending longitudinally of the beam 10. Extending through the block 24 and the arm 20 and running parallel to the arm 19 is a bolt passage 27. The improved jointer further embodies a fork member including arms 28 and 29 and a head 30. The upper side of the head 30 is curved transversely and provided with longitudinal corrugations 31 adapted to interlock with the corrugations 26 when the head 30 is seated in the groove 25. Extending through the head 30 is a bolt passage 32 which registers with the passage 27 and is flared in the direction of the block 24 and also in a downward direction. Extending through the passage 32 and passage 27 is a bolt 33 provided with a washer 34 suitably recessed to receive the lower portion of the head 30. The disk of the joiner is indicated at 35 and is provided centrally with an opening 36. The disk 35 is disposed between the arms 28 and 29 and has mounted on opposite sides respectively around the opening 36 hub castings 37 which receive cone bearings 38. The outer ends of these bearings 38 are provided respectively with lugs 39 which engage in recesses 40 formed in the arms 28 and 29 and
whereby the bearings are held against axial rotation. Extending through the arms 28 and 29, through the bearings 38 and through the opening 36 is a bolt 41 through the instrumentality of which wear of the bearings 38 may be taken up.

It will be noted that by loosening the bolt 33 the head 30 can be adjusted so as to vary the inclination of the disk 35 with respect to the ground, the passage 27 being enlarged to permit bodily movement of the bolt when necessary. It will be further noted that by loosening the bolt 28 the disk 35 can be adjusted up and down. By loosening the clip 18 the arm 14 can be adjusted so as to vary the angle of the disk 35 with respect to the line of travel.

What is claimed is:

A jointer for plows comprising a bar adapted for attachment at one end to a plow beam, an L-shaped member secured to the other end of the plow beam, a depending portion carried by the L-shaped member and provided with a groove in its lower end having its wall corrugated, a forked member having its arm connecting end seated in said groove and provided with corrugations interlocking with the first named corrugation, said arm connecting end being provided with an oppositely flared passage, a bolt engaged through said passage and through the depending portion for binding the forked member to the depending portion, and a disk rotatably mounted between the arms of the forked member.

In testimony whereof, I affix my signature, in the presence of two witnesses.

PHILIP H. GEISLER.

Witnesses:

HORACE C. SHANK,
RUTH PHEPPS.

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