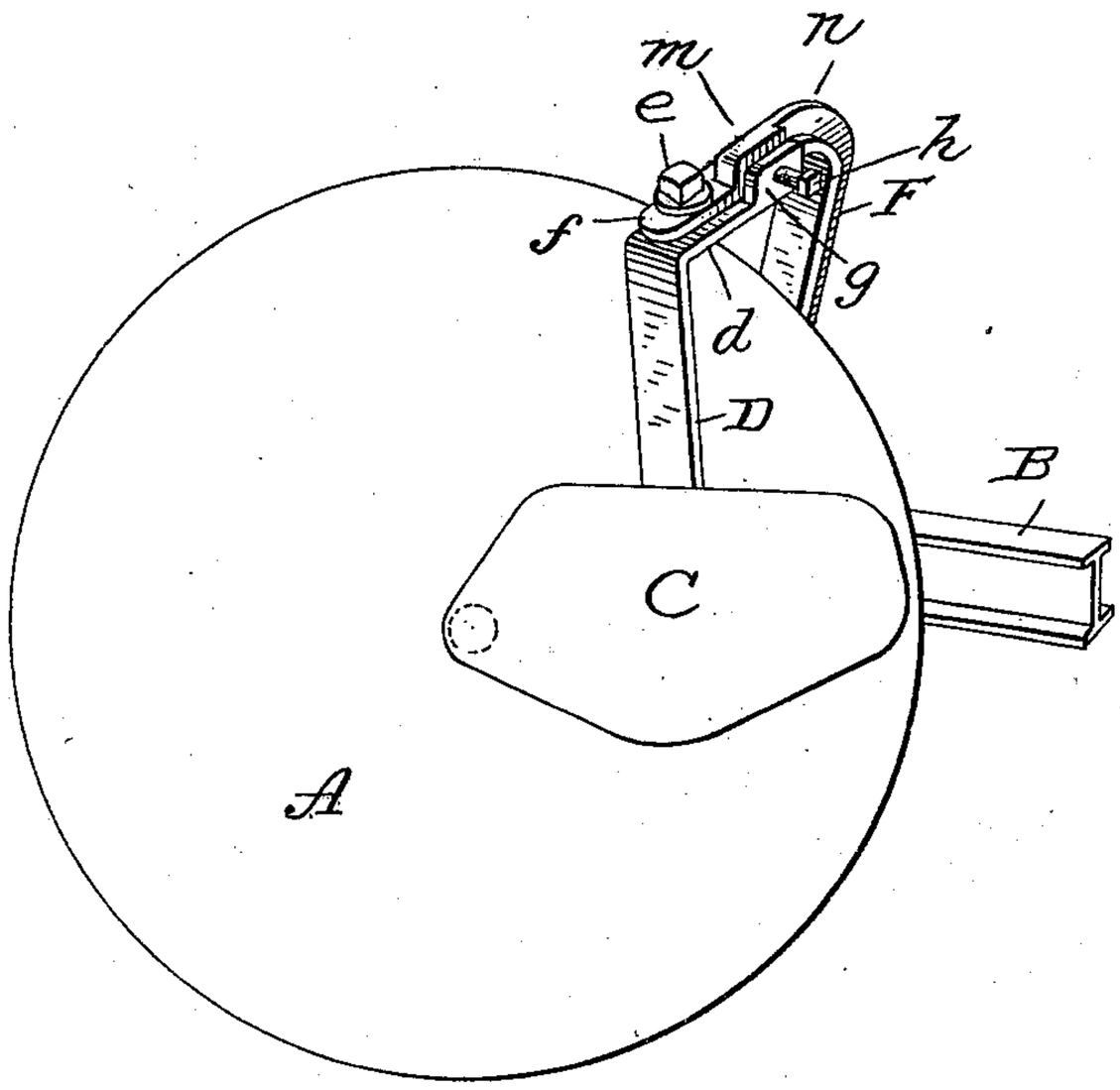
No. 661,137. Patented Nov. 6, 1900.

J. BUCHANAN.

SCRAPER FOR DISK PLOWS.

(Application filed Jan. 15, 1900.)

(No Model.)



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UNITED STATES PATENT OFFICE.

JUDSON BUCHANAN, OF CHATTANOOGA, TENNESSEE, ASSIGNOR TO THE CHATTANOOGA PLOW COMPANY, OF SAME PLACE.

SCRAPER FOR DISK PLOWS.

SPECIFICATION forming part of Letters Patent No. 661,137, dated November 6, 1900.

Application filed January 15, 1900. Serial No. 1,489. (No model.)

To all whom it may concern:

Be it known that I, JUDSON BUCHANAN, a citizen of the United States, residing at Chattanooga, Hamilton county, Tennessee, have invented certain new and useful Improvements in Scrapers for Disk Plows, of which the following is a specification.

My invention relates to disk plows, and particularly to means for supporting and adjusting the scraper in relation to the plow-disks.

In the accompanying drawing I have shown in perspective the support for the scraper in its relation to the plow-disk and part of the plow-beam.

In the drawing the disk A is representative of any form of disk which is ordinarily used in a plow of this character.

B represents part of the plow-beam. The scraper C is carried by an arm D, which extends upwardly therefrom, and is provided at its upper end with a lateral extension *d*. This extension is pivotally connected by a bolt *e* with a horizontal extension *f* of a standard F, which extends from the plow-beam B upward in rear of the disk. The pivot *e* is located a slight distance forward from the end of the lateral extension *d* of the scraper-arm D, and in order to provide for adjusting the position of the scraper relative to the disk I provide an ear *g* at the rear end of the lateral extension *d* of the scraper-arm D, and through this ear a set-screw *h* passes. The standard F is provided with a thickened portion *m* of the strengthening-rib *n*, and this thickened or enlarged portion presents a flat bearing-face for the end of the screw *h*. It will be seen that when the set-screw is screwed inwardly through the lug or ear *g* it will cause the scraper-arm D to swing on the pivot-bolt *e*, the set-screw in this action bearing against the face of the thickened or enlarged portion *m* of the standard. This will serve to tilt the scraper-blade in relation to the disk to the desired degree to secure a proper action of the scraper.

In operation the greater part of the work is done near the out edge of the disk, and consequently near the out end of the scraper, causing very much more pressure against the outer edge of the scraper than the inner edge. To counteract this pressure and prevent excessive friction between the outer edge of the scraper and the outer edge of the disk, the adjusting-screw is provided. In practice it is found that if the outer end of the scraper is thrown slightly away from the disk by this screw the excessive pressure at that end will restore the parallel relation that should exist between the scraper and the disk. While the plow is in operation the scraper should touch the disk, but not bear hard against it, so it will be seen that the nicest adjustment is necessary and can only be had with an adjusting-screw of this kind.

I claim as my invention—

1. In combination with a plow-disk, a scraper, an arm carrying the scraper, a standard to which the arm is pivoted and means for moving one part in relation to the other and holding the parts rigidly in adjusted position to limit the movement of the scraper toward the disk.

2. In combination, the disk, the arm carrying the scraper and having a lateral extension, a standard also having a lateral extension, a pivotal connection between the extensions and set-screw for adjusting the relation between the extensions to set the scraper in proper relation to the disk.

3. In combination, the plow-disk, the scraper, the standard and scraper-arm, each having a lateral extension, and an adjustable connection between the extensions of the arm and standard, substantially as described.

4. In combination, a plow-disk, a scraper, an arm carrying the scraper, a standard, a bolt pivotally connecting the standard and arm, said arm having an ear *g*, and a set-screw passing through the same and engaging the standard, substantially as described.

5. In combination, the disk, a scraper, a scraper-arm connected with the scraper, a standard, a pivotal connection between the standard and scraper-arm, said scraper extending substantially radially and at right angles to the axial line of the pivot of the scraper-arm, and means for adjusting the scraper-arm whereby the outer edge of the scraper will be adjusted in relation to the disk, said means consisting of the set-screw acting as a stop to limit the movement of said outer edge toward the disk.

6. In combination, the standard, a scraper-arm pivoted thereto, a scraper carried by the arm, a plow-disk, and an adjustable stop for limiting the movement of the scraper toward the plow-disk, substantially as described.

7. In combination, the standard, a scraper-arm pivoted thereto, a scraper carried by the arm, a plow-disk, and an adjustable stop for limiting the movement of the scraper toward the plow-disk, said stop comprising a set-screw by which the scraper-arm may be moved, substantially as described.

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

JUDSON BUCHANAN.

Witnesses:

O. E. COLVILLE,

P. THEO. SEITER.