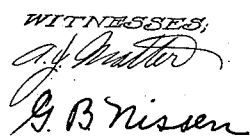


1,066,024.

Patented July 1, 1913.



INVENTOR

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UNITED STATES PATENT OFFICE.

WALTER E. LEAVELL, OF PORTLAND, OREGON, ASSIGNOR TO PERFECTION REMOVABLE
BAR CYLINDER COMPANY.

THRESHER-CYLINDER.

1,066,024.

Specification of Letters Patent.

Patented July 1, 1913.

Application filed November 14, 1912. Serial No. 731,337.

To all whom it may concern:

Be it known that I, WALTER E. LEAVELL, a citizen of the United States, residing at Portland, in the county of Multnomah and State of Oregon, have invented certain new and useful Improvements in Thresher-Cylinders, of which the following is a specification.

This invention pertains to an improvement in thresher cylinders and has for its object to provide a cylinder in which the bars carrying the cylinder teeth may be readily attached and detached.

A further object is to provide a tooth bar which is readily engageable in the cylinder and which will normally retain its position under action, with means for preventing its displacement from its seat.

These and other objects are accomplished by the mechanism illustrated in the accompanying drawing, in which—

Figure 1 is an end elevation of a cylinder showing my improvement applied. Fig. 2 is a front elevation of a portion of the cylinder. Fig. 3 is a detail showing a portion of my improved bar, with a tooth. Fig. 4 is a detail end elevation of a portion of the cylinder partly in section, showing the locking means. Fig. 5 is a top view of same.

Referring to the drawing in detail, 1 represents my improved bar carrying the usual teeth 2 mounted in the usual manner upon the shanks 9, each one being secured by a nut 8. The cylinder head 6, which is mounted upon the shaft 4 is provided about its periphery with a plurality of recesses 7, equally spaced from each other at such distance as will allow the number of bars required to be used on the cylinder. Since a row of teeth will be fixed in the plane of the cylinder head or disk 6, the recessed portion will be further reduced at 7^a to afford space for the nut 8 at the lower side of the bar. The front side portion 11^a of the recess 7 is inclined rearwardly and the front face of the bar is made to conform thereto, thereby forming a means at that side for retaining the bar in place against the strain upon the front portion of the teeth. The rear wall 11 of the recess is formed on the arc of a circle inclining forwardly from the outer edge and the rear face of the bar is made in conformity with it so that when the bar is tilted for-

wardly on its front edge as a pivot, as seen at 1^a, it will have room to swing clear of the back wall of the recess.

In the rear face of the bar, in the plane of each disk of the cylinder, there is formed in the outer portion an inwardly converging recess 11^b having the shape of a conic section. At the rear of each recess 11^b is formed a screw threaded aperture 3^a adapted to receive the correspondingly threaded bolt 3, which has a cone shaped upper portion 3^b adapted to fit in the recess 11^b, so that as the bolt is turned down in its aperture, the upper portion of which is correspondingly enlarged and adapted to register with recess 11^b, it will act as a wedge to force the bar forwardly against the wall 11^a, making its dislodgment impossible, until the bolt is removed. At the lower end of each aperture 3 is formed a transverse opening 5, forming an outlet thereto.

In the front portion of the base of each recess 7 is formed a V-shaped groove 10 which is adapted to receive the correspondingly formed rib 10^a on the lower face of the bar. As the rib is seated in the groove, it will force the bar into proper position for the recess 11^b to receive the bolt head 3^b and at the same time prevent relative lateral movement of the parts. In this manner there is formed a tooth-supporting bar for cylinders, which can be quickly and easily detached and as easily restored. The structure, moreover, is of the simplest form, so that the cost thereof is reduced to a minimum, while its efficiency is increased.

Having thus described my invention what I claim as new and desire to secure by Letters Patent, is—

1. A thresher cylinder comprising disks provided at their peripheries with recesses the forward walls of which are tangentially disposed with relation to arcs described from the centers of the disks, the rear wall of the recesses being arcuate with the chords of the said arcs tangentially disposed with relation to arcs described from the centers of the disks, and tooth bars fitting snugly in said recesses.

2. A thresher cylinder comprising disks provided at their peripheries with recesses, the forward walls of which are tangentially disposed with relation to arcs described from

the centers of the disks, the rear walls of the recesses being arcuate with the chords of the arcs tangentially disposed with relation to arcs described from the centers of the disks, tooth bars fitting snugly in the recesses and bolts screw threaded in the disks and having heads which engage the rear portions of the bars and force the same to-

ward the centers of the disks and against the forward walls of the recesses. 10

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

WALTER E. LEAVELL.

Witnesses:

EDWIN E. HECKBERT,

HAZEL A. ARMSTRONG.

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