F. NOECKER.

ATTACHMENT FOR DISK HARROWS.

APPLICATION FILED MAY 18, 1915.

1,191,985. Patented July 25, 1916.

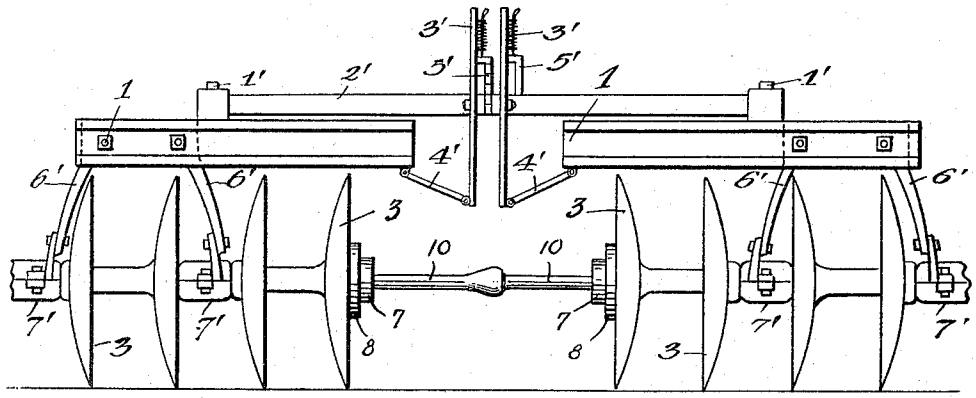


Fig. 1.

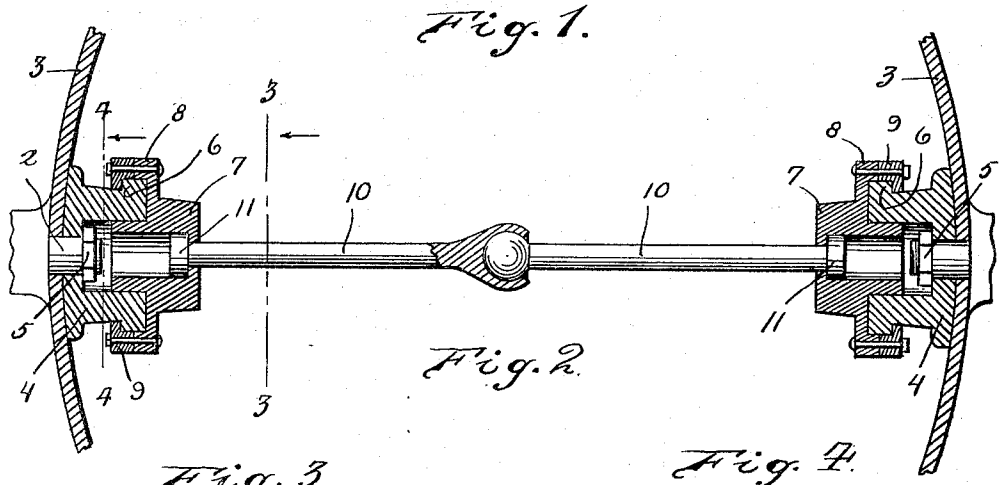


Fig. 2.

Fig. 3

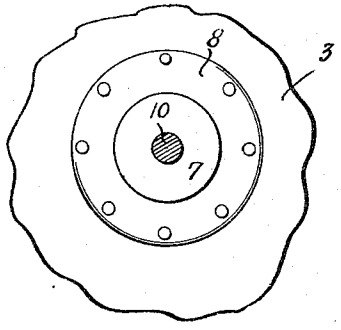
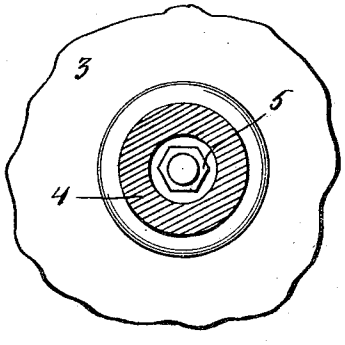


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

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ATTACHMENT FOR DISK HARROWS.

1,191,985. Specification of Letters Patent. Patented July 25, 1916.

Application filed May 18, 1915. Serial No. 28,927.

To all whom it may concern:

Be it known that I, FERD NOECKER, a citizen of the United States, residing at Sanborn, in the county of Barnes, State of North Dakota, have invented certain new and useful Improvements in Attachments for Disk Harrows; and I do hereby declare the following to be a 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 an attachment for disk harrows.

An object of the invention resides in the provision of a device which may be secured between the two inner disks on a disk harrow to relieve the strain which tends to force the said disks apart.

A further object of the invention resides in so constructing the device that it will permit the adjustment of the disks.

With these and other objects in view, such as will appear as the description progresses, my invention comprises the combination and arrangement of parts as set forth in and falling within the scope of the appended claims.

Referring to the drawing: Figure 1 is an elevational view showing my device in place on a disk harrow, only a portion of the harrow being shown, however. Fig. 2 is a longitudinal sectional view of my device. Fig. 3 is a section on line 3—3 of Fig. 2. Fig. 4 is a fragmental detail of the means for securing the device to the harrow disks.

Referring to the drawing wherein like parts are indicated by like characters throughout the several views: In the drawing, I have illustrated a portion of a harrow which includes a pair of beams 1 which are pivotally mounted at 1′ upon a frame 2′. The angular relation of these beams 1 may be varied by the operator by means of a pair of levers 3′ which are connected to the beams by links 4′ and are held in their adjusted positions by the coöperation of pawls thereon with a quadrant rack 5′. Depending from beams 1 are arms 6′ on the lower ends of which bearings 7′ are mounted. Spaced disk shafts 2 are mounted in these bearings and support disks 3, the innermost disks being spaced from each other. In order that these shafts may be strengthened and the end thrust taken off of the shaft bearings I have provided a pair of socket members 4 which are secured to the innermost ends of the disk shafts 2 by nuts 5. Formed on these socket members 4 are circular flanges 6. Mounted on the said socket members are caps 7 which have annular plates 8 formed thereon, each of which plates bears against one side of the adjacent flange 6. Detachably secured to these plates 8 are additional plates 9 which coöperate with the plates 8 to form channels on the caps 7 in which the flanges 6 are located. Extending outwardly from the caps 7 and slidably mounted therein are rods 10, the outward movements of which are limited by the heads 11 thereon. The ends of these rods are joined together by a ball and socket connection midway between the said disks. In using the device the rods 10 will brace the disk shafts so that the end thrust will be taken off of the bearings and when the shafts are adjusted the heads 11 on the shafts 10 will ride in the caps 7 so as to allow such adjustment. It will thus be seen that I have provided an attachment for disk harrows which consists, essentially, of a pair of rods swiveled together which extend between the innermost disks and are secured to the inner ends of the disk shafts so that the force tending to separate the sets of disks will be taken up by the said rods and thus the end thrust on the bearings for the shafts will be overcome.

While I have illustrated and described a particular embodiment of my invention, I have merely done so for the sake of convenience and I do not wish to be limited to the particular embodiment as it is obvious that numerous changes may be made within the details of construction thereof without in any way departing from the spirit of the invention or exceeding the scope of the appended claims.

What I claim is:—

1. In an attachment for disk harrows, having a pair of spaced adjustable disk shafts, a pair of rods swivelly connected together, caps on the ends of said rods, and socket members detachably secured to said caps and adapted to be secured to the inner ends of said shafts.

2. In an attachment for disk harrows having a pair of spaced adjustable disk

shafts, a pair of socket members adapted to be secured to the inner ends of said shafts and having flanges thereon, caps mounted on said socket members, plates formed on said caps and embracing the said flanges, additional plates detachably secured to the first mentioned plates to maintain them on the flanges and a plurality of connected rods extending between and slidably engaged with the said caps.

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

FERD NOECKER.

Witnesses:
P. S. HANNA,
FRED E. STEPHAN.

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