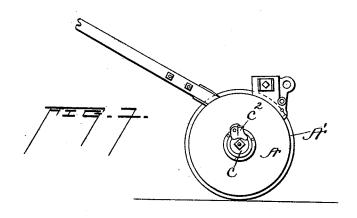
No. 646,506.

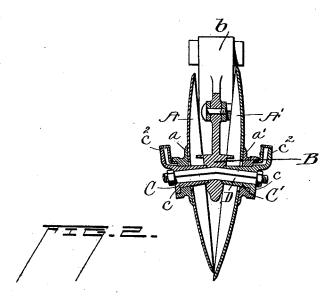
Patented Apr. 3, 1900.

## C. P. SESTER. DOUBLE DISK GRAIN DRILL.

(Application filed Aug. 26, 1899.)

(No Medei.)





Witnesses:

F.C. Skynd Ohoen La Toto. Inventor. Charles O. Sester Ty: W. V. Leff&

## United States Patent Office.

CHARLES P. SESTER, OF PEORIA, ILLINOIS.

## DOUBLE-DISK GRAIN-DRILL.

SPECIFICATION forming part of Letters Patent No. 646,506, dated April 3, 1900.

Application filed August 26, 1899. Serial No. 728,643. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. SESTER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illi-5 nois, have invented certain new and useful Improvements in Double-Disk Grain-Drills; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the 10 art to which it appertains to make and use the

My invention relates to an improvement in the construction of double or twin disk graindrills, and has for its object the provision of 15 two concave disks provided with suitable hubs, of detachable cone-shaped spindles carried through the hubs and purposed to have a bearing relation with the hub which forms a part of the boot, and of a suitable 20 journal-support for the said spindles, and details hereinafter more fully described.

That my invention may be more fully understood, reference is had to the accompanying drawings, in which-

Figure 1 is an elevation of my improved

disk and its coacting parts. Fig. 2 is a vertical cross-section of the same somewhat en-

In the drawings, A A' are concavo-convex 30 disks provided with hubs a a' on their convex surfaces.

B represents a journal support or hub, which is east to and forms a part of the boot b, which is adapted to receive the grain-spout. 35 The disks revolve on suitable spindles, there being one provided for each of the respective disks A A', and are both detachably secured and independent of each other. These spindles on axle are represented as C C' and are 40 cone-shaped, the outer end of the cone representing the larger circumference, which permits of a large bearing-surface for the hubs of the disks. A flange c is shown fitting in a suitable depression formed in the hubs, and  $c^2$   $c^2$  are oil-cups extending up from the spindles C C'.

D is a bolt rectangular throughout the

vided with rounded end portions, on which are secured suitable nuts.

My object in providing a coupling of this character is to preserve the life of the disks, which is accomplished by providing detachable spindles, enabling the user to provide new bearings without buying an entire new 55 set of disks or without in any way injuring the disks should it be necessary to provide new journals. By constructing the journals as shown I am enabled to provide a larger bearing-surface at the outer end of the jour- 60 nal, where there is the most wear, which gives little chance of the same wearing to such an extent as will cause the disks to wabble.

Having thus fully described my invention, what I claim, and desire to secure by Letters 65 Patent, is-

1. In a grain-drill, the combination with the disks A, A', and the journal support or hub B, of the detachably-secured spindles C, C' on which said disks revolve, and of the bolt 70 D, and the oil-cups  $c^2$ , all substantially as and for the purpose described.

2. In a grain-drill, the combination with the detachable spindles C C', provided with the flanges c c, and the angle-bolt D, suitably 75 supported at its middle part in connection with the boot, of the disks A A', and the hubs a a', provided with outwardly-extending flanges overlapping flanges cc, on the detachable sleeves, substantially as specified.

3. In a grain-drill, the combination with the disks A A', provided with the hubs a a' and the journal-support B, of the detachably-secured spindles C C', and the angle-bolt D,

substantially as specified.
4. In a grain-drill, the combination with the disks A A', provided with the hubs a a', having an annular flange at their outer edges, and the journal-support B, of the detachablysecured spindles C C', provided with flanges 90 c c, and the angle-bolt D, substantially as specified.

5. In a grain-drill, the combination with the detachable spindles C C', provided with the flanges c c, and the oil-cups  $c^2$   $c^2$ , and the an- 95 length of contact with the spindles and pro- | gle-bolt D, suitably supported at its middle

part in connection with the boot, of the disks | outwardly-extending flanges bearing over and 10 A A', and the hubs a a', provided with outwardly-extending flanges overlapping flanges c c, on the detachable sleeves, substantially 5 as specified.

6. In a grain-drill the combination with the spindles C C', provided with the flanges c c, detachably carried upon angle-bolt D, of the disks  $\Lambda$  A', and the hubs a a', provided with

upon the flanges cc, on the sleeves, substantially as specified.

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

CHARLES P. SESTER.

Witnesses:

L. J. LIEBENSTEIN, CHAS. W. LA PORTE.