Jan. 16, 1940. C. W. BEAMER 2,187,443

PLOW OR COLTER DISK

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Fig. 1.

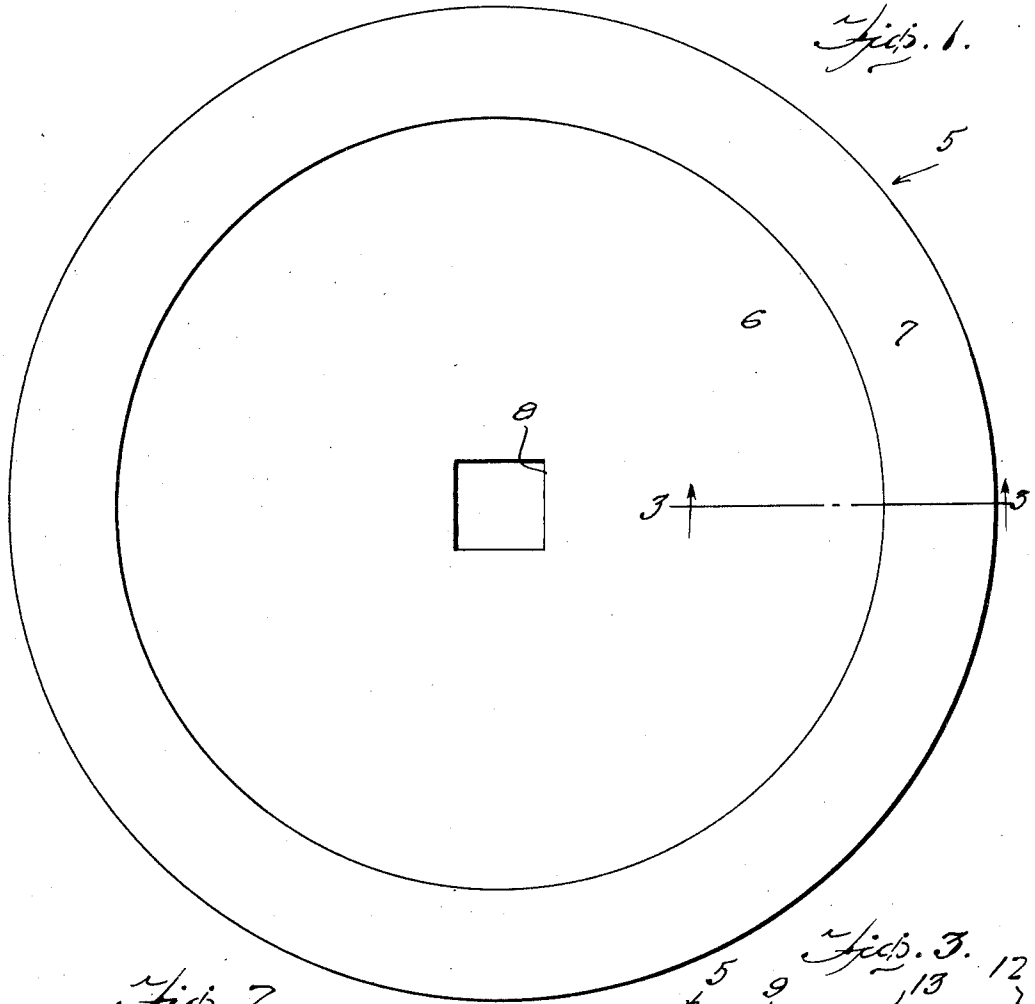


Fig. 3.

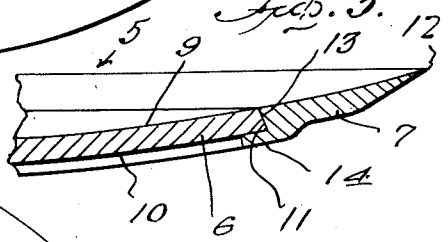
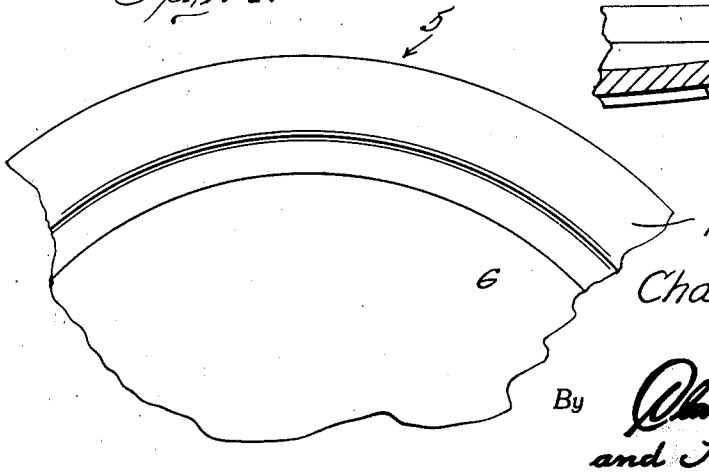


Fig. 2.



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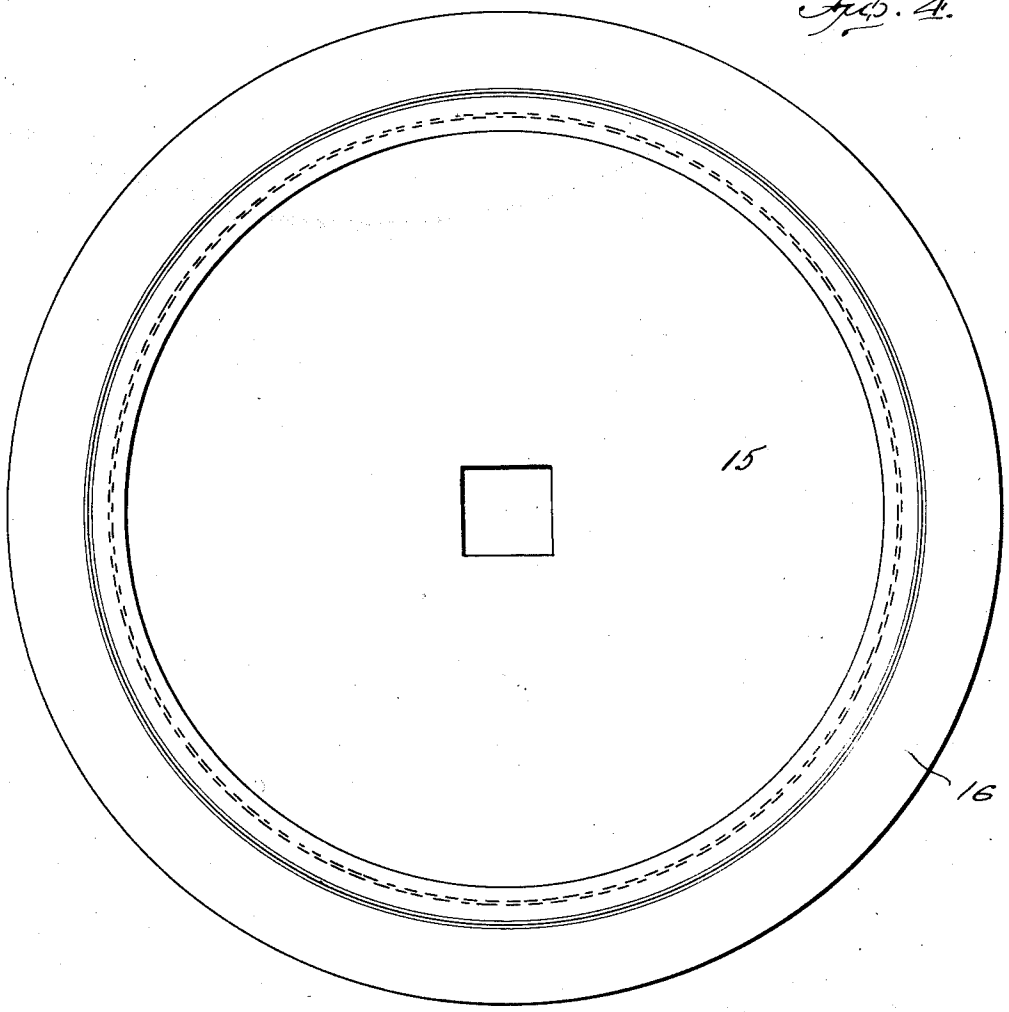
Attorneys

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PLOW OR COLTER DISK

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Fig. 4.



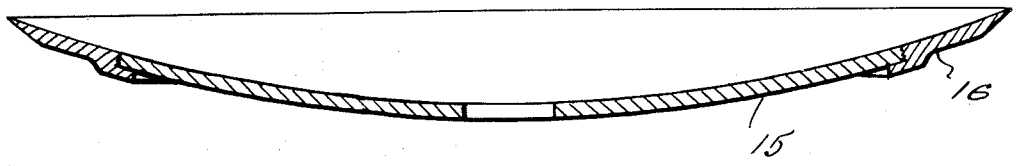
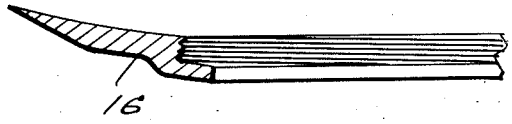


Fig. 5.

Fig. 6.



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2,187,443

PLOW OR COLTER DISK

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Application June 6, 1939, Serial No. 277,709

3 Claims. (Cl. 97—217)

This invention relates to plow disks and has for the primary object the provision of a demountable cutting portion which when worn may be removed from the disk proper to permit another cutting portion to be adapted to the disk proper and thereby restore the device to an efficient condition at a much less expense than when the entire device is discarded and a complete new device subsituted in lieu thereof and also permits the cutting portion to be constructed of a high grade steel to withstand severe usage while the disc portion may be made of a less costly material and may be used indefinitely on a plow by simply removing the cutting portion as it wears beyond the stage of reconditioning or resharpening and substituting a new one in lieu thereof.

With these and other obects in view, the invention consists in certain novel features of construction, combination and arrangement of parts to be hereinafter more fully described and claimed.

For a complete understanding of my invention, reference is to be had to the following description and accompanying drawings, in which

Figure 1 is a side elevation illustrating a plow disk constructed in accordance with my invention.

Figure 2 is a fragmentary side elevation of the plow disk illustrating an opposite side of the latter from that shown in Figure 1.

Figure 3 is a detail sectional view taken on the line 3—3 of Figure 1.

Figure 4 is a side elevation of the plow disk illustrating a modified form of the present invention.

Figure 5 is a sectional view showing the connection between the disk proper and the cutting portion.

Figure 6 is a fragmentary sectional view showing the cutting portion with the seat provided thereon and the screw threaded opening to receive the screw threads of the disk proper.

Referring in detail to the drawings, the numeral 5 indicates as an entirety the plow or colter disk which consists of a disk proper 6 and a cutting portion or rim 7. The disk proper has the usual centrally arranged opening 8 to permit the mounting of the disk on a plow, also the disk proper has a concaved face 9 and a convex face 10. The concaved and convex faces form the disc proper of a dished shape and the peripheral edge of the disk proper is formed with a bevel 11.

The cutting portion or rim 7 has its periphery sharpened to present an anular cutting edge 12 and it is preferable that one face of the portion 7 be concaved to match the concaved face 9 of the disk proper 6 when these parts are assembled as shown in Figure 3. The cutting portion or rim 7 has its inner peripheral edge beveled, as shown at 13, to match the beveled edge of the disk proper 6. An annular flange 14 is integral with the portion 7 and projects beyond the inner peripheral edge to form a seat for the disk proper 6.

To assemble the parts 6 and 7, these parts must be placed in a press for the purpose of flexing the portion 6 so that it will move into engagement with the seat defined by the flange 14 and when relieved of pressure will tightly fit the bevel 13 of the portion 7 and thereby be prevented from moving out of the portion 7 or becoming accidentally disengaged from the seat defined by the annular flange 14. The parts 6 and 7 when assembled as described will be capable of withstanding a maximum amount of side strain before there would be any danger of said parts becoming separated.

It is preferable that the portion 7 be constructed of a high grade steel so that when sharpened will wear for an indefinite length of time. However, after a certain amount of use it naturally will become dull and worn away and when worn to a certain extent that its use is no longer good the portion 7 may be readily separated from the disk proper 6 by the device being placed in a press and the portion 6 flexed to become contracted and thereby move freely out of the portion 7. A new portion 7 may then be applied to the disk proper in the manner heretofore described thereby restoring the device to a serviceable condition without the necessity of discarding the whole device which renders a large saving financially.

Referring to my modified form of the invention, the disk proper is indicated by the character 15 while the cutting rim is indicated by the character 16. The parts 15 and 16 are constructed similarly to the parts 6 and 7 except the part 15 has its periphery screw threaded while the part 17 has its inner periphery screw threaded to match the threads of the part 15, permitting these parts to be threaded together and which permits the cutting rim to be easily demounted when necessary.

It is believed that the foregoing description, when taken in connection with the drawings will fully set forth the construction and advantages of this invention to those skilled in the art to which such invention relates, so that further detailed description will not be required.

Having thus described my invention, what I claim is:

1. A plow disk comprising a disk proper having a beveled peripheral edge, an annular cutting rim having a sharpened peripheral outer edge and a beveled inner peripheral edge to match the beveled edge of the disk proper, and an annular flange formed on the rim and positioned inwardly of the inner beveled edge of said cutting rim to form a seat for the disk proper.

2. A plow disk comprising a disk proper having a beveled peripheral edge, an annular cutting rim having a sharpened peripheral outer edge and a beveled inner peripheral edge to match the beveled edge of the disk proper, and an annular flange formed on the rim and positioned inwardly of the inner beveled edge of said cutting rim to form a seat for the disk proper, said disk proper having a concaved face and a convexed face and said cutting rim having a concaved face to match the concaved face of the disk proper.

3. A plow disk comprising a disk proper having a screw threaded peripheral edge, an annular cutting rim having its outer peripheral edge sharpened and its inner peripheral edge screw threaded to thread on the threaded peripheral edge of the disk proper, and an annular flange formed on the cutting rim and providing a seat for the disk proper.

CHARLES W. BEAMER.