

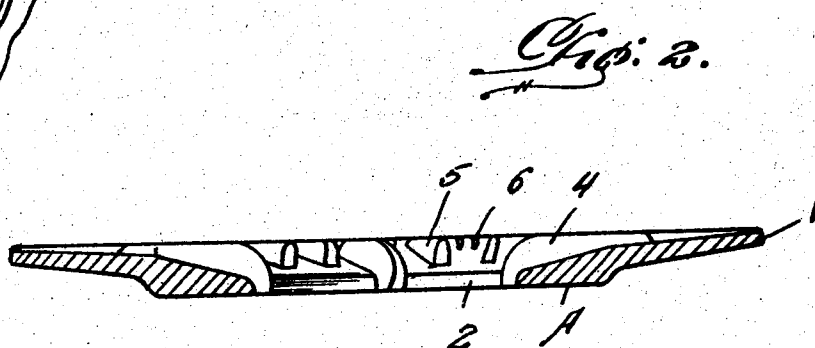
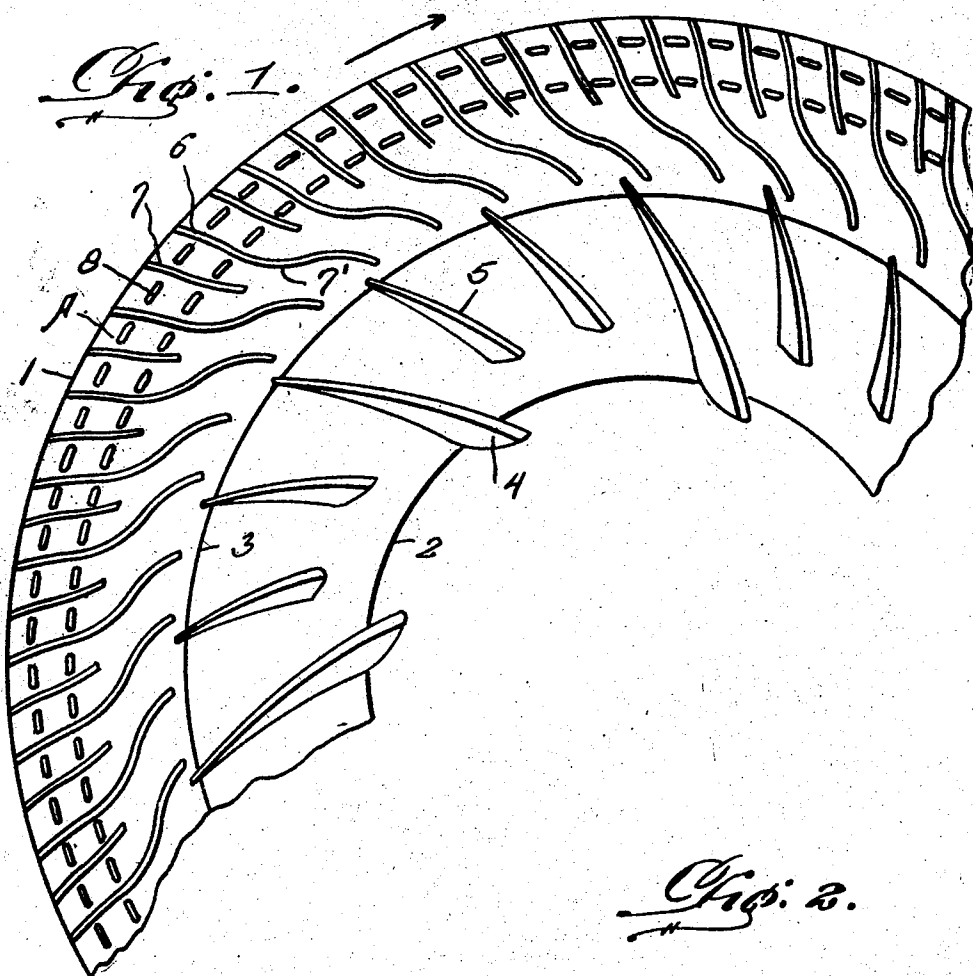
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ROUGHAGE PLATE OR BURR

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ROUGHAGE PLATE OR BURR.

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The present invention relates to a roughage plate or burr, such as are used in fodder grinding machines, and has for its principal object to provide a plate of this nature which will not clog up and which will grind swiftly and thoroughly.

Another important object of the invention is to provide a roughage plate of this nature consisting of a ring body having teeth on one face thereof arranged in series, one series extending beyond the inner periphery of the ring for engaging the fodder and grinding it coarsely, and delivering to an intermediate series, which intermediate series finally delivers the fodder to the cutters or teeth adjacent the outer periphery of the ring for the fine grinding.

Another important object of the invention is to provide retaining elements between the fine grinding cutters so as to prevent any unground fodder from moving beyond the outer periphery of the ring.

Another very important object of the invention is to provide a roughage plate or burr of this nature which will prove durable in use, efficient and reliable in operation, and otherwise well adapted to the purpose for which it is designed.

With the above and numerous other objects in view as will appear as the description proceeds, the invention resides in certain novel features of construction, and in the combination and arrangement of parts as will be hereinafter more fully described and claimed.

In the drawing:—

Figure 1 is a fragmentary plan view of the roughage plate embodying the features of my invention, and

Figure 2 is a transverse section thereof.

Referring to the drawing in detail, it will be seen that A designates the ring body of the plate or burr, which is provided with the outer annular periphery 1 and the inner annular periphery 2. One face of the plate A is beveled inwardly from the outer edge 1 toward the inner edge 2, and the pitch or incline of the bevel sharply increases at an intermediate annular line as is indicated to advantage in Figure 1, at 3.

On the beveled face of the plate A there is disposed a plurality of cutters or teeth 4 extending from the line 3 inwardly beyond

the edge 2. A second series of teeth or cutters 5 extend from the line 3 inwardly and terminate short of the edge 2. A third series of teeth 6 extend inwardly from the edge 1 and are offset as at 7' and then continue inwardly and terminate short of the line 3. A fourth series of cutters or teeth 7 extend inwardly from the edge 1 and terminate approximately at the offset portion 7 of the teeth 6. The teeth or cutters 6 and 7 are alternately arranged and have disposed therebetween retaining elements 8. All of the teeth 4, 5, 6, and 7 and also the retainers 8 have their upper edges in substantially the same plane.

The plate is adapted to rotate in a clockwise direction, as shown in Figure 1 and as indicated by the arrow. The teeth are all disposed substantially in lines forming chords of the circular formation of the plate. As the plate rotates, the portions of the cutters 4 extending inwardly of the edge 2 will engage the fodder and coarsely grind the same, and deliver it to the teeth 5 for further grinding from which it will be delivered to the teeth 6 and 7 for fine grinding. The retainers 8 will prevent any unground fodder from passing beyond the outer edge 1.

It is thought that the construction, operation, and advantages of this invention will be clearly understood by those familiar with the fodder grinding machines now on the market. The present embodiment of the invention has been disclosed merely by way of example, and it is apparent that numerous changes in the details of construction, and in the combination and arrangement of parts may be resorted to without departing from the spirit of the invention as hereinafter claimed or sacrificing any of its advantages.

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

A device of the class described including a ring body having an outer annular edge and an inner annular edge, one face of the ring body being beveled inwardly, the outer portion of the face being at a less bevel pitch than the inner portion, cutters arranged on the beveled face, said cutters being disposed in a plurality of annular series, one series of cutters extending beyond

the inner edge of the body on the inner portion of the face, a second series of cutters extending inwardly from the outer edge of the ring body on the outer portion of the
5 beveled face, a third series of cutters arranged between the first and second series cutters on the outer portion of the beveled face, a plurality of retainers disposed between the cutters of the second series of

cutters, the edges of the cutters and the retainers terminating in substantially the same plane, said cutters all extending in lines substantially forming chords of the curvature of the ring body. 10

In testimony whereof I affix my signature. 15

WALTER E. BAUER.