

H. F. GRITZMACHER.
SNAPPING ROLL.
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1,421,459.

Patented July 4, 1922.

FIG. 1.

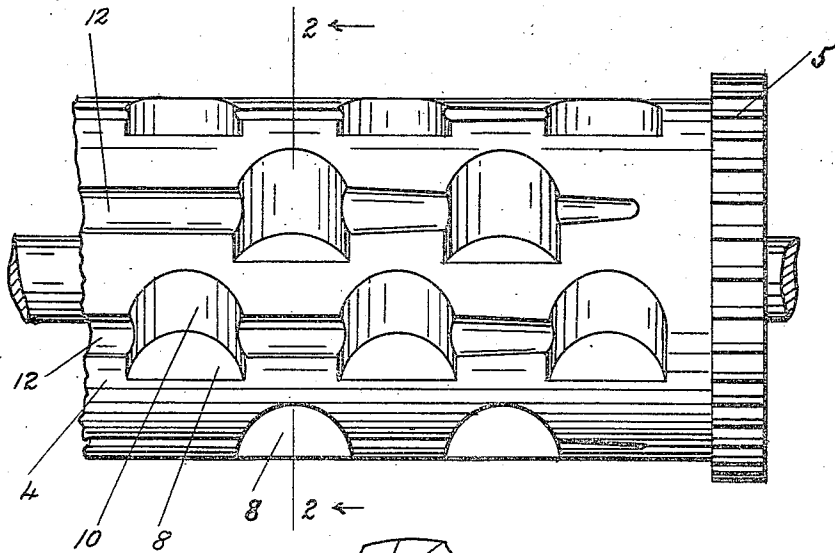
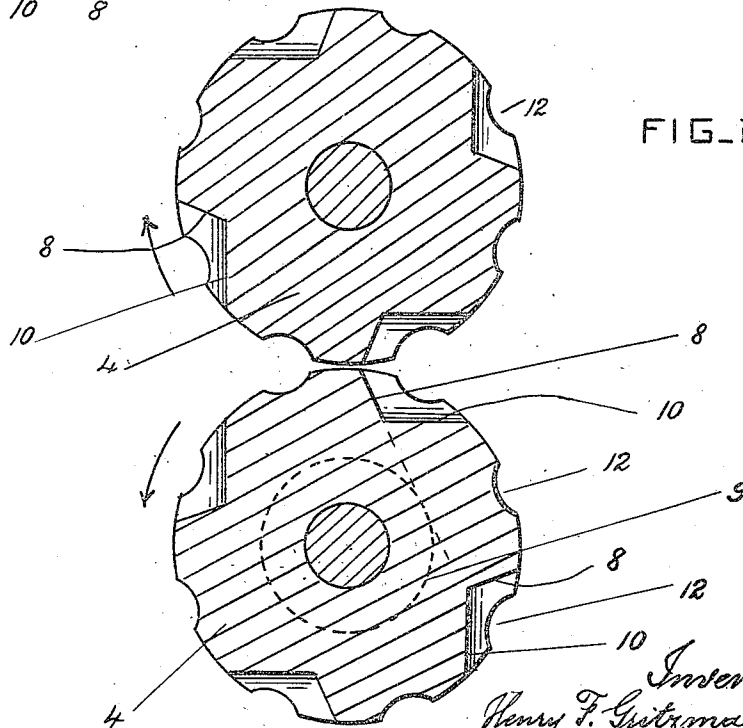


FIG. 2.



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UNITED STATES PATENT OFFICE.

HENRY F. GRITZMACHER, OF LE SUEUR, MINNESOTA.

SNAPPING ROLL.

1,421,459.

Specification of Letters Patent.

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Application filed March 15, 1922. Serial No. 543,944.

To all whom it may concern:

Be it known that I, HENRY F. GRITZMACHER, a citizen of the United States, residing at Le Sueur, in the county of Sibley and State of Minnesota, have invented certain new and useful Improvements in Snapping Rolls, of which the following is a specification.

This invention relates to snapping rolls for use in corn husking and shredding machines; and it consists in providing the rolls with pockets and grooves as hereinafter fully described and claimed.

In the drawings, Figure 1 is a plan view of a portion of a snapping roll constructed according to this invention. Fig. 2 is a cross-section through a pair of rolls, taken on the line 2—2 in Fig. 1.

The rolls 4 used in carrying out this invention are both alike, and are driven simultaneously in opposite directions as indicated by the curved arrows in Fig. 2. This may be accomplished in any approved way, and each roll may have a toothed pinion 5 secured to it which gears into a similar pinion on the other roll. The rolls are journaled in a frame in a similar manner to those shown in the patent issued to Henry L. Ferris on October 6, 1903, No. 740,637, and are pressed towards each other by suitable springs.

In order to remove the cobs from the stalks in a more satisfactory manner than heretofore, each roll is provided with a series of pockets spaced apart around its periphery, and arranged in straight rows longitudinally. The bottom 8 of each pocket is flat, and is a segment of a circle in shape, and is arranged tangentially of a circle 9 drawn concentric with the roll and substantially one-half of it in diameter.

The side portion 10 of the pocket is arcuate or curved in shape to correspond with the arc of the bottom 8, and its middle part is arranged at substantially an angle of 110° with the bottom 8.

Longitudinal concave grooves 12 are formed in the periphery of the roll, cross-

wise of each row of pockets, and the end portions of these grooves are tapered between the last two pockets at each end of the rolls, so that the end portions of the pair of rolls have no grooves in them, and run smoothly when pressed together.

These longitudinal grooves make it easier to feed the corn between the rolls, and enable the rolls to catch the stalks better when the stalks are dry, and at the same time they do not shell the corn.

The pockets in the rolls are arranged so that they run directly opposite to each other in pairs, and when formed as hereinbefore described are found to be very effective in snapping the cobs from the stalks. The pockets of each row are preferably arranged in staggered relation to the pockets of the rows adjacent to it.

What I claim is:

1. A snapping roll provided with a series of pockets in its periphery, each pocket having a flat segment-shaped bottom arranged tangentially of a circle formed concentric with the roll and substantially one-half of it in diameter, and having a curved side portion which corresponds in curvature with the arc of the segment-shaped bottom and which has its middle part arranged at an obtuse angle to the said flat bottom.

2. A snapping roll provided with a series of pockets in its periphery, each pocket having a flat segment-shaped bottom arranged tangentially of a circle formed concentric with the roll and substantially one half of it in diameter, and having a curved side portion which corresponds in curvature with the arc of the segment-shaped bottom and which has its middle part arranged at an obtuse angle to the said flat bottom, the said pockets being arranged in rows longitudinally, and the said roll being provided with longitudinal concave grooves extending crosswise of and between the curved side portions of the said pockets.

In testimony whereof I have affixed my signature.

HENRY F. GRITZMACHER.