

Oct. 28, 1941.

G. E. MARTIN

2,261,069

HUSKING ROLLS

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2 Sheets-Sheet 1

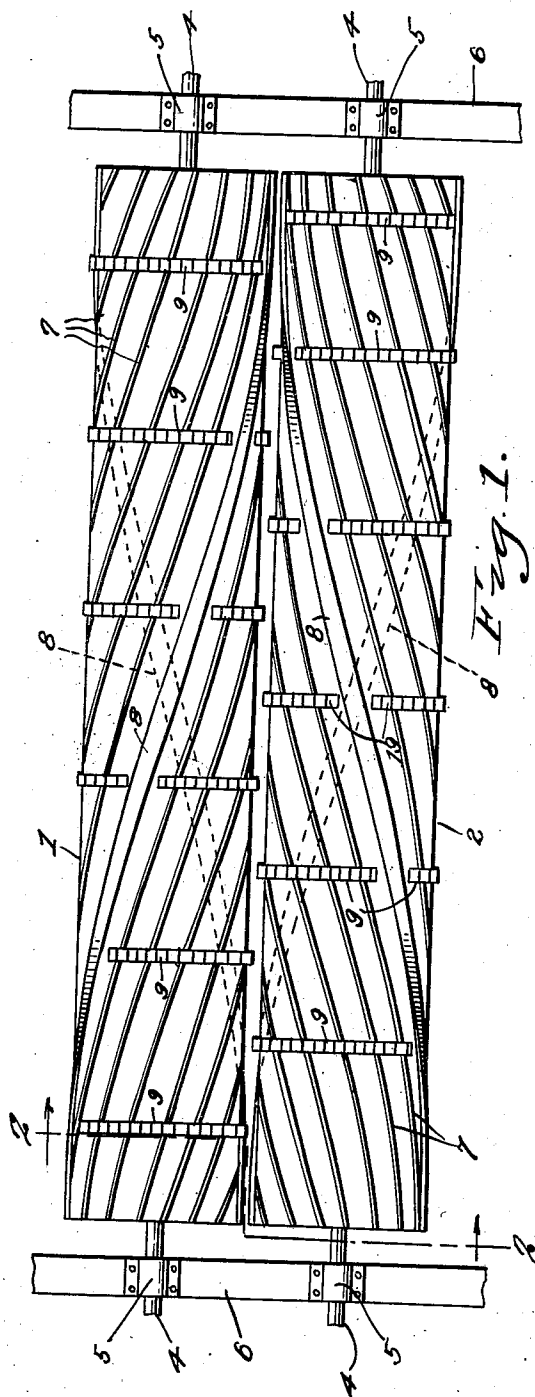


Fig. 1.

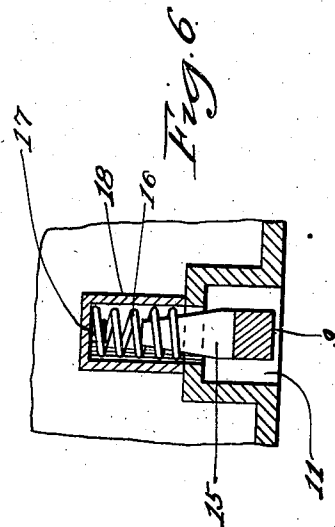


Fig. 6.

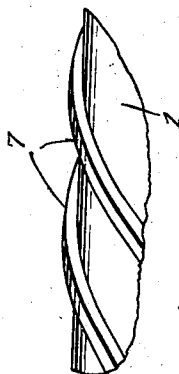


Fig. 5.

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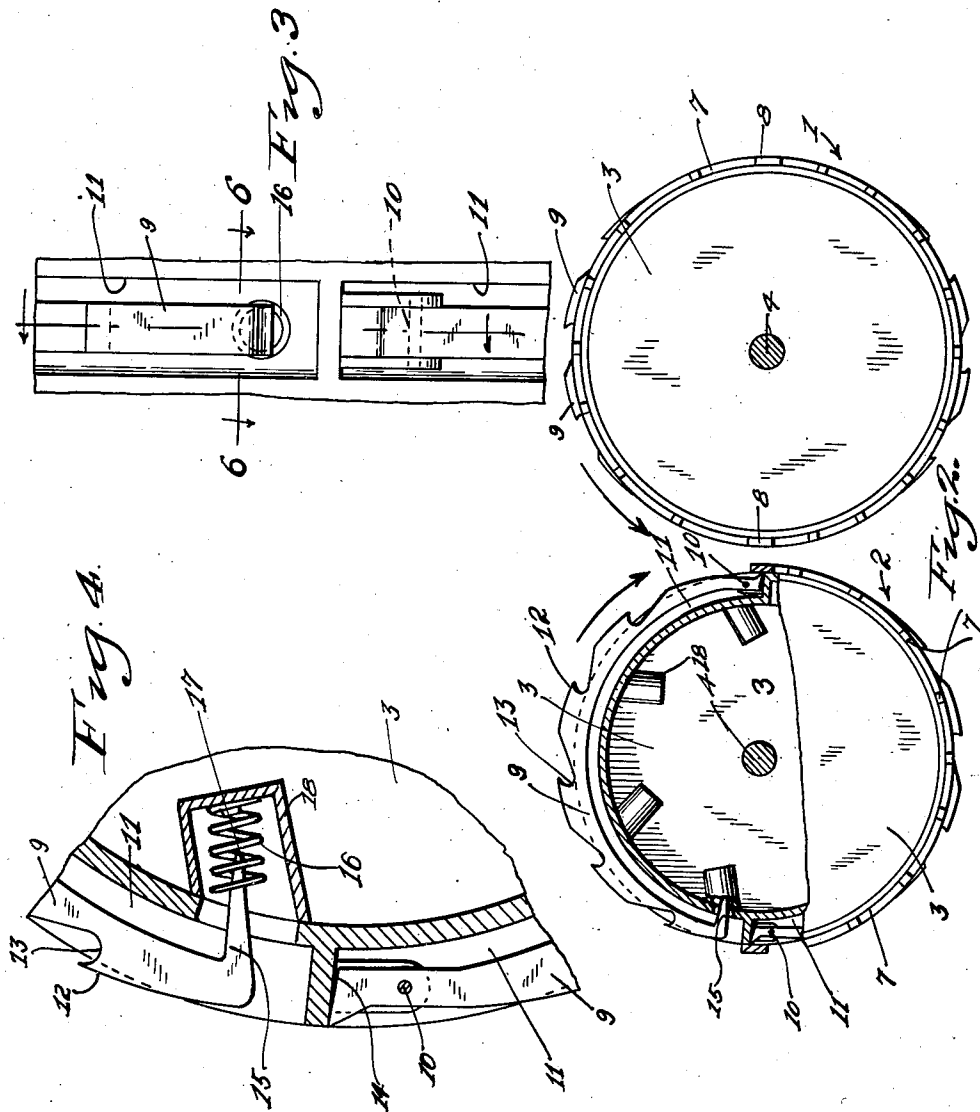
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2 Sheets-Sheet 2



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HUSKING ROLLS

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4 Claims. (Cl. 130—5)

My invention relates to improvements in husking rolls for corn husking machines, the principal object in view being to provide a pair of rolls constructed for cooperation to rapidly husk corn clean, either wet or dry, and which will not injure the ears.

Another object is to provide a pair of husking rolls for the purpose above set forth which are constructed for prolonged use and high speed operation and are comparatively inexpensive to manufacture.

To the accomplishment of the above, and subordinate objects presently appearing, a preferred embodiment of my invention has been illustrated in the accompanying drawings, set forth in detail in the succeeding description and defined in the claims appended hereto.

In said drawings:

Figure 1 is a view in top plan of a preferred embodiment of my invention,

Figure 2 is a view in transverse section taken on the line 2—2 of Figure 1 and drawn to an enlarged scale,

Figure 3 is a fragmentary view in plan,

Figure 4 is a fragmentary view in section taken on the line 4—4 of Figure 3,

Figure 5 is a fragmentary view in side elevation, and

Figure 6 is a view in transverse section taken on the line 6—6 of Figure 3.

Referring to the drawings by numerals, according to my invention, a pair of husking rolls 1, 2, of cylindrical form and having closed ends 3 are mounted in side-by-side parallel relation, with the usual clearance therebetween, and by means of end trunnions 4 journaled in bearings 5 suitably secured to supporting bars 6, the cylinders being of the same and uniform diameter. The rolls 1, 2, are, as usual, designed to rotate in unison in opposite directions, represented by the arrows in Figure 2, to feed the corn therebetween. Any suitable means may be utilized for rotating the rolls 1, 2, and since such means forms no part of the present invention, none has been illustrated in the drawings.

Each of the rolls 1, 2, is provided with longitudinally extending, small, flat ribs 7 arranged in long spirals on the same and extending from end to end thereof, with the exception presently noted, said ribs being spirally arranged on one roll reversely relative to those on the other roll, and said ribs tending to grip and feed the corn between the rolls in a manner which will be understood.

A pair of rubbing bars 8 are provided on each

roll 1, 2, on opposite sides of the roll, respectively, said bars being higher and heavier than the ribs 7 and extending from end to end of the roll in a half spiral, as best shown in Figure 1, the bars 8 of each pair spiralling in relatively reverse arrangement and one of said bars of each pair spiralling in correspondence with the ribs 7 of the associated roll. The function of the pairs of rubbing bars 8, as will be understood, is to effect a rubbing action against the ears of corn progressively under rotation of the rolls and in relatively reverse directions lengthwise of said ears.

Each roll 1, 2, is provided with two series of transversely extending, substantially semi-circular husking, or stripping, bars 9 spaced apart transversely longitudinally of the roll, preferably equidistantly. The two series of bars 9 extend between the pairs of rubbing bars 8 of the roll upon opposite sides of said bars 9, respectively, so that they are arranged in spiral relation around the roll, and the bars of the two series are opposed in pairs disposed end to end. Also the pairs of bars 9 of each roll are staggered relative to those of the other roll.

Each husking, or stripping, bar 9 is pivoted, as at 10, at one end thereof in one end of a transversely extending, semi-circular peripheral channel 11 provided in the roll, and the other end of the bar is yieldingly supported so that the bar is urged outwardly of the channel to project the outer edge of the same beyond the periphery of the roll and beyond the ribs 7 and rubbing bars 8. The outer edge of each husking or stripping bar 9 is provided with teeth spaced along the same and designated 12, said teeth having undercut leading sides as at 13. The pivoted end of each husking or stripping bar 9 is flat, as at 14, and coacts with the corresponding end of the channel 11 to limit outward pivotal movement of the bar. For yieldingly supporting said other end of the same, each bar 9 is provided with an intumed end 15 fitting into a coil spring 16 having one end fixed to and surrounding a stud 17 in the bottom of a cylinder-like socket 18 extending inwardly from the circumferential portion of the roll, the spring being arranged to flex laterally to compensate for the throw of said other end of the bar.

As will be understood, under rotation of the rolls 1, 2, the described husking or stripping bars 9 tear the husks off the ear of corn with strokes delivered crosswise thereof and thereby remove from the ears of corn the husks loosened and partially removed by the ribs 7 and rubbing bars

8, said bar 9 yieldingly engaging the husks so as not to damage the ears.

The foregoing will, it is believed, suffice to impart a clear understanding of my invention without further explanation.

Manifestly the invention, as described, is susceptible of modification without departing from the inventive concept, and right is herein reserved to such modifications as fall within the scope of the subjoined claims.

What I claim is:

1. A pair of husking rolls of the same and uniform diameter rotatably mounted side by side, each roll comprising longitudinally extending small flat ribs arranged in long spirals extending from end to end thereof, the ribs on one roll spiralling reversely relative to those on the other roll, and a plurality of semi-circular toothed stripping bars yieldingly mounted in the circumferential portion of each roll to extend transversely thereof and spaced apart longitudinally of each roll, said stripper bars being arranged spirally around the rolls.

2. A pair of husking rolls of the same and uniform diameter rotatably mounted side by side, each roll comprising longitudinally extending small flat ribs arranged in long spirals extending from end to end thereof, the ribs on one roll spiralling reversely relative to those on the other roll, and a plurality of semi-circular toothed stripping bars yieldingly mounted in the circumferential portion of each roll to extend transversely thereof and spaced apart longitudinally of

each roll, said stripper bars being arranged spirally around the rolls, the stripper bars of one roll alternating with those of the other roll.

3. A pair of husking rolls of the same and uniform diameter rotatably mounted side by side, each roll comprising longitudinally extending small flat ribs arranged in long spirals extending from end to end thereof, the ribs of one roll spiralling reversely relative to those on the other roll, and a plurality of semi-circular toothed stripping bars yieldingly mounted in the circumferential portion of each roll to extend transversely thereof and spaced apart longitudinally of each roll, said stripper bars being arranged spirally around the rolls, said stripper bars being disposed in opposed pairs on each roll.

4. A pair of husking rolls of the same and uniform diameter rotatably mounted side by side, each roll comprising a pair of peripheral gleaning bars upon opposite sides thereof extending from end to end thereof and forming a half spiral, respectively, each bar spiralling reversely relative to the other, and a plurality of semi-circular toothed stripper bars mounted in the circumferential portion of each roll to extend crosswise intermediate the pair of gleaning bars thereof, said stripper bars being arranged in pairs opposed end to end in each pair upon opposite sides of the gleaning bars, respectively, said bars being pivotally mounted at one end and yieldingly mounted at the other end, respectively.

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