J. A. STONE.

SNAPPING ROLLERS FOR CORN HARVESTERS.

APPLICATION FILED DEC. 2, 1908.

914,465. Patented Mar. 9, 1909.

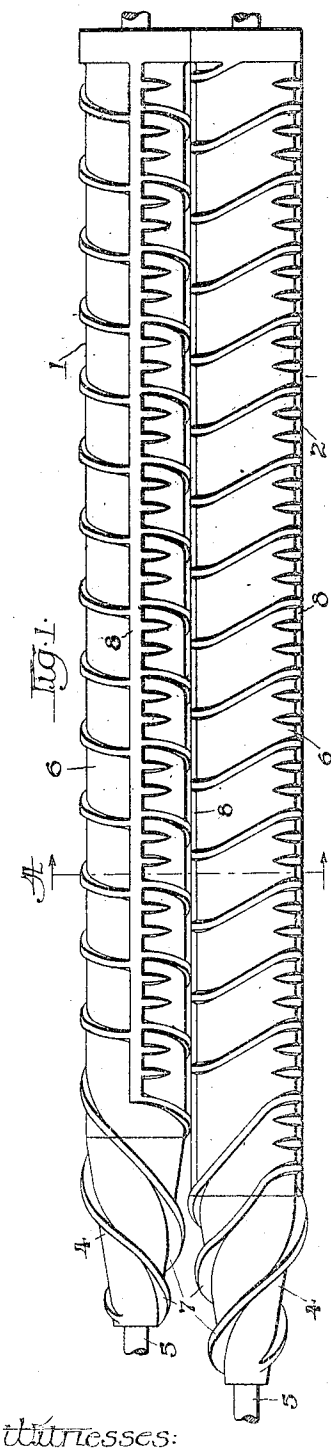


Fig. 1.

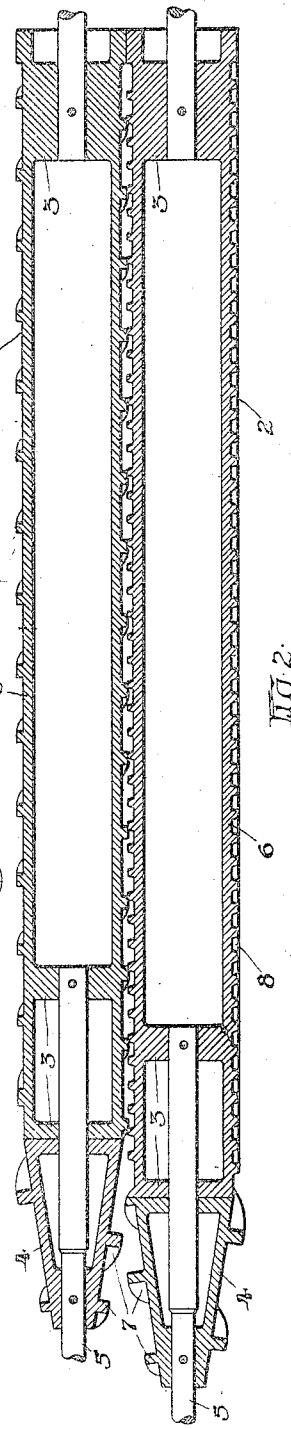


Fig. 2.

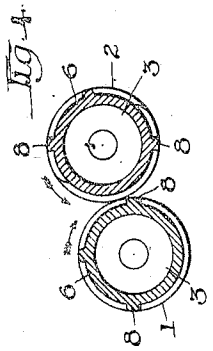


Fig. 4.

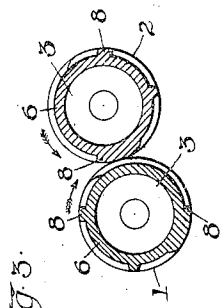


Fig. 5.

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UNITED STATES PATENT OFFICE.

JOHN A. STONE, OF CHICAGO, ILLINOIS, ASSIGNOR TO INTERNATIONAL HARVESTER COMPANY, A CORPORATION OF NEW JERSEY.

SNAPPING-ROLLER FOR CORN-HARVESTERS.

No. 914,465. Specification of Letters Patent. Patented March 9, 1909.

Application filed December 2, 1908. Serial No. 465,721.

To all whom it may concern:

Be it known that I, JOHN A. STONE, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Snapping-Rollers for Corn-Harvesters, of which the following is a specification.

My invention relates to snapping rollers for corn harvesters in the class designed to receive the standing stalks between a pair of coacting rollers rotating in opposite directions and, while moving the stalks rearward and downward, snap the ears therefrom; the objects of the invention being to provide a pair of coacting rollers with improved means for moving the stalks rearward, and efficient means for severing the ears therefrom that will be aggressive in operation and offer a minimum resistance against the rotative movement of the rollers. These objects are attained by means of the mechanism illustrated by the accompanying drawing, in which—

Figure 1 is a top plan view of a pair of coacting snapping rollers having my invention embodied therein; Fig. 2 is a longitudinal section of Fig. 1; Fig. 3 is a cross-section of Fig. 1 along line A—B; and Fig. 4 represents a cross section of Fig. 1 along the same line with the rollers rotated in opposite directions a distance equal to ninety degrees.

Like reference characters designate the same parts throughout the several views.

1 and 2 represent coacting snapping rollers having journals 3 at opposite ends thereof, the rollers being preferably made in two parts having tapering portions 4 at their receiving ends secured to shafts 5, and body portions 6 of equal diameter throughout their length and having their forward ends secured to the same shafts. The receiving ends of the rollers are provided with spirally arranged ribs 7 upon their peripheries, designed to engage with the stalks in a manner to conduct them rearward as the machine advances. The body of each roller is provided with two longitudinal ribs 8 arranged diametrically opposite each other, and the rotative movement of the rollers is so timed that the ribs upon one roller will not meet those upon the coacting roller but be separated therefrom a distance equal to ninety degrees. Between each pair of longitudinal ribs are other peripheral ribs arranged with equal spaces between them and having their body portions spirally arranged relative to the axes of the rollers, and rearwardly inclined in a direction opposite to the rotative movement of the rollers for the purpose of conducting the stalks rearward as they are being drawn downward between the coacting rollers. The spirally arranged ribs are connected at their opposite ends with the longitudinally arranged ribs, and for a short portion of their length adjacent thereto arranged in a circumferential direction, the purpose of which is to momentarily arrest the rearward movement of the stalks and allow the longitudinal ribs to sever the ears therefrom.

To render the ear snapping mechanism more effective, there is provided a series of short circumferential ribs between each pair of spirally arranged ribs, that have one end connected with the longitudinal ribs upon the side in the direction of the rotation of the rollers, their opposite ends being pointed.

What I claim as my invention, and desire to secure by Letters Patent, is:

1. A snapping mechanism for corn harvesters including, in combination, a snapping roller having ear severing ribs arranged longitudinally thereon, a series of ribs having their body portions arranged spirally relative to the axis of the roller, their opposite ends connected with said longitudinal ribs and arranged circumferentially adjacent thereto.

2. A snapping mechanism for corn harvesters including, in combination, a snapping roller having ear severing ribs arranged longitudinally thereon, a series of ribs having their body portions arranged spirally relative to the axis of the roller and their opposite ends connected with said longitudinal ribs and arranged circumferentially adjacent thereto, and a series of short circumferential ribs upon that side in the direction of the rotative movement of the roller.

3. A snapping mechanism for corn harvesters including, in combination, a pair of coacting snapping rollers having ear severing ribs arranged longitudinally thereon, and a series of ribs having their body portions arranged spirally relative to the axes

of the rollers and their opposite ends connected with said longitudinal ribs and arranged circumferentially adjacent thereto.

4. A snapping mechanism for corn harvesters including, in combination, a pair of coacting snapping rollers having ear severing ribs arranged longitudinally thereon, a series of ribs having their body portions arranged spirally relative to the axes of said rollers and their opposite ends connected with said longitudinal ribs and arranged circumferentially adjacent thereto, the relative rotative movement of said coacting rollers being timed to bring the longitudinal ribs of one roller in advance of those upon the other.

5. A snapping mechanism for corn harvesters including, in combination, a pair of coacting snapping rollers having ear severing ribs arranged longitudinally thereon, a series of ribs having their body portions arranged spirally relative to the axes of said rollers and their opposite ends connected with said longitudinal ribs and arranged circumferentially adjacent thereto, and a series of short circumferential ribs connected with said longitudinal ribs upon that side in the direction of the rotative movement of the rollers.

6. A snapping mechanism for corn harvesters including in combination, a pair of coacting snapping rollers having ear severing ribs arranged longitudinally thereon, a series of stalk advancing ribs arranged spirally relative to the axes of said rollers, and means adjacent said longitudinal ribs for arresting the rearward movement of the stalks.

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