

March 30, 1937.

W. O. LUNDQUIST ET AL

2,075,448

HUSKING ROLLER

Original Filed Nov. 17, 1934

2 Sheets-Sheet 1

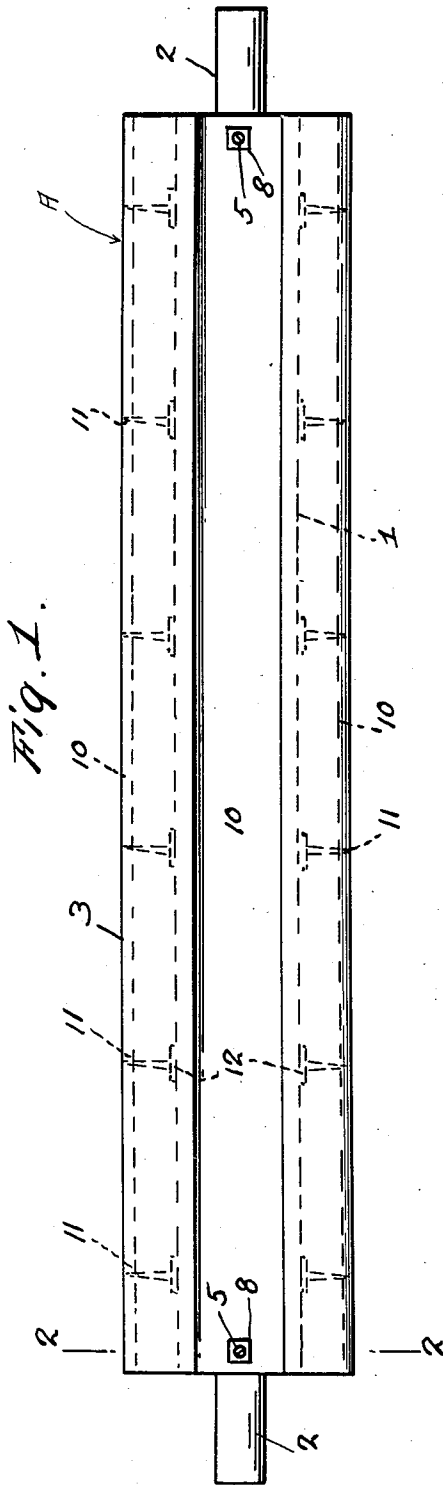
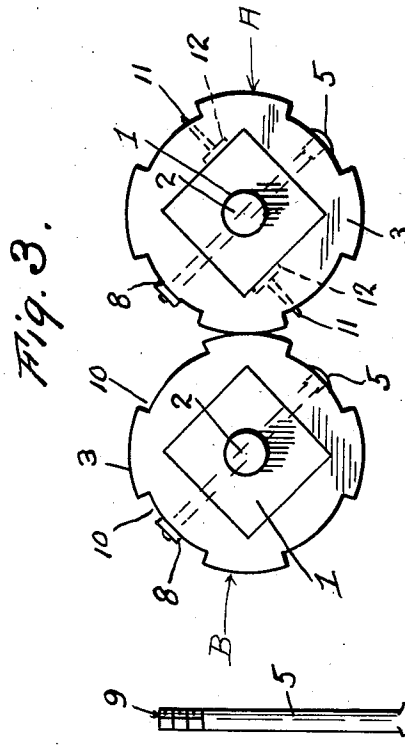
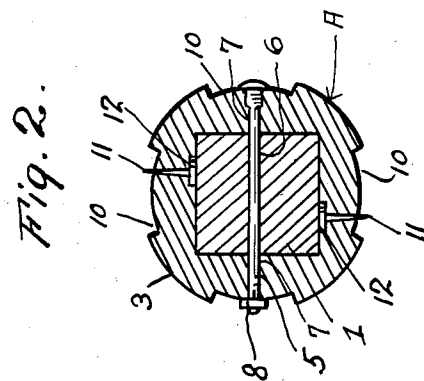


Fig. 4.



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Fig. 5.

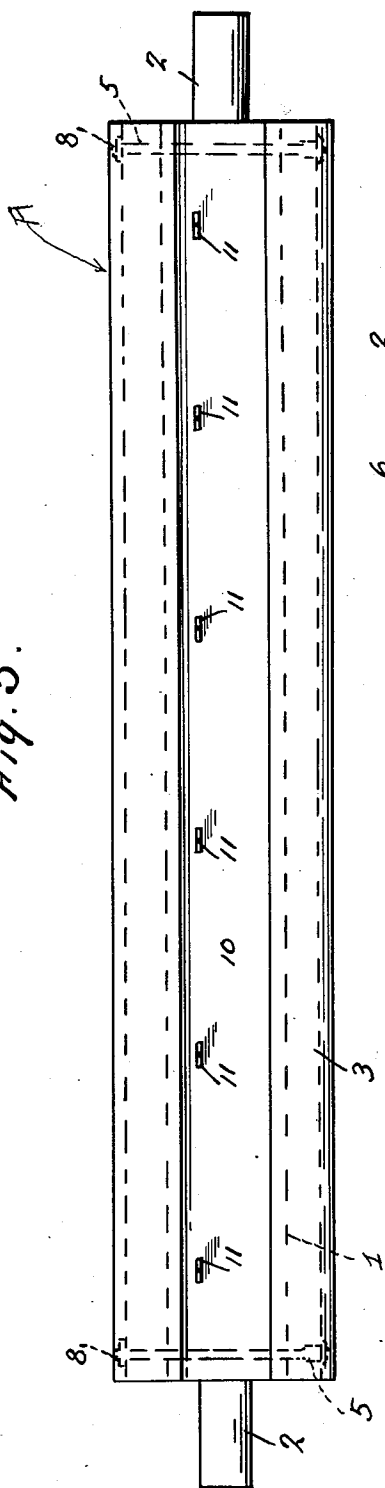


Fig. 6.

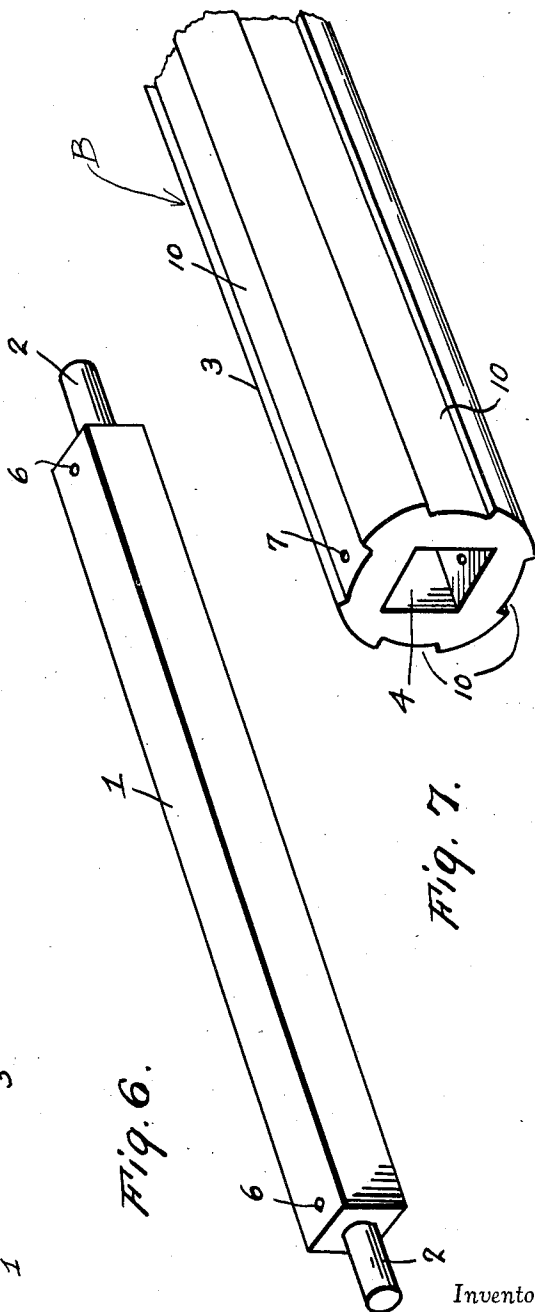


Fig. 7.

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UNITED STATES PATENT OFFICE

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HUSKING ROLLER

Willard O. Lundquist and Robert W. Ma Comb,
Cherokee, IowaApplication November 17, 1934, Serial No. 753,523
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2 Claims. (Cl. 130—5)

This invention relates to husking rollers which are grouped in pairs and mounted in the husking machine whereby the husks are removed from the ears of corn passing between the pairs of rotating rolls.

One of the objects of the invention is to form each roll of the pair of rolls with a rubber casing carrying axial peripheral grooves and mount the rubber casing on a square shaft to prevent the casing from slipping.

Another feature of the present invention is to make the rolls of each pair of the same size, place husking pins in certain of the grooves on one roller, and have the grooves of each roll register with the grooves of its companion roll thereby causing the ribs between the grooves to engage in abutting relation and as a result providing cleaner husking of the ears with less shelling of the corn.

With the foregoing and other objects in view the invention consists of a novel combination, construction and arrangement of parts as will be hereinafter more specifically described and illustrated in the accompanying drawings, wherein is shown the preferred form of the invention, but it is to be understood that changes, variations and modifications may be resorted to without departing from the spirit of the claims hereunto appended.

In the drawings wherein like reference characters denote corresponding parts throughout the several views:

Figure 1 is an elevation of one of the improved rollers shown on the right in Figure 3 of the drawings.

Figure 2 is a section taken substantially on line 2—2 of Figure 1.

Figure 3 is an end view showing how the pair of rollers will operate with each other in a husking machine.

Figure 4 is a view of one of the bolts.

Figure 5 is an elevation taken a quarter of a turn from Figure 1.

Figure 6 is a perspective view of the metal shaft.

Figure 7 is a perspective view of the rubber part of the roll on the left in Figure 3 of the drawings.

In the drawings, A indicates one of a pair of companion rolls and B indicates the other of a pair of companion rolls which are adapted for being rotatably mounted in a husking machine (not shown). This pair of husking rollers A, B rotate in unison and are of the same size. Each roller is formed in the same manner with the exception of the husking pins 11 and it is

believed that a description of the one will clearly teach the formation of the other.

The shaft 1 of each roller has its major portion of rectangular shape in cross section with its ends reduced and rounded to form the trunnions 2, the shaft being formed of metal or any other suitable material. The rubber part of the shaft is shown at 3 and has a square bore 4 for receiving the rectangular portion of the shaft 1 and the two parts are connected together by the bolts 5, one of which passes through each end portion of the roller. The shaft 1 is formed with holes 6 for receiving the bolts and the rubber member 3 also has the holes 7 registering with the holes 6 in which the bolts are mounted. It is pointed out that the bolts extend diametrically through the shaft and the rubber casing 3. Nuts 8 are threaded on the bolts, and the threaded part of each bolt is split as shown at 9 so that this end can be clinched over the nut.

The rubber casing or member 3 is formed with longitudinally extending grooves 10, preferably four in number and of the shape shown and the heads of the bolts and the nuts are located in the opposed grooves. Both rolls A and B have the above described characteristics.

In only one of the husking rolls A are disposed the husking pins 11. The husking pins 11 are arranged in an aligned series in the one groove and another aligned series in the diametrically opposite groove. The series of pins in the one groove is offset with respect to the series of pins in the opposite groove. The series of pins in the roller A are disposed substantially at right angles with respect to the bolts 5. Each pin is formed with a head 12 and a portion of its shank embedded in the rubber casing or member 3 leaving a projecting portion extending into the respective grooves substantially flush with the ribs between the grooves. It will be seen by referring to Figure 2 of the drawings that the heads 12 of the pins bear against the face of the shafts 2.

As shown in Figure 3, the rollers are so arranged that the ribs formed by the grooves 10 will coact with each other during the rotation of the rollers, and these rollers rotate in unison.

Due to the fact that the husking pins are simply held by the rubber, they are not stationary and thus they will pick the husks from the ears just as efficiently when the husks are wet as they will when the husks are dry.

These rubber covered rollers will clean practically all husks from the ears with the minimum amount of shelling of the corn. When the rubber parts become worn, it can be readily removed

from the shaft and a new part substituted therefor.

Having described our invention, what we claim as new is:

- 5 1. A husking roll comprising a shaft of non-circular shape in cross section and a rubber covering for the shaft having a bore of non-circular shape to receive the shaft, said rubber part having longitudinally extending grooves therein and
10 husking pins embedded in the rubber and having their points projecting into the grooves and the heads thereof disposed between the inner side of the rubber covering and the shaft.

2. A husking roll comprising a shaft of non-circular shape in cross section and a rubber covering for the shaft having a bore of non-circular shape to receive the shaft, said rubber part having longitudinally extending grooves therein and
5 husking pins embedded in the rubber and having their points projecting into the grooves and the heads thereof disposed between the inner side of the rubber covering and the shaft, and bolts
10 for detachably connecting the rubber member to the shaft.

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