

(No Model.)

L. D. SWART.
CORN HUSKING MACHINE.

No. 559,548.

Patented May 5, 1896.

Fig. 1.

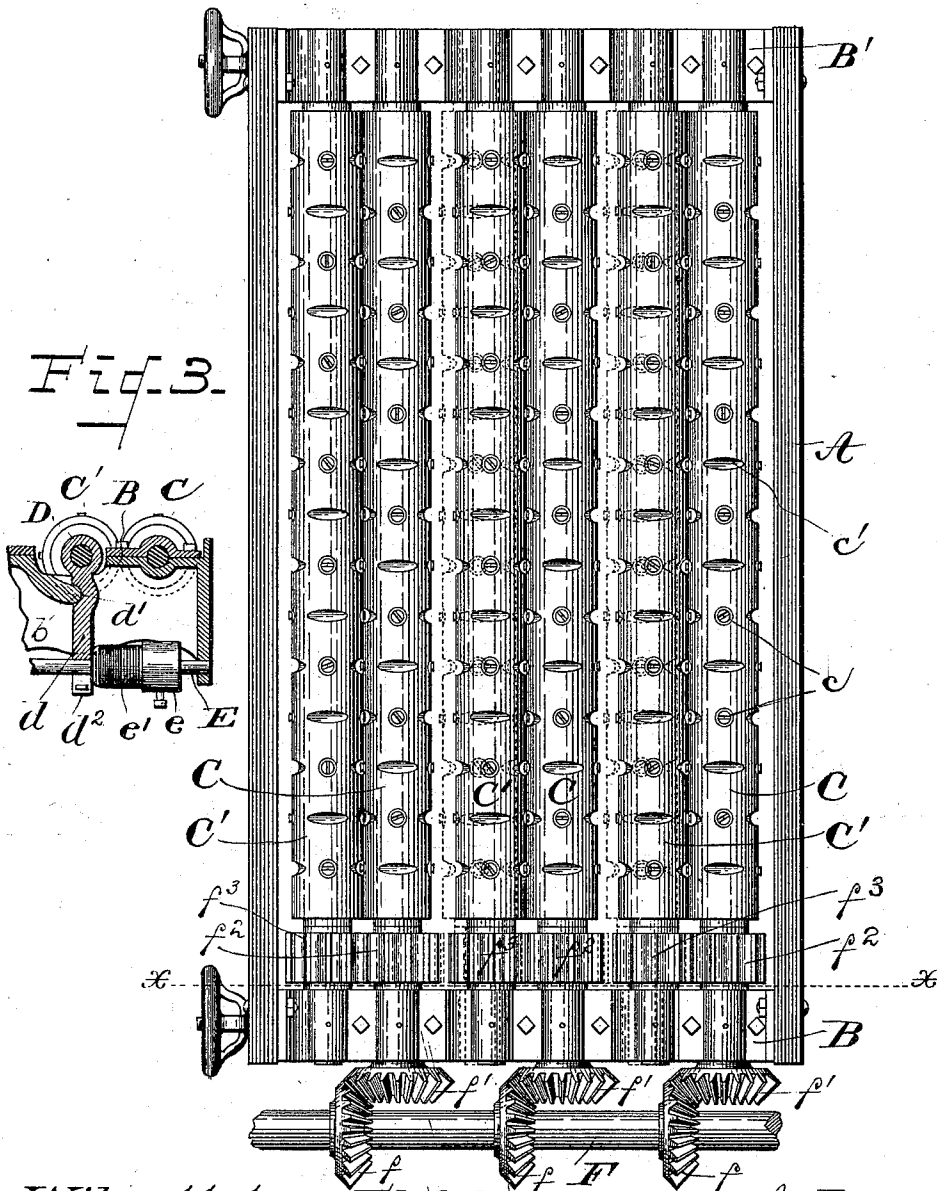
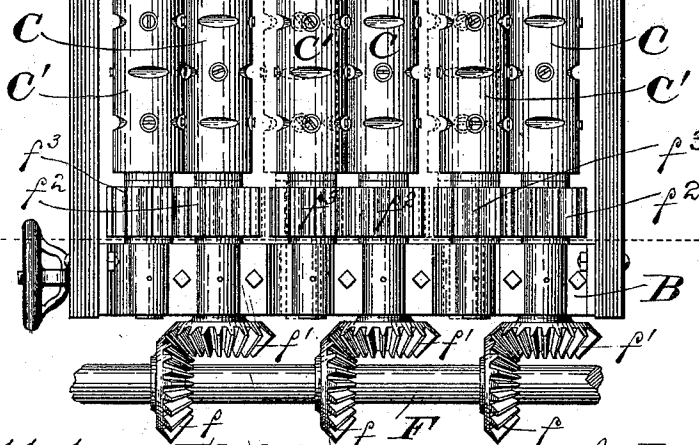
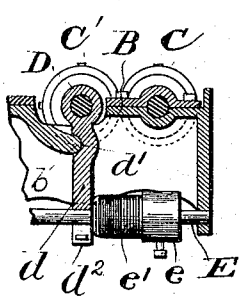
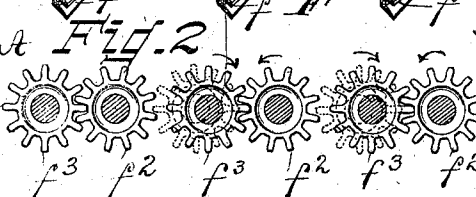


Fig. 3.



Witnesses:
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UNITED STATES PATENT OFFICE.

LESTER D. SWART, OF AUBURN, NEW YORK, ASSIGNOR TO THE A. W. STEVENS & SON, OF SAME PLACE.

CORN-HUSKING MACHINE.

SPECIFICATION forming part of Letters Patent No. 559,548, dated May 5, 1896.

Application filed November 8, 1895. Serial No. 568,272. (No model.)

To all whom it may concern:

Be it known that I, LESTER D. SWART, a citizen of the United States, residing at Auburn, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Corn-Husking Machines; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention consists in the novel features hereinafter described with reference to the accompanying drawings, which illustrate one form in which I have contemplated embodying my invention, and said invention is fully disclosed in the following description and claims.

Referring to the said drawings, Figure 1 represents a top plan view of a portion of a corn-husking machine, showing the husking-rolls. Fig. 2 represents an end view of the gearing for driving the same. Fig. 3 is a detail view illustrating a form of yielding bearing for the movable husking-rolls.

In the drawings I have shown such parts of a corn-husking machine as are necessary to illustrate my invention, and the remaining portions may be of any preferred style or form.

In the drawings, A represents the framework of the machine, and B B' represent the bridge-trees supported thereby, which in turn support the husking-rollers.

C C represent a series of stationary husking-rolls having their shafts mounted in stationary bearings on the bridge-trees.

C' C' represent movable husking-rolls, one being placed adjacent to each of said stationary rolls. These movable rolls have their shafts mounted in horizontally-movable bearings which are provided with cushioning devices, so that they may yield from the stationary rolls in case a hard substance passes between them.

In Fig. 3 I have shown one form of movable yielding bearing which can be advantageously employed in this connection, but the particular construction of such bearing forms no part of my invention and will not be claimed herein. In this figure, D represents the mov-

able bearing, provided with a downwardly-extending arm *d*, which is provided with a recess *d'*, engaging a rib *b* on the bridge-tree B and forming with said rib a pivotal connection. The lower end of the arm *d* is forked, as at *d''*, and straddles a horizontal longitudinally-movable adjusting-rod E, which is provided adjacent to each depending arm *d* with an adjustable collar *e* and an elastic cushion *e'* interposed between each of said arms and its respective collar. In this instance the cushion is a collar of rubber. By this means each of the movable husking-rolls is permitted to yield laterally away from the stationary roll, and as the stationary rolls and movable rolls are arranged alternately in the machine, as shown, the movable rolls when forced to move laterally will of course move toward the stationary roll of the next adjacent pair. Rotary motion is imparted to the stationary rolls from a driving-shaft F, preferably by means of bevel-pinions *f*, engaging similar pinions *f'* on the shafts of the stationary rolls.

The movable rolls are driven each from its respective stationary roll by means of gears *c'* on the shafts of the stationary rolls, which mesh with similar gears *c''* on the shafts of the movable rolls. These husking-rolls are constructed in the usual or any preferred manner, and each roll is provided with a series of projecting husking-pins *c* and a series of recesses *c'*, adapted to accommodate the pins of its next adjacent roll. It is obvious that in operation each pair of rolls must be maintained in the same relative positions with respect to each other, so that the pins of each roll will always enter the recesses of the adjacent roll and will not engage a plain portion of its surface, which would damage the rolls and interfere with their operation.

The teeth of the pinions *c'* and *c''* are made slightly longer than usual, and the relation between the shafts of the rolls is such that when one of the movable rolls is forced to move away from its stationary roll its pinion *c''* will engage with the pinion *c'* of the stationary roll of the next pair before leaving the teeth of its own driving-pinion *c'*, and as both driving-pinions tend to move the pinion on the shaft of the movable roll in the same direction, as will be readily understood by refer-

ence to Fig. 3, the operation of the movable roll will not be affected, nor will its position with respect to its stationary roll be changed even if its pinion is thrown out of engagement entirely with the driving-pinion on its stationary roll. As soon as the obstruction has passed between the rolls the pinion on the movable roll will be forced back into engagement with its driving-pinion in the proper relative position. This construction allows of a considerable yielding movement of the movable rolls without stopping their rotation or affecting their positions with relation to the stationary rolls. Any other form of yielding bearing may be employed in connection with the movable rolls without departing from my invention.

Where the end roll of the series of husking-rolls is a movable roll, it will be prevented from moving too far away from its stationary roll by its pinion striking the side of the frame of the machine or by any other suitable limiting device.

What I claim, and desire to secure by Letters Patent, is—

1. In a corn-husking machine the combination with a series of stationary husking-rolls,

of a series of movable rolls, alternating with the series of stationary rolls each being adapted to yield laterally away from its adjacent stationary roll, a driving-gear on each of said stationary rolls, a gear on each of said movable rolls, adapted to engage the driving-gear of the stationary rolls on either side of the same, substantially as described.

2. In a corn-husking machine the combination with a series of stationary husking-rolls, of a series of movable rolls, mounted in yielding bearings adapted to yield laterally away from their respective stationary rolls, driving-gears on the stationary rolls, gears on the movable rolls engaging each the pinion on its respective stationary roll and means for driving all of said stationary rolls in the same direction the distance between the gears of the adjacent stationary rolls being less than the diameter of the gears on the intermediate movable rolls, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

LESTER D. SWART.

Witnesses:

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