

No. 765,233.

PATENTED JULY 19, 1904.

H. L. FERRIS.
HUSKING ROLLS.

APPLICATION FILED MAR. 18, 1904.

NO MODEL.

Fig. 1.

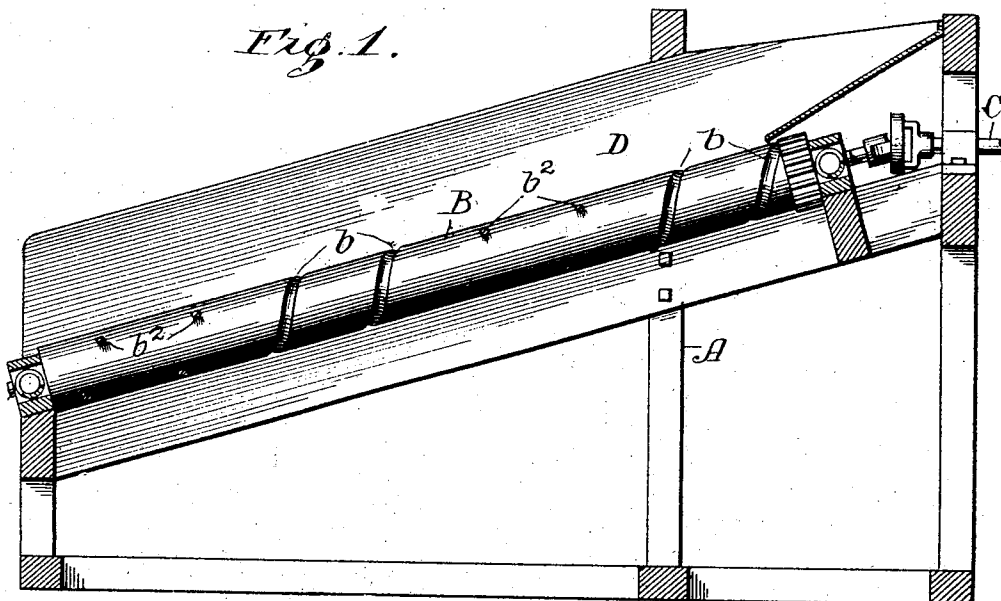


Fig. 2.

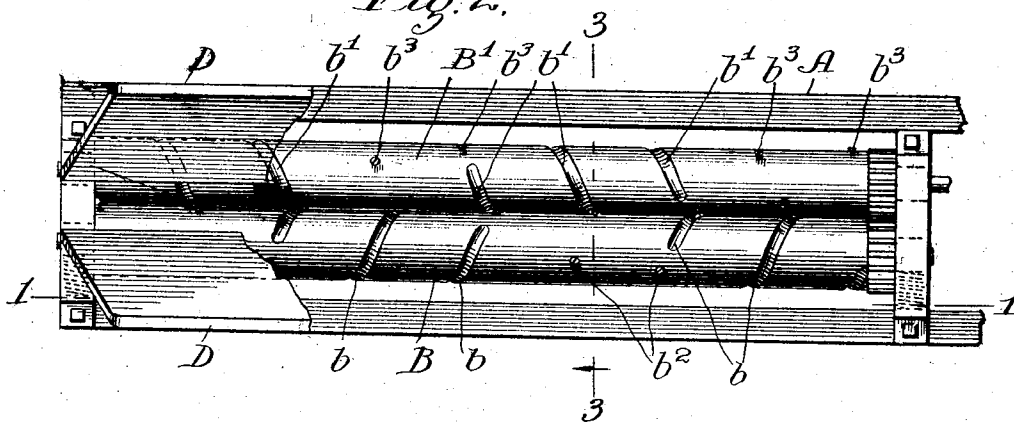
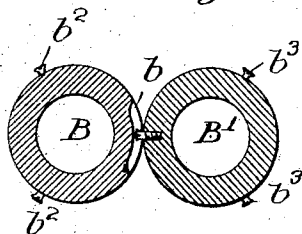


Fig. 3.



Witnesses:
Chas O. Shorway
Russell Wile.

Inventor:
Henry L. Ferris
by H. B. Turner
Atty.

UNITED STATES PATENT OFFICE.

HENRY L. FERRIS, OF HARVARD, ILLINOIS, ASSIGNOR TO HUNT, HELM, FERRIS & COMPANY, OF HARVARD, ILLINOIS, A CORPORATION OF ILLINOIS.

HUSKING-ROLL.

SPECIFICATION forming part of Letters Patent No. 765,233, dated July 19, 1904.

Application filed March 18, 1904. Serial No. 198,854. (No model.)

To all whom it may concern:

Be it known that I, HENRY L. FERRIS, a citizen of the United States of America, residing at Harvard, in the county of McHenry and State of Illinois, have invented certain new and useful Improvements in Husking-Rolls, of which the following is a specification.

My invention relates to certain new and useful improvements in husking-rolls; and its object is to produce a device of this class which shall have certain advantages which will appear more fully and at large in the course of this specification.

To this end my invention consists in certain novel features of construction which are shown in the accompanying drawings as embodied in my preferred form of construction.

In the aforesaid drawings, Figure 1 is a vertical section through my improved husking-rolls, the section being in the line 1 1 of Fig. 2. Fig. 2 is a plan view of the same, the greater part of the side boards of the trough being broken away to show the rolls; and Fig. 3 is a cross-section in the line 3 3 of Fig. 2 looking in the direction of the arrow.

The exact construction of the preferred form of my invention will be described in full in this specification; but I do not intend by describing the details of this construction to limit myself in any way thereto, the scope of my invention being fully pointed out in the claims following the specification.

Referring to the drawings, A is the frame of my improved device, having journaled in it two rolls B B'. These rolls occupy an inclined position and are geared together at their upper ends to rotate at the same speed. Rotary motion is imparted to one of these rolls by a shaft C, connected to the same by a gimbal-joint. Suitable boards D are supported by the frame A and form a trough, of which the rolls are the bottom. In this trough unhusked corn is placed, the same resting upon the rolls, which are rotated so that their top surfaces move toward each other, and the corn gradually passes down the rolls to the bottom, the husks being pulled off the ears by the rolls and passed through the rolls in the ordinary way.

So much of my improved construction as has so far been described is old and well known.

My invention consists in the peculiar configuration of the surface of the rolls, which is shown thereon. Each roll has upon it a spiral which extends from the top of the roll to the bottom, the direction of this spiral being opposite to the direction in which this roll in question is rotated. For instance, the roll B when viewed from the upper end rotates to the right, and the spiral when considered from the same end is a left-hand spiral, and, similarly, the roll B' rotates to the left and has a right-hand spiral. The spiral on each roll is composed of alternate sections of grooves and pins, (commonly called "pickers," the grooves on the roll B being indicated by *b* and the grooves on the roll B' being indicated by *b'*, the pickers on the roll B being indicated by *b*² and the pickers on the roll B' being indicated by *b'*². The pickers upon one roll are arranged to register with the grooves on the other roll, and vice versa, and in this preferred construction the end of the groove on one roll terminates a short distance below the beginning of the next lower section of groove on the other roll and for this short distance registers therewith. For instance, as illustrated in Fig. 2, the lower end of the upper groove *b* extends below the upper end of the next groove *b'* on the other roll, and it will be seen that as the two rolls are rotated in the direction in which they move when in operation these grooves will come into registration and register for a short time.

In the operation of my device the corn, which is fed to the rolls at the upper end, is crowded toward the center of the trough by the pickers and the grooves and the husks removed therefrom, said husks passing down between the rolls and the corn moving down the trough to be discharged at the lower end. It should be noticed that during this operation the corn is fed down by the spiral pickers and grooves and the ear is attacked alternately upon opposite sides by the pickers, because in each pair of registering spirals the

grooves and the pickers alternate upon opposite sides. This avoids any danger of the picker continuously eating into the ear of corn from the same side until the entire husk is penetrated and damage is done to the kernels, as must sometimes happen if a continuous spiral groove upon one roller is opposed to a continuous spiral of pickers on the other. This advantage is especially noticeable in case a nubbin gets into vertical position with the long stem extending downward between the rolls, as frequently happens. As soon as one of the grooves reaches this nubbin the latter becomes practically fixed in the groove and is fed downward therein, the movement in this respect being more certain than in the case of ears lying parallel with the rolls, because the latter, while in a general way following the movement of the spiral down the trough, may be more or less retarded by contact with the other ears. The nubbin, however, when once in a groove must travel along with the pickers attacking it upon one side, and in my improved construction it will be seen that presently the nubbin is attacked upon the opposite side, the groove changing from one roll to another, and this alternate action of the pickers upon the opposite sides of the nubbin continuing until the abnormally long stem of the latter is completely removed and the good portion of the nubbin forced over into the trough or drawn through the rolls out of the way. If any particular groove were continuous from the top to the bottom of one roll and registered with the pickers on the other roll, a nubbin which happened to get into this groove would be carried down with the pickers, tearing away one side only, the result of which would be that the good portion or the

kernels of the nubbin would be attacked before the husks upon the opposite side could be reached.

I realize that considerable variation is possible in the details of this construction without departing from the spirit of the invention, and I therefore do not intend to limit myself to the specific form herein shown and described.

I claim as new and desire to secure by Letters Patent—

1. In a device of the class described, the combination with a frame, of a pair of husking-rolls journaled in an inclined position in the frame, a spiral on each roll running in a direction opposite that in which the roll rotates, each spiral consisting of alternate sections of grooves and pickers, the grooves on one roll registering with the pickers on the other.

2. In a device of the class described, the combination with a frame, of a pair of husking-rolls journaled in an inclined position in the frame, a spiral on each roll running in a direction opposite that in which the roll rotates, each spiral consisting of alternate sections of grooves and pickers, the grooves on one roll registering with the pickers on the other, and the lower end of each groove terminating slightly below the upper end of the next lower groove on the other roll.

In witness whereof I have signed the above application for Letters Patent, at Harvard, in the county of McHenry and State of Illinois, this 4th day of March, A. D. 1904.

HENRY L. FERRIS.

Witnesses:

J. C. BLAKE,
L. EUGENE NORTON.