J. WEBBER, Jr.

Corn-Husking Machines.

No. 211,447. Patented Jan. 14, 1879.

Fig. 1.

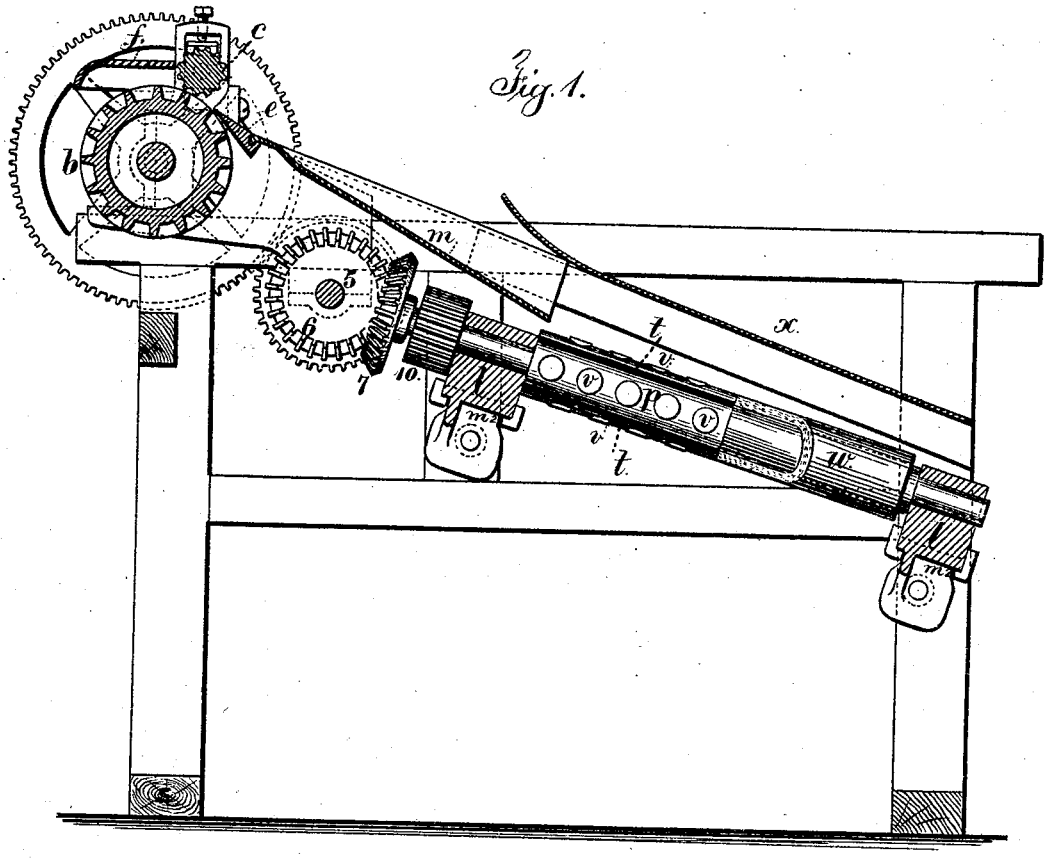



Fig. 2.

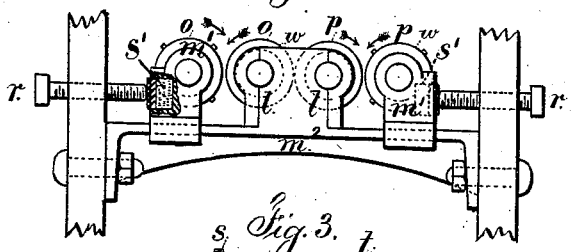
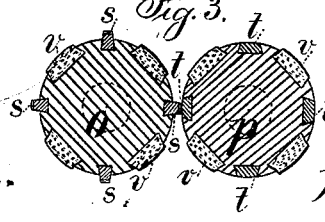



Fig. 3.




Witnesses

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# UNITED STATES PATENT OFFICE.

JOSIAH WEBBER, JR., OF BROOKLYN, ASSIGNOR TO THE CHAMPION CORN-HUSKER COMPANY, OF NEW YORK, N. Y.

## IMPROVEMENT IN CORN-HUSKING MACHINES.

Specification forming part of Letters Patent No. **211,447**, dated January 14, 1879; application filed October 10, 1878.

*To all whom it may concern:*

Be it known that I, JOSIAH WEBBER, Jr., of Brooklyn, in the State of New York, have invented an Improvement in Corn-Husking Machines, of which the following is a specification:

Letters Patent No. 68,085, granted August 27, 1867, represent inclined husking-rollers geared together, and acting in pairs to strip the husks from the ears.

In my present invention I make use of two pairs of rollers, geared together similar to those in said patent, my present improvement relating to the peculiar construction of the husking-rollers themselves and the manner of sustaining them, so as to prevent injury from any hard substance being caught in the machine, or from the ends of the leaves being caught or wrapped around the rollers.

In the drawing, Figure 1 is a vertical longitudinal section of the machine. Fig. 2 is an end view of the husking-rollers and bearings, and Fig. 3 is a section of one pair of rollers.

In Letters Patent No. 121,384, granted November 28, 1871, a picking-cylinder, *b*, roller *c*, cross bar or plate *e*, and the plate *f* are shown, having a general similarity to the same parts of my present machine, and the operations are similar.

In the annexed drawing the proportions and shapes of the parts correspond with those that I have found practically the most useful and advantageous to employ.

The ears of corn and inner husks, after the ends of the stalks and outer husks have been picked off by the aforesaid mechanism, run down upon the incline *m* and pass upon the inclined husking-rollers, that are in pairs, *o o p p*. These rollers are geared together by the gear-wheels 10, and receive a rapid rotary motion from the shaft 5, through the bevel-gears 6 and 7, corresponding generally with those in said Patent No. 68,085.

The peculiarities in my present invention relate to the construction of these rollers *o o p p*. I have found practically that where rubber or metal husking-rollers are employed the loose ends of the husks and the beard of the ear are often caught and pulled in between the rollers, and the end of the ear is drawn violently against the rollers, so that the heat from friction damages the rubber, or else the machine is clogged and obstructed. In other instances the smoothness and hardness of the husks prevent the rollers catching such husks, and the ear escapes imperfectly husked.

I make use of longitudinal blades *s s* in grooves in the metal husking-rollers. These blades are preferably corrugated or roughened like a file upon the edges, and they are secured in the outer rollers *o p* of the pairs of rollers, and the inner rollers are provided with dovetailed recesses filled with yielding material, such as Babbitt metal, as at *t*, and these are in such a position that the edges of the cutters or blades will press upon the yielding material and not be injured by contact with the hard metal of the roller. These cutters perform the twofold duty of cutting off the loose projecting ends of the husk, that produce the difficulty aforesaid, so that the ear is free to fall and its side rest upon the rollers, and, furthermore, these blades scratch up the husks sufficiently to insure the said husks being caught either between the Babbitt metal and the edge of the knife or between the rubber blocks *v v*, that are inserted into cavities in the metal portions of the rollers, and project slightly at their ends. The lower portions of the metal husking-rollers are each made smaller to receive the tubular rubber sleeves *w*, that are of the same external diameter as the larger metal portions of the rollers. These serve to complete the removal of the husks as the ears slide down and are acted upon by such pair *o o* or *p p* of rollers which revolve in the directions indicated by the arrows.

The journals of the two middle rollers are in the stationary bearings *l l*, that are bolted to the cross-bars $m^2$, and the journals of the outer rollers are in the bearings $m^1$ $m^1$, that are free to slide upon the cross-bars $m^2$, but are acted upon by springs to press the outer rollers toward the inner rollers with the required power; but should any small hard substance pass into the machine the rollers will yield laterally and allow it to escape downwardly without injury to the husking-rollers.

I prefer to introduce blocks of rubber $s'$ into cavities in the sides of the bearings $m^1$ $m^1$,

and employ screws *r*, passing through the frame of the machine and terminating at or near the rubber springs *s'*, so that by moving the screws the pressure will be regulated.

The cover or bonnet *x*, above the rollers, serves to prevent the ears standing up endwise as they pass down the inclined husking-rollers.

I claim as my invention—

1. In a corn-husking machine, a pair of rollers, one of which is made with one or more projecting blades, and the other with corresponding groove or grooves containing Babbitt metal or other yielding material, substantially as set forth.

2. The pairs of metallic husking-rollers provided with projecting blocks of rubber and a blade in one roller and yielding material in the groove of the other, substantially as set forth.

3. In a corn-husking machine, the husking-rollers having exposed metallic surfaces containing blocks of rubber in cavities for a part of the length and a tubular rubber surface for the remainder of the length, substantially as specified.

Signed by me this 5th day of September, A. D. 1878.

JOSIAH WEBBER, JR.

Witnesses:

ALLAN LEE SMIDT,

LOUIS SMIDT.