

(No Model.)

2 Sheets—Sheet 1.

W. F. DANA.
GREEN CORN HUSKER.

No. 512,433.

Patented Jan. 9, 1894.

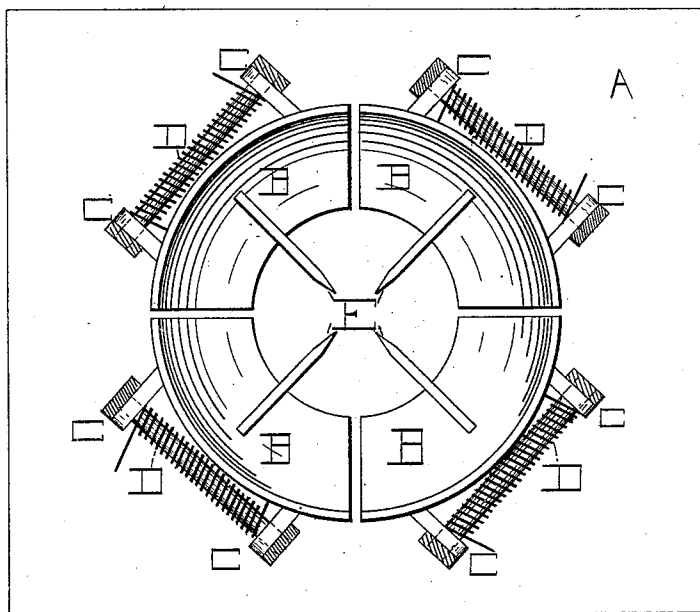


FIG. 1.

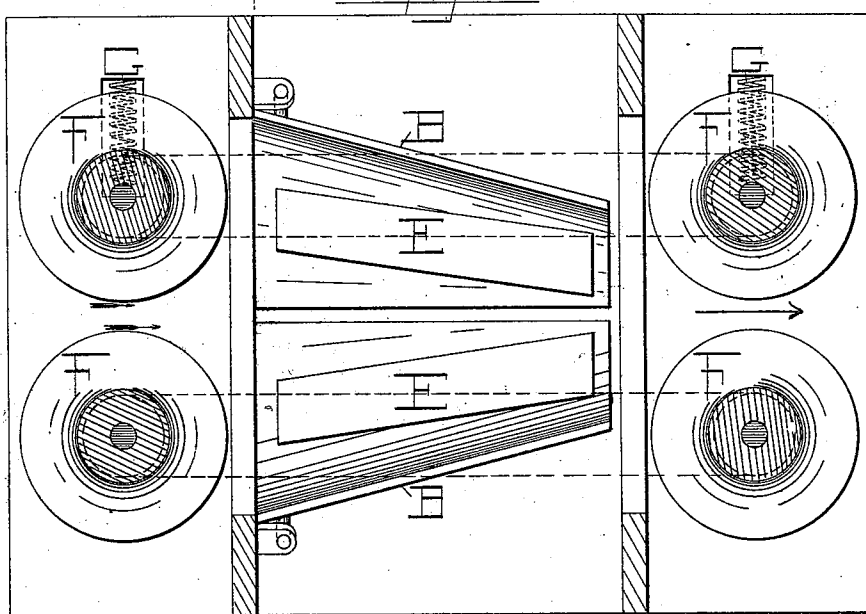


FIG. 2.

WITNESS:

Oscar A. Michel
C. R. Michel

INVENTOR

WILLIAM F. DANA.

BY

L. H. Scott.

ATTORNEY

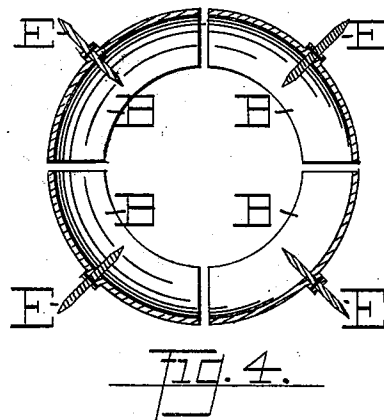
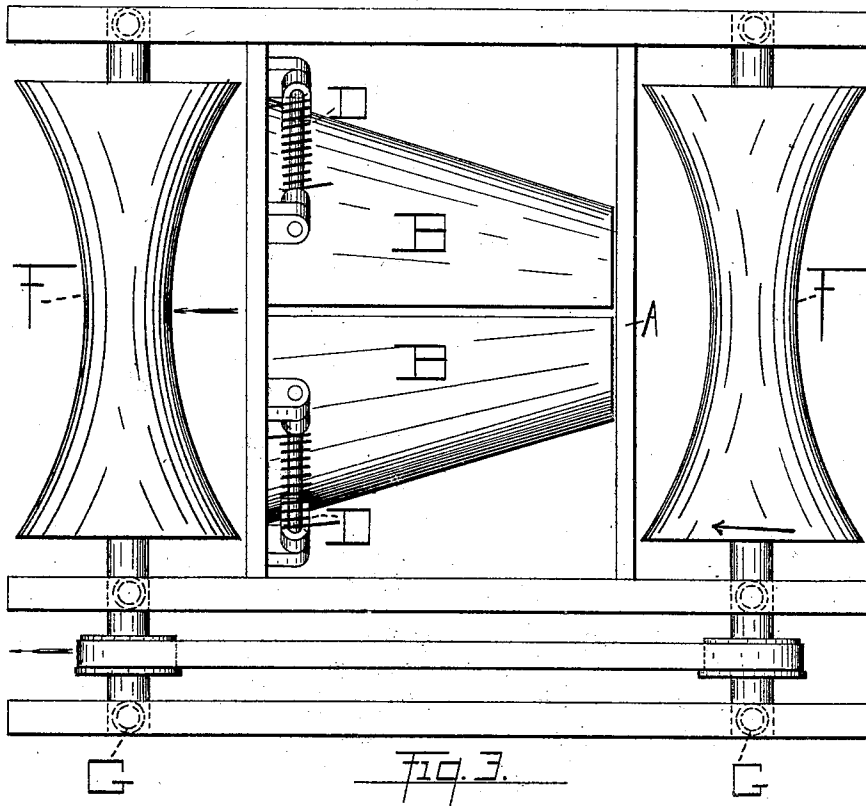
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UNITED STATES PATENT OFFICE.

WILLIAM F. DANA, OF BELPRE, OHIO.

GREEN-CORN HUSKER.

SPECIFICATION forming part of Letters Patent No. 512,433, dated January 9, 1894.

Application filed May 25, 1891. Serial No. 394,084. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM F. DANA, a citizen of the United States, residing at Belpre, in the county of Washington and State of Ohio, have discovered a certain new and useful Green-Corn Husker; and I do hereby declare the following to be such a full and clear description thereof as will enable others to make and use the same.

The object of my invention is to remove the husks from green corn rapidly, efficiently and at comparatively slight cost, and the said discovery and invention consists in the apparatus for accomplishing the desired result as will be more fully hereinafter described and finally pointed out in the claims. This apparatus is illustrated in the accompanying drawings, in which—

Figure 1, represents a front elevation thereof; Fig. 2, a longitudinal, vertical and central sectional view thereof; Fig. 3, a plan view thereof; and Fig. 4, a vertical sectional view of the knife holders, together with the modified form of knife, taken on a plane through the centers of the said knives.

Similar letters of reference indicate corresponding parts throughout the several views.

In the said drawings A indicates the supporting base plate, centrally apertured, with the opening therein of sufficient dimensions to permit the passage of the corn ears freely therethrough.

B, B, B, B, are the knife carriers, formed of longitudinal and uniform sections of the frustum of a hollow metallic cone. A plurality of the said sections B, B, B, B, are grouped about a common center, and independently pivoted at the larger ends thereof to fixed bearings C, C, C, C, on the base plate A. In the present instance four of these sections compose the group, but any number, more or less than that shown may be used. The said sections B, B, B, B, perform a twofold function, to wit: they assist in guiding and sustaining the ear during its transit through the said group and serve at the same time as supports or holders for the husk slitting cutters or knives. Each of the said knife carrying sections B, B, B, B, is provided with a spring D, the normal tendency of which is to maintain the said sections in their closed position which they occupy

when at rest and to resist the opening or expansion of the same when the machine is in active use. To each of these said sections or knife holders B, B, B, B, is interiorly secured an inwardly edged husk slitting blade E. These blades surround the axis of the group of knife holders B, B, B, B, and have a divergent relation with the said axis toward the feed end of the machine and of course a convergent relation therewith toward the opposite or discharge end of the machine. The said blades may be adjustable in their depth with reference to their holders B, B, B, B, in order to regulate the extent of their cut through the corn husk. I do not contemplate such an accurate adjustment of the knives as to cut exactly through the husk without slight incision of the grains. Such limited incision usually takes place, but it does not impair the value of the corn.

As a modification of the plain straight blade, more fully shown in Fig. 2, a rotary cutter of disk or lenticular form may be used. This form is shown by the cutters H, in Fig. 4. The general construction and arrangement of the husk slitting device as shown permits the knives to accommodate themselves to the various sizes of corn ears by means of their radially yielding movement, as will be understood.

The feed mechanism whereby the unhusked ears are presented to the action of the husk slitting knives consists of peripherally concaved rollers F, F, F, F, arranged in pairs, one pair of each being placed at each end of the group of knife holding sections B, B, B, B, and lying in a plane transverse to the axial center of the said group. Each member of each pair of rollers revolves in an opposite direction to its adjacent member as indicated by the arrows. The top or uppermost roller of each pair is provided with a coiled compression spring G, or any spring of equivalent form, the normal tendency of which is to press the rollers together. The rollers situated at the large or feed end of the husk cutters primarily receive the ears between their faces. The ears thus separately and consecutively interposed, by means of their frictional relation with the rollers are impelled forward and partially through the husk cutters the

transit therethrough of the same being continued by the second pair of rollers whereby they are carried entirely through the cutters and finally ejected.

- 5 The mechanism thus described may be attached to a suitable table or stand and the feed rollers may be set in motion by any suitable system of belts or gears well understood in mechanics, none of which however are
10 claimed independently in the present application.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

- 15 1. A green corn husking machine comprising the base plate A, knife carriages B hinged to fixed bearings C, knives E secured to the concave side of the carriages B, springs D actuating the said carriages and knives, periph-
20 erally concaved feed rollers F and springs G whereby each pair of rollers respectively has

a yielding grip substantially as described, and for the purpose set forth.

2. In a green corn husking machine a plurality of spring actuated knife carriages regularly hinged about a common center on an
25 apertured plate, and a revoluble knife of disk or lenticular form journaled in each of the said carriages substantially as described and for the purpose set forth.

3. In a green corn husking machine a plurality of spring actuated knife carriages regularly hinged about a common center on an
30 apertured plate, each individual carriage being formed of a longitudinal section of the frustum of a shell cone substantially as described and for the purpose set forth.

WILLIAM F. DANA.

Witnesses:

E. S. BYINGTON,
CHARLES S. DANA.