

(No Model.)

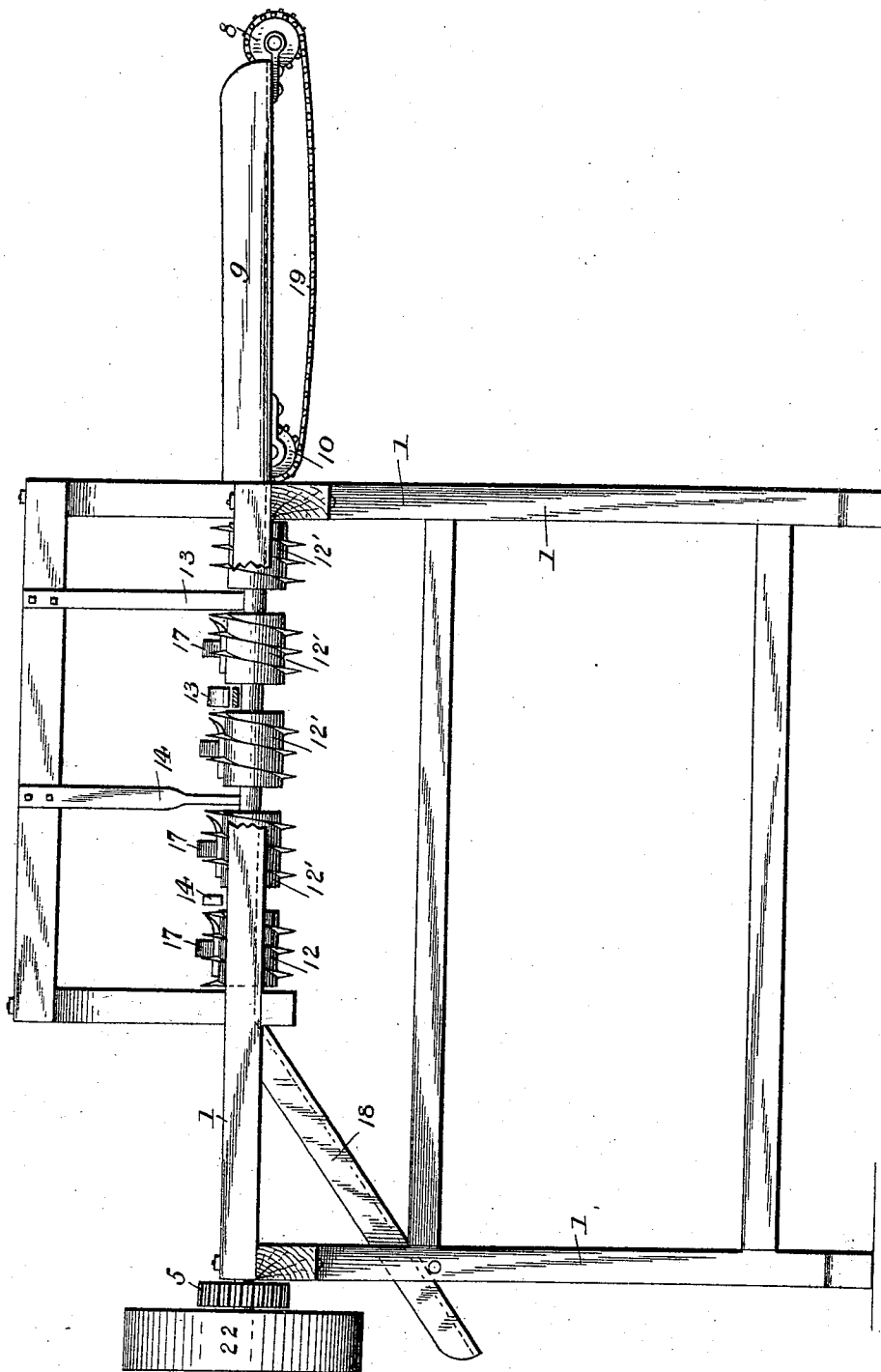
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S. E. MORRAL.
GREEN CORN CUTTER.

No. 516,399.

Patented Mar. 13, 1894.

Fig. 1.



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(No Model.)

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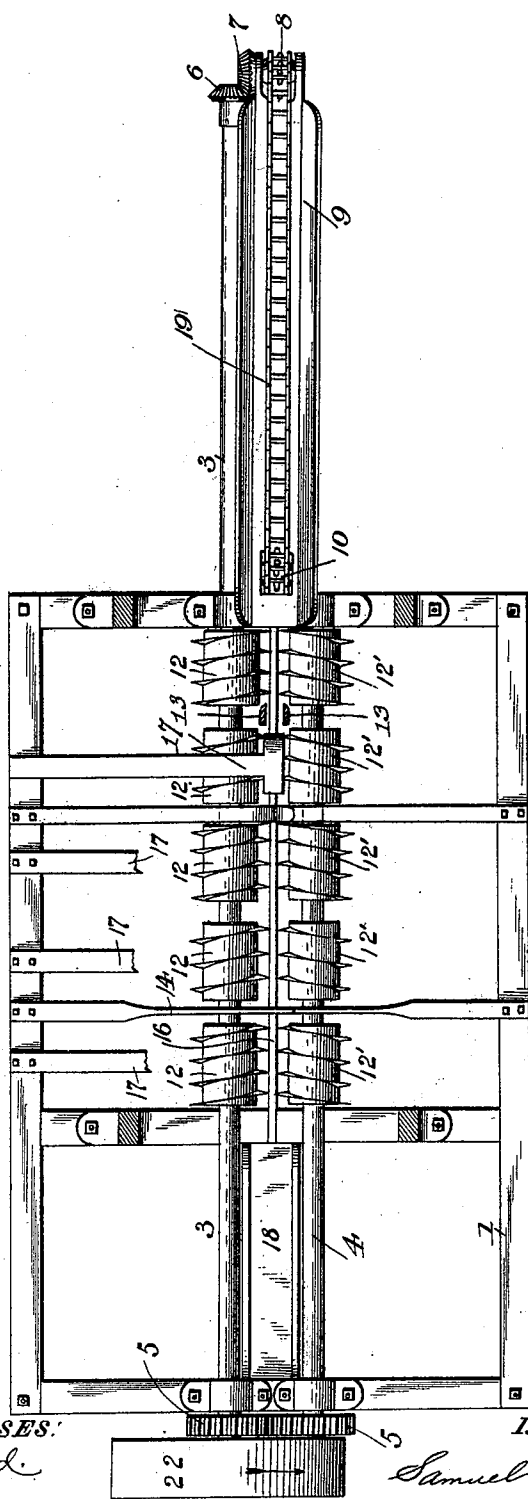


Fig. 2.

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Fig. 3.

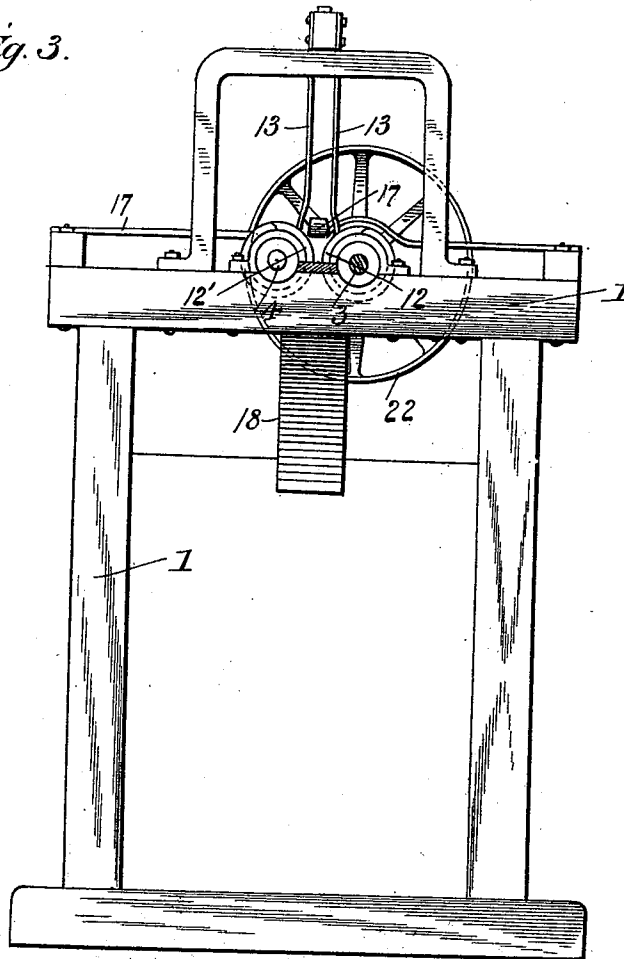
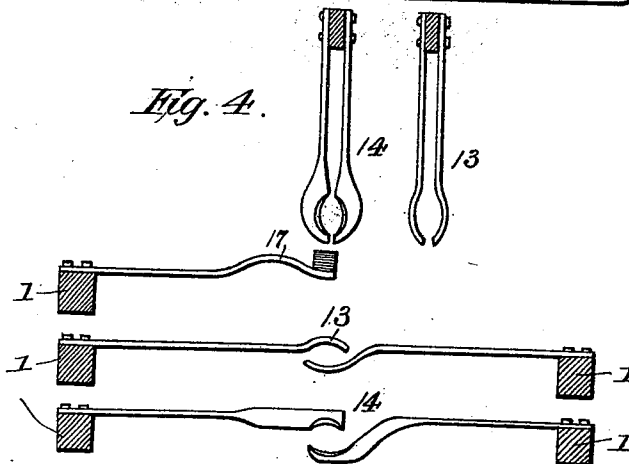


Fig. 4.



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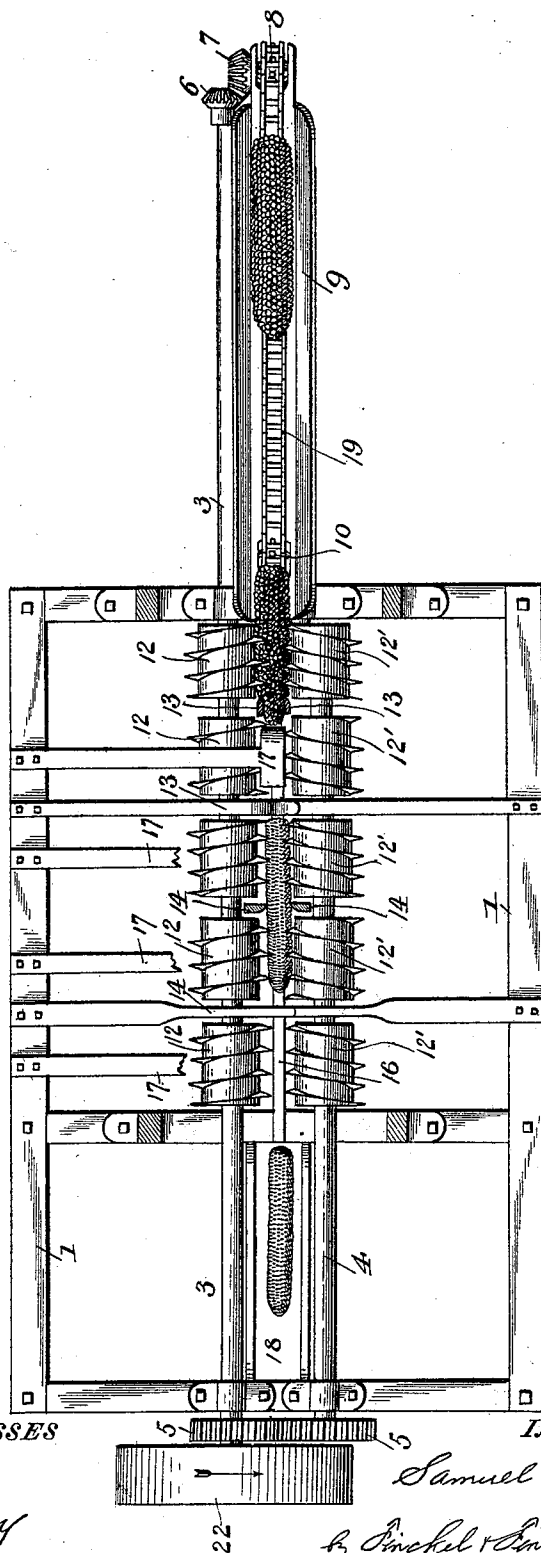
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Fig. 5.



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UNITED STATES PATENT OFFICE.

SAMUEL E. MORRAL, OF MORRAL, OHIO.

GREEN-CORN CUTTER.

SPECIFICATION forming part of Letters Patent No. 516,399, dated March 13, 1894.

Application filed October 13, 1893. Serial No. 488,060. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL E. MORRAL, a citizen of the United States, residing at Morral, in the county of Marion and State of Ohio, have invented certain new and useful Improvements in Green-Corn Cutters; 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. The object of my invention is to provide an improved machine for cutting green corn from the cob.

The features of novelty are described in the following specification and claims.

In the accompanying drawings: Figure 1, is a side elevation, a part of the frame being broken out to illustrate the working parts. Fig. 2, is a top plan view. Fig. 3, is a view of the front end of the machine—the feeding attachment being omitted. Fig. 4, illustrates the cutters and scrapers; and Fig. 5, a view of the machine at work.

In the drawings, 1 designates the frame in the upper part of which are journaled two shafts 3 and 4 extending parallel to one another. The rear ends of these shafts are provided with meshing gears 5, 5, and the shaft 3 has a band wheel 22 by which rotary motion in opposite directions is imparted to the shafts. At its front end the shaft 3 extends considerably beyond the frame, and it is there provided with a miter gear 6 which engages a similar gear 7 on the shaft of sprocket wheel 8 that is supported in the front end of a trough 9 on the front part of the machine. An endless chain 19 extends from the sprocket wheel 8 through the trough 9 around another sprocket wheel 10 near the frame, and when the proper rotary motion is imparted to the shaft 3 the chain will feed the ears of corn placed thereon into the machine.

12 and 12' designate right and left hand spirally flanged feed rollers or screws which are fixed on the shafts. These feed rollers are preferably arranged in pairs—of which five are shown—with spaces between their ends sufficient to receive the cutters and scrapers.

13 and 14 represent the cutters and scrapers respectively, the scrapers being arranged in

rear of the cutters. There are two sets of the cutters and scrapers so as to cut the corn from the four sides of the cob and the blades or the operative ends of these cutters and scrapers are arranged between the ends of the rollers, the shanks of one set being attached to a horizontal bar arranged vertically above the longitudinal space between the rollers, while the shanks of the other set are secured to the side-bars of the frame.

Secured in the longitudinal space between the feed rollers is a bar 16 the upper side of which serves as a support for the ears of corn as they are forced along by the feed rollers.

17 designates flat springs the under side of the T ends of which are slightly inclined downwardly and rearwardly and are arranged above the bar 16 so as to guide the ears through the cutters and scrapers. The shanks of the T springs are secured to the sides of the main frame 1.

In the rear part of the frame, below the point where feed rolls discharge the cobs, is arranged an inclined spout 18 through which the cobs pass into a suitable receptacle.

The operation which is clearly indicated in Fig. 5, is as follows:—The ears, deprived of their husks, and silk, are placed on the chain 19 and by it carried to the feed rolls or screws. The threads of the feed rolls or screws penetrate the ears forcing them rearwardly to and through the cutters which remove the greater part of the corn, and thence to the scrapers which complete the work.

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

1. In a machine for cutting corn from the cob, the combination of two parallel shafts 3 4 each having a series of spirally flanged feed rolls or screws, the rolls or screws of each series being separated longitudinally upon its shaft, and cutters between the members of the series, substantially as shown and described.

2. In a machine for cutting corn from the cob, the combination of spirally flanged feed rolls or screws, a bar 16, and spring guide 17 for supporting and guiding the ears between the feed rolls.

3. In a machine for cutting corn from the

cob, the combination of spirally flanged feed rolls or screws on parallel shafts, and mechanism operated by one of said shafts for introducing ears into said feed rolls, substantially as shown.

4. In a machine for cutting corn from the cob, the combination of a series of spirally flanged feed rolls or screws mounted on parallel shafts, cutters and scrapers arranged between said feed rolls, a bar or support 16, and the spring guide 17, substantially as described.

5. In a machine for cutting corn from the cob, the combination of spirally flanged feed rolls or screws on parallel shafts, a pinion 7 on one of said shafts, and means for introducing ears into said feed rolls comprising trough 9, sprocket wheels 8 and 10 journaled at the ends of the trough, endless chain 19 passing around the sprocket wheels and through

the bottom of the trough, and a pinion on the axle of one of the sprocket wheels meshing with pinion 7, substantially as shown and described.

6. In a machine for cutting corn from the cob, the combination of spirally flanged feed rolls or screws on parallel shafts, the shafts being arranged so that the rolls or screws of both shafts will engage the same ear of corn, and a bar or rest 16 longitudinally between the feed rolls, substantially as shown and described.

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

SAMUEL E. MORRAL.

Witnesses:

SAMUEL C. BAKER,
CONRAD HARTMAN.