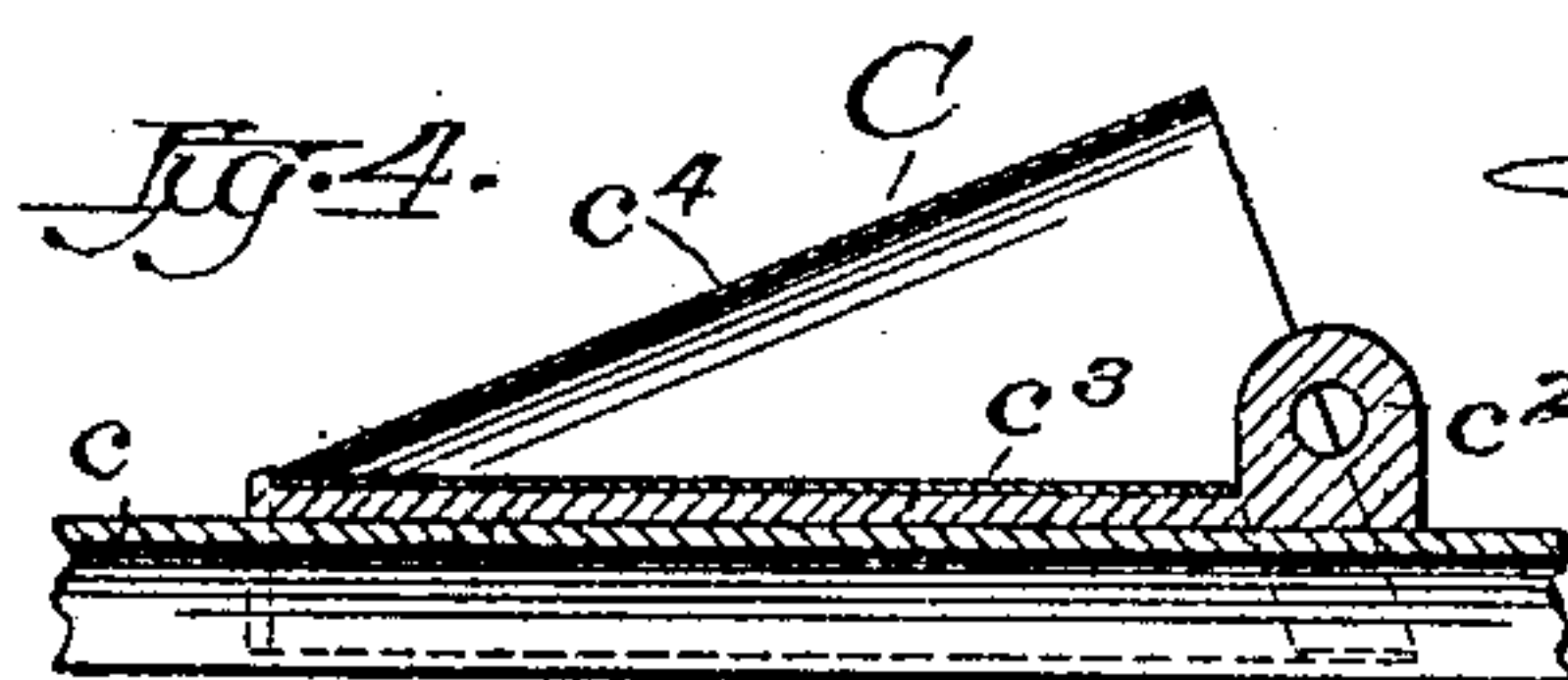
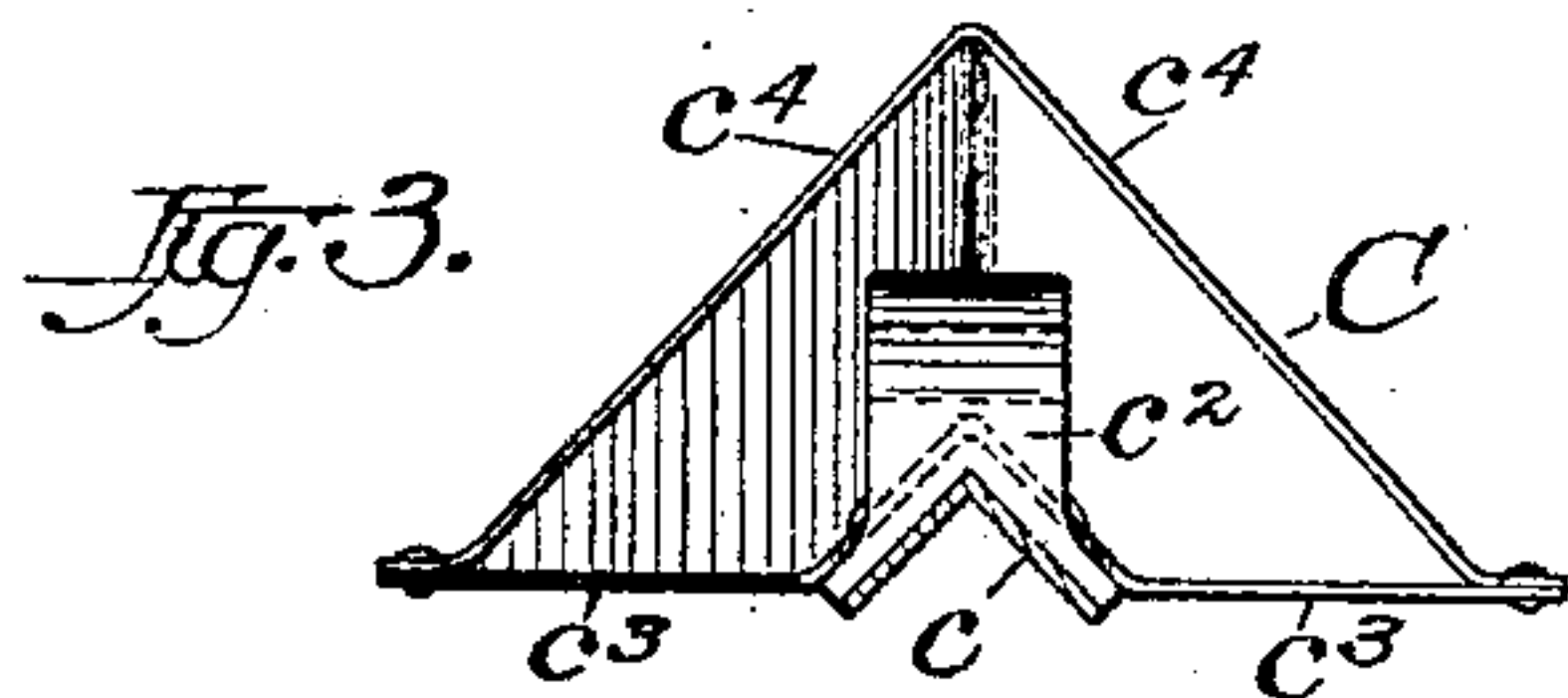
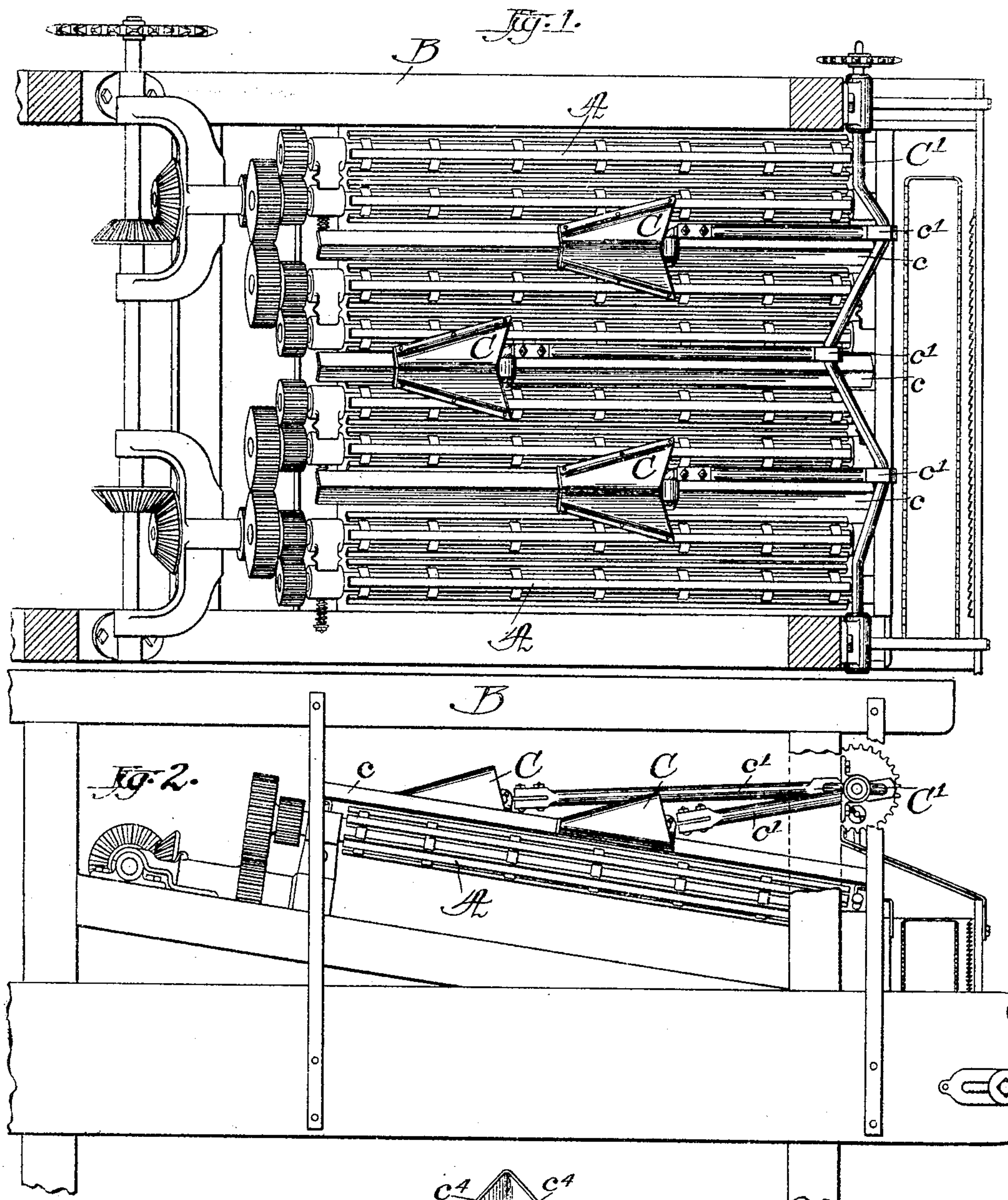


No. 803,994.

PATENTED NOV. 7, 1905.

C. E. CURTISS.
ALINING EAR FORWARDER FOR CORN HUSKERS.

APPLICATION FILED FEB. 1, 1905.



Witnesses:
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UNITED STATES PATENT OFFICE.

CHARLES E. CURTISS, OF CHICAGO, ILLINOIS, ASSIGNOR TO INTERNATIONAL HARVESTER COMPANY, A CORPORATION OF NEW JERSEY.

ALINING EAR-FORWARDER FOR CORN-HUSKERS.

No. 803,994.

Specification of Letters Patent.

Patented Nov. 7, 1905.

Application filed February 1, 1905. Serial No 243,656.

To all whom it may concern:

Be it known that I, CHARLES E. CURTISS, a citizen of the United States, and a resident of Chicago, in the county of Cook and State of Illinois, have invented a certain new and useful Improvement in Alining Ear-Forwarders for Corn-Huskings, of which the following is a specification sufficiently clear and exact to enable those skilled in the art to which it appertains to make and use the same.

The invention relates to corn-huskings, and more especially to the means for spreading and forwarding the ears over the husking-rolls and to the means for alining the ears with said rolls.

It has for its object to provide a device in which the forwarding and alining means are combined and to provide an arrangement of a plurality of such devices as will spread the ears evenly over the husking-rolls.

The invention is illustrated in the accompanying drawings, forming a part hereof, in which like characters of reference designate like parts.

Referring to the drawings, Figure 1 is a plan view of as much of a corn-husker as is necessary to illustrate the application of the invention. Fig. 2 is a side elevation of the parts shown in Fig. 1. Fig. 3 is an end elevation of the alining ear-forwarder. Fig. 4 is a longitudinal sectional elevation of the parts shown in Fig. 3.

The invention is shown applied to a corn-husker of the type shown in my Patent No. 727,300, issued May 5, 1903.

The husking-rolls A are suitably mounted in the frame B in front of and below the snapping-rolls, (not shown,) as is common practice; but instead of being located transversely, as shown in the patent referred to, they are located longitudinally of the frame. These rolls are intergeared in the usual manner and are connected with the main driving-shaft by any suitable means. The usual shield (not shown) is also provided to protect the driving-gearing and to conduct the ears from the snapping-rolls to the husking-rolls. All of the parts so far mentioned are substantially as shown in the patent referred to, and hence will not need to be further described here.

Alining ear-forwarders C are slidably mounted upon guides c, located intermediate

of the adjacent pairs of husking-rolls and parallel with the axes thereof. At the delivery end of these rolls is a crank-shaft C', which is suitably mounted in the frame B and connected with the driving-shaft by any desired means. As herein shown this crank-shaft is of the multiple form, having wrists for the ear-forwarders, which are connected thereto, respectively, by pitmen c' in the usual manner. Since there is a natural tendency for the greatest number of ears to be delivered to the husker at its central portion, the middle forwarder is preferably located nearer the receiving end of the husking-rolls than those on either side thereof. By such an arrangement the forwarders are made to operate in zones which diverge toward the delivery end of said rolls, whereby the ears in excess of the capacity of the rolls located centrally of the husker are deflected toward those located at the sides, thus spreading the ears uniformly over the rolls. A broken stalk is also prevented from lying across two or more forwarders which would impede the advance of the ears, and thus interfere with the proper operation of the machine.

The alining ear-forwarders are each substantially pyramidal in form and are so located that one or more faces extend diagonally toward the delivery end of the husking-rolls. Each is provided with a body portion c², which has a groove or way in its under side corresponding in cross-section to that of the guide c upon which it slides. Secured to the body portion and extending laterally from one or both sides is a wing c³, which is triangular in its general outline. Its forward end extends out over the adjacent husking-roll a distance substantially equal to one-half that between the centers of adjacent pairs of rolls and provides the means for forwarding the ears. The outer edge being thus inclined laterally relative to the axes of the rolls, means are provided for deflecting the ears which lie cross-wise of the rolls into alinement therewith, where they will be in proper position to be husked in the usual manner. Mounted upon each of these wings and secured thereto is a deflector c⁴, the surface of which inclines diagonally toward the delivery end of the husking-rolls. By this means the ears are prevented from riding upon the wings of the for-

warders and are deflected more readily to spread the ears out uniformly over the husking-rolls and to aline them therewith. These forwarders preferably are made duplex in
 5 form, having a wing and a deflector extending from each side, whereby one forwarder coöperates with two pairs of rolls. In this form the wings and deflectors preferably are made of one piece of metal, respectively, and
 10 secured together along their edges, although they may be made readily of one piece or separate pieces, as desired.

From the above it is thought that the operation of the invention will be understood
 15 readily without further description, but, briefly stated, it is as follows: The ears are conducted from the snapping-rolls to the receiving end of the husking-rolls in the usual manner. Such as are already in alinement
 20 with the rolls have their husks immediately engaged and torn off thereby. They are then advanced to the delivery end of the rolls by the reciprocating forwarders, which deflect the ears slightly in passing them. In case
 25 any ears lie crosswise of the rolls they are deflected into alinement therewith when they encounter the inclined edges of the wings or the inclined surfaces of the deflectors. The alining-forwarders operating in zones which
 30 diverge from the receiving end of the rolls to the delivery end thereof, the ears in excess of the capacity of the rolls centrally located are deflected laterally until they finally find egress from those nearer the sides of the
 35 husker. By these means the ears are spread out evenly over all the rolls, they are detained in the husker a sufficient time to insure their being properly husked, they are alined with the rolls, so that their husks may be torn
 40 readily therefrom, and they are rapidly advanced after being husked, whereby the operation of a machine of this class is greatly improved.

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

1. In a corn-husker, the combination of two or more pairs of husking-rolls, a guide intermediate said pairs and parallel therewith, an
 50 ear-forwarder mounted above said guide and adapted to slide longitudinally thereon, and operative means connected with said ear-forwarder.

2. In a corn-husker, the combination of two
 55 or more pairs of husking-rolls, a guide intermediate said pairs and parallel therewith, an ear-forwarder mounted above said guide and adapted to slide longitudinally thereon, said ear-forwarder having a deflector for alining
 60 the ears with said rolls, and operative means connected with said ear-forwarder.

3. In a corn-husker, the combination of two or more pairs of husking-rolls, a guide intermediate said pairs and parallel therewith, an

ear-forwarder mounted above said guide and
 65 adapted to slide longitudinally thereon, said ear-forwarder having laterally - extending wings for alining the ears, and operative means connected with said ear-forwarder.

4. In a corn-husker, the combination of one
 70 or more pairs of husking-rolls, a guide intermediate said pairs and parallel therewith, a deflector mounted to slide longitudinally thereon, said deflector having its operative surface inclined outward and rearward toward the de-
 75 livery end of said rolls, and operative means connected with said deflector.

5. In a corn-husker, the combination of a plurality of pairs of husking-rolls and a reciprocating member of substantially pyrami-
 80 dal form located intermediate of adjacent pairs, one or more faces of which member are inclined outward and rearward toward the delivery end of said rolls.

6. In a corn-husker, the combination of a
 85 plurality of pairs of husking-rolls and a plurality of reciprocating ear-forwarders located intermediate of adjacent pairs and having the central forwarder operative in advance of the others toward the receiving end of said rolls. 90

7. In a corn-husker, the combination of a plurality of pairs of husking-rolls and a plurality of reciprocating ear-forwarders located
 95 intermediate of adjacent pairs, said ear-forwarders having laterally-extending wings for alining the ears, and having the central forwarder operative in advance of the others toward the receiving end of said rolls.

8. In a corn-husker, the combination of a plurality of pairs of husking-rolls, a guide
 100 between each of the adjacent pairs and an alining ear-forwarder of substantially pyramidal form slidably mounted upon said guide with its widest portion extending over the adjacent
 105 rolls.

9. In a corn-husker, the combination of a plurality of pairs of husking-rolls and a plurality of reciprocating members of substantially pyramidal form located intermediate of
 110 adjacent pairs, and having the central member operative in advance of the others toward the receiving end of said rolls.

10. In a corn-husker, the combination of two or more pairs of husking-rolls, a guide intermediate said pairs and parallel therewith, an
 115 ear-forwarder mounted above said guide and adapted to slide thereon, a crank-shaft mounted in rear of said ear-forwarder and a pitman connection therebetween.

11. In a corn-husker, the combination of a
 120 plurality of pairs of husking-rolls, a plurality of guides intermediate said pairs of rolls, ear-forwarders slidably mounted on said guides, a multiple crank-shaft mounted in rear of said forwarders and pitmen connecting said for-
 125 warders with said multiple crank-shaft.

12. In a corn-husker, the combination of a plurality of pairs of husking-rolls, a plurality

of guides intermediate said pairs of rolls, ear-
forwarders slidably mounted on said guides, a
multiple crank-shaft mounted in rear of said
forwarders, pitmen connecting said forward-
5 ers with said multiple crank-shaft, the cen-
tral pitman having a greater length than the
others.

In testimony whereof I have signed my name
to this specification in the presence of two sub-
scribing witnesses.

CHARLES E. CURTISS.

Witnesses:

JOHN R. MAYESKIE,
ROBERT F. DAILY.