

(No Model.)

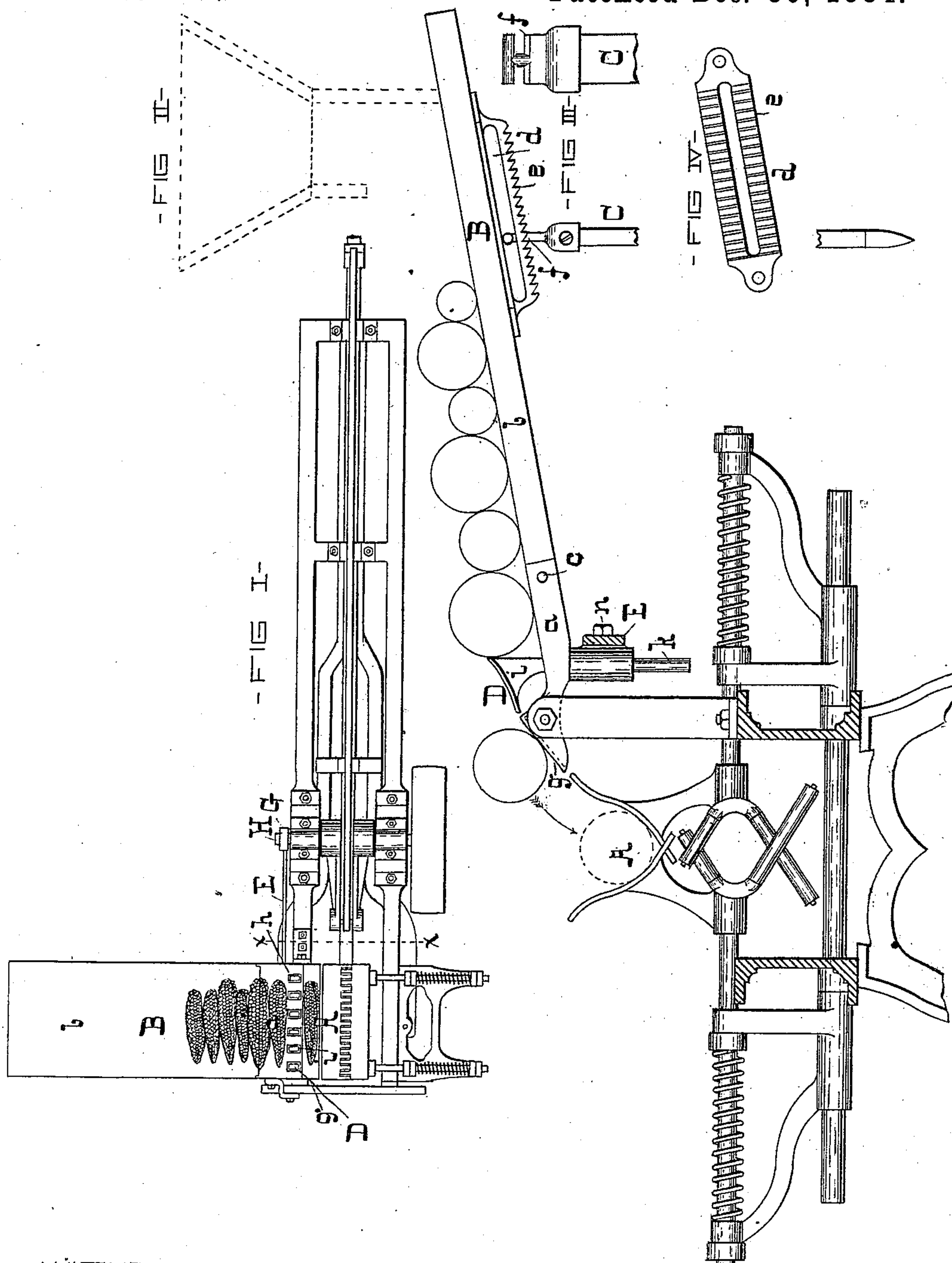
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S. D. WARFIELD.

INTERMITTENT FEED MECHANISM FOR GREEN CORN CUTTERS.

No. 310,000.

Patented Dec. 30, 1884.



-WITNESSES-

*Daniel Fisher*

*Chas. B. Cassady*

-INVENTOR-

*Sol. Davis Warfield,*  
*by G. H. H. Howard,*  
*Atty.*

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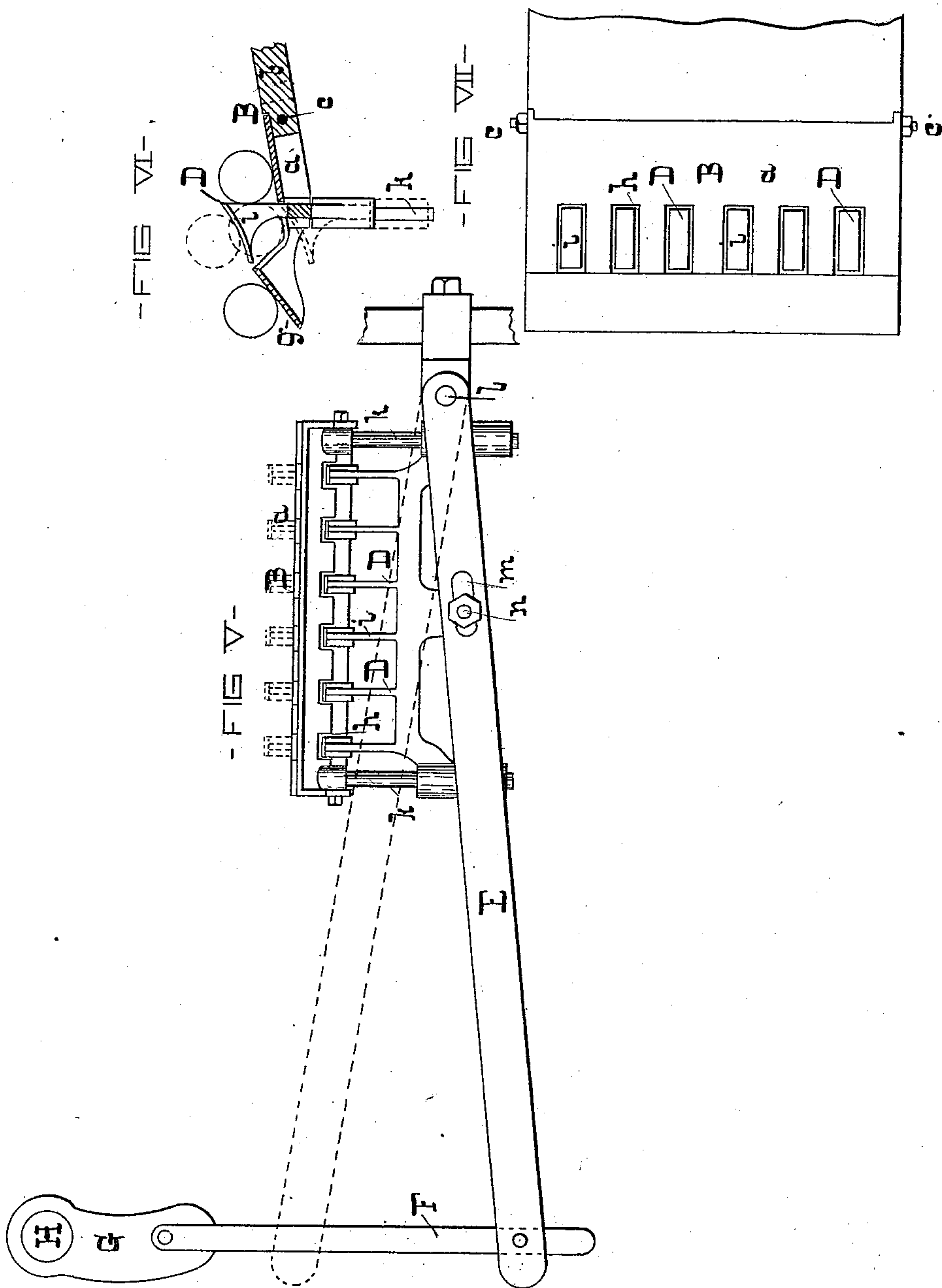
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S. D. WARFIELD.

# INTERMITTENT FEED MECHANISM FOR GREEN CORN CUTTERS.

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Paul Fisher

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-INVENTOR-

Col. David Macfield,  
by E. H. H. Howard,  
Atty -



# UNITED STATES PATENT OFFICE.

SOLOMON DAVIES WARFIELD, OF BALTIMORE, MARYLAND.

INTERMITTENT FEED MECHANISM FOR GREEN-CORN CUTTERS.

SPECIFICATION forming part of Letters Patent No. 310,000, dated December 30, 1884.

Application filed June 18, 1884. (No model.)

*To all whom it may concern:*

Be it known that I, SOLOMON DAVIES WARFIELD, of the city of Baltimore, and State of Maryland, have invented certain Improvements in Intermittent Feed Mechanism for Green-Corn Cutters, of which the following is a specification.

This invention relates to certain improvements in mechanism to be applied to the receiving end of a green-corn cutter to automatically feed the uncut ears separately, or one by one, thereto, as will hereinafter fully appear.

In the drawings forming a part hereof, Figure I is a plan view of certain parts of a green-corn cutter to which the present invention is applied. Fig. II is an enlarged sectional view of Fig. I taken on the dotted line *x x*. Figs. III and IV are views of details of the machine. Fig. V is a rear view of Fig. II with certain parts thereof removed. Fig. VI illustrates the movements of the ears during the feeding operation. Fig. VII is an enlarged plan of a part of the apparatus.

A is the receiving trough or hopper of a green-corn cutter, and it may be of any suitable construction, as I do not limit myself to the application of the feed mechanism hereinafter described to any particular corn-cutting machine.

B is an inclined table, supported near to the receiving-hopper A in any suitable manner. This table may be formed of one piece and held rigidly in its position; but it is preferably constructed, as here shown, in two parts or sections, *a* and *b*, the former being fixed, and the latter adjustable in inclination, and with this view it is pivoted to the section *a* at *c*. The outer end of the section *b* of the inclined table is sustained by means of an adjustable leg, C, the upper end of which has a T-head adapted to rest in a slotted plate, *d*, with ratchet-teeth *e* on its under surface. The end of the leg C immediately below or under the T-head is sharpened, and the tooth *f* thus formed is adapted to engage with the toothed plate *d* at any point within its length. By moving the leg C toward or from the pivoted end of the section *b* of the table B the angle of inclination of the table may be increased or diminished, to give any desired pressure of the ears to be fed to the feeding mechanism. The lower

end of the leg C is provided with a point to steady the same on the floor. I do not restrict myself to the means shown for increasing or diminishing the inclination of the table B, as it is obvious that any contrivance to effect this result would be its equivalent. The section *a* of the table B has an inclined perforate or imperforate stop-plate, *g*, the elevated end of which is somewhat above the upper face of the said table, and the space immediately in the rear of the plate *g* is slotted, the slots being denoted by *h*.

D is a lifter, which is here shown as in sections *i*, adapted to pass through the slots *h* in the table, and the upper ends of the sections *i* are inclined toward the plate *g*. An alternate construction of the plate *g* and the lifter D might consist of an inclined table with a single slot therein, and a lifter to practically occupy the entire slot. The lifter D has a vertical reciprocating movement, and is guided on bearing-rods *k*, which are fastened to the under side of the section *a* of the table B. The vertical reciprocating movement of the lifter D is effected by means of a lever, E, pivoted at *l* to a bracket fastened to the floor or to any fixed part of the machine. The lever E has a slot, *m*, and the lifter is provided with a pin or bolt, *n*, which passes through the slot *m*, as shown in Fig. II. The outer end of the lever E is connected by a rod, F, to a crank, G, on the driving-shaft H of the machine, or to any part of the machine which has a proper rotary or reciprocating movement. While the lifter D is preferably reciprocated through the agency of the lever E, as shown in the drawings, other mechanism may be employed for the purpose without departing from the spirit of the invention.

The action of the feed mechanism, when the machine is in operation, is as follows: A number of uncut ears, without reference to size, are placed on the inclined table B, with their butts in a common direction, as shown in the drawings. At each depression of the lifter the ears, in view of the inclination of the table, roll to the lower end thereof, and are stopped by the end ear coming in contact with the elevated end of the plate *g*, as shown in dotted lines in Fig. VI. In this figure the lifter is shown in its depressed position in dotted lines, and its



elevated position in full lines, and the various positions which an ear assumes in its transfer from the table to the machine are indicated by circles in dotted and full lines. It will be understood that at each movement of the lifter an ear is carried by it to a point sufficiently high to admit of the ear rolling down the inclined plate *g* to the machine. The width of the face of the lifter is less than the diameter of any two of the smallest ears. Consequently when two small ears come together the lower one only is fed to the machine, the upper or rear one being pushed and held back until the lifter has again passed to its lowest position, when the ear rolls to the stop, as before described. It will also be understood that the width of the face of the lifter being greater than one-half the diameter of the largest ear, all ears without reference to their diameter or size are fed separately, or one by one, to the machine.

In Fig. II a hopper is shown in dotted lines in which the ears may be primarily placed, and from which they are discharged to the table B.

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I claim as my invention—

In a green-corn cutter, the combination of cutting mechanism with feed mechanism for the ears, which consists of an inclined slotted table to receive the ears, having a stop at its lower end, a reciprocating lifter passing through the said slotted table, and means to connect the said lifter with some moving part of the corn-cutter proper, whereby the said lifter is retained constantly in operation to lift the ears one by one over the said stop to the cutting mechanism, substantially as specified.

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SOLOMON DAVIES WARFIELD.

Witnesses:

CHAS. B. CASSADY,  
DANL. FISHER.