

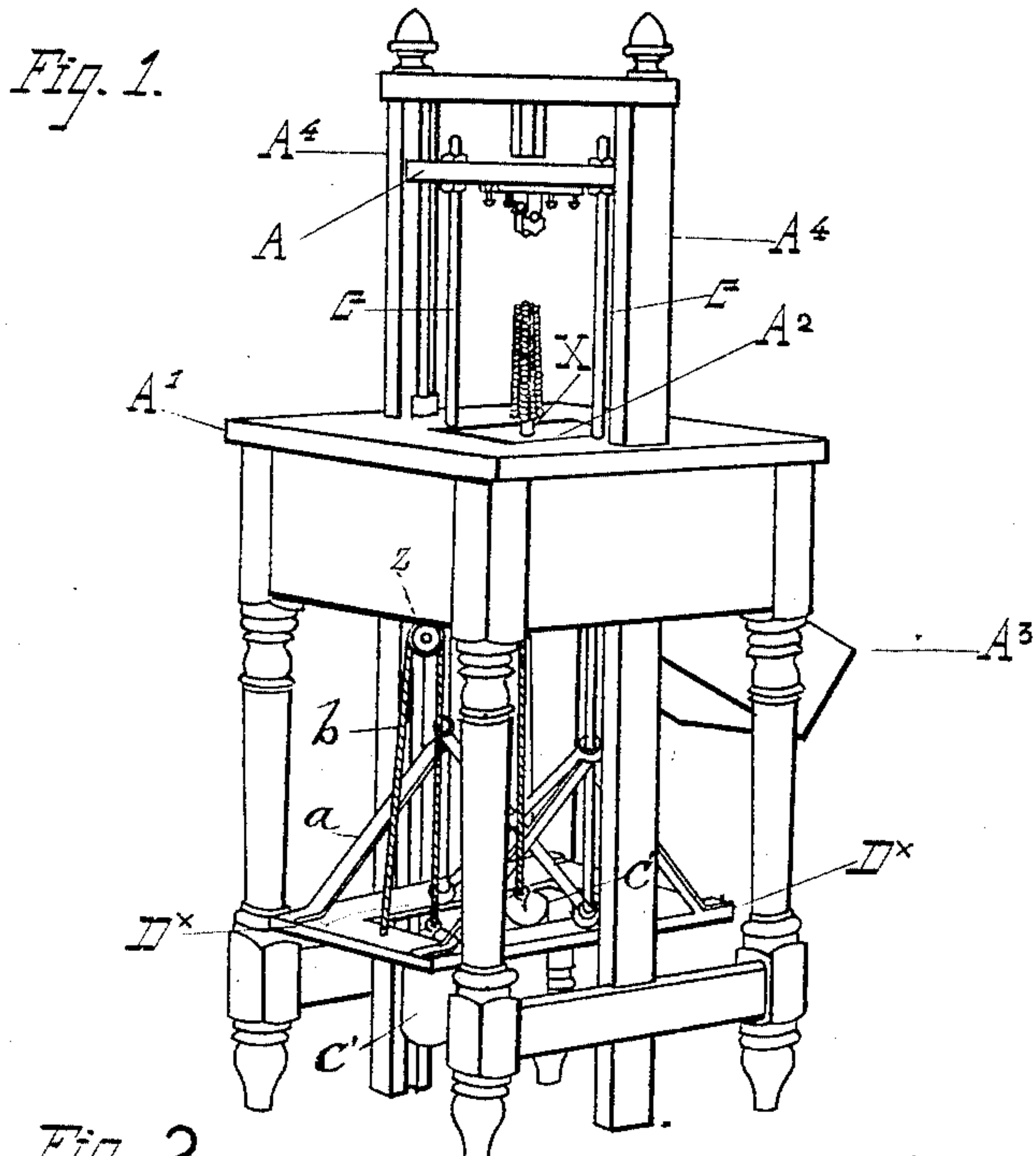
(No Model.)

B. COLLINS.

MACHINE FOR CUTTING CORN FROM THE COB.

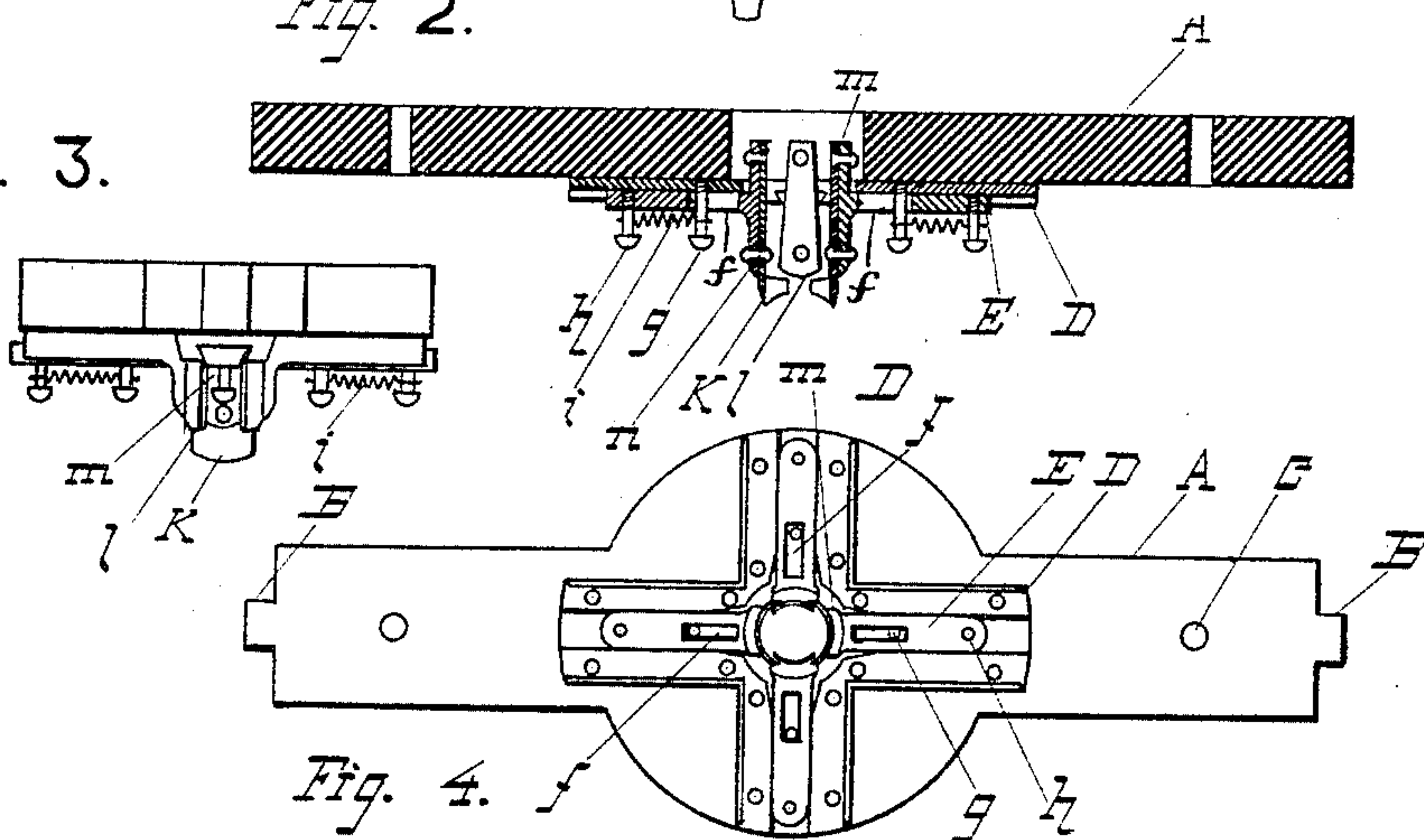
No. 327,864.

Patented Oct. 6, 1885



*Fig. 2.*

*Fig. 3.*



*Fig. 4.*

Witnesses:

*S. A. Owen.*

*J. B. Cumming.*

Inventor:

*Benj Collins*

*By his Atty.,*

*Alphonso B Smith*



# UNITED STATES PATENT OFFICE.

BENJAMIN COLLINS, OF OAKLAND, CALIFORNIA.

## MACHINE FOR CUTTING CORN FROM THE COB.

SPECIFICATION forming part of Letters Patent No. 327,864, dated October 6, 1885.

Application filed January 27, 1885. Serial No. 154,159. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN COLLINS, of Oakland, Alameda county, State of California, have invented certain new and useful Improvements in Machines for Cutting Corn from the Cob, of which the following is a specification.

My invention has for its objects the production of a simple and efficient machine for cutting off corn from the cob; and my improvements therein relate particularly to the construction of the cutting mechanism, and generally to the construction and combination of parts constituting an improved machine for the purpose, as hereinafter fully described and claimed.

Referring to the accompanying drawings, Figure 1 is a general view in perspective of my improved machine. Fig. 2 is a longitudinal view, on a larger scale, and in section, of the reciprocating cross-head and its cutters. Fig. 3 is an end view of the cross-head; and Fig. 4 is a view taken from the under side of the cross-head.

A suitable bench or table, A', with an opening, A<sup>2</sup>, in the top, and a chute, A<sup>3</sup>, leading from it, is provided with upright guides A<sup>4</sup>, between which a movable cross-head, A, is made to move up and down by being attached to a vertically-moving rectangular frame, D<sup>x</sup> D<sup>x</sup>, under the table. This frame is provided with upwardly-arranged guide-arms a, which extend inwardly from the respective corners thereof, and are provided at their upper ends with vertical apertures for the passage of the rods C C, which are connected at their lower ends to the said frame. The ends B B of the cross-head are fitted into grooves in the inner faces of the upright guides.

By pressing upon the frame the operator brings down the cross-head toward the table, and when this pressure is relieved the upward movement is effected by means of cords b and counter-weights C', as shown in Fig. 1; but springs may be employed in place of weights for this purpose. The cords b, passing over pulleys Z, suspended from the under side of the main frame, are secured at one end to the vertically-moving frame D, their opposite ends being provided with counterbalance-weights c'.

The cutters are four blades or knives with straight shanks *m m* and curved cutting-edges, so arranged around a common center that they inclose and form a circle, of which each cutter composes one-quarter or thereabout. The side cutters, *l l*, are somewhat smaller in breadth than the cutters K, and are overlapped thereby, as shown. The curved edges of the cutters are only on the ends of the shanks *m*, and above these cutting-edges the shanks are slotted at *f* for bolts or rivets, by which they are fixed to adjustable slides E. These slides are held in the dovetail grooves of a plate, D, that is fixed to the bottom of the cross-head. They are confined in these grooves against any lateral movement, but are free to slide longitudinally, or toward and away from the center around which the cutters are arranged. A yielding movement of the cutter is afforded by connecting each slide E to a fixed pin or stud, *g*, by means of a coil-spring, *i*, so applied that its tendency is always to draw in the carrier-slide E to the center. Each slide is dovetailed into its grooves, and the spring is attached to the slide by a pin, *h*, and to the fixed pin *g*, that works through a slot, *f*, in the slide E, as shown in Fig. 2.

The cutters thus mounted are self-adjusting, and will adapt themselves to different sizes of cob, and to any variation in the size of a cob as they are forced down over it from point to butt.

Directly under the center of the opening inclosed by the cutters a pin or barb, X, is fixed in upright position on the table to hold and present the cob to the cutter. The cob, when impaled on it, is held upright, while the cross-head is brought down over it by depressing the treadle or frame D, and as the cutters follow down the sides of the cob and enter between it and the kernels they accommodate themselves to the varying size of the cob.

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

1. In a machine for cutting corn from the cobs, the combination, with the head-block, of the plate D, having the dovetail grooves and studs, the slide E, having studs, the springs connecting the said plates and slides, and the

knives, arranged and adapted to operate substantially as specified.

2. The combination, with the main frame having the vertical guide-standards, of the  
5 cross-head carrying the segmental yielding cutters, the vertically-moving frame D<sup>x</sup>, having the bars *a*, provided with the guide-apertures, the rods connecting the said frame with the cross-head, the guides or pulleys, and the

ropes having counterbalance-weights and connected with the frame D<sup>x</sup>, substantially as shown and described.

In witness whereof I have hereunto set my hand.

BENJ. COLLINS. [L. s.]

Witnesses:

R. E. BURNS,

J. B. CUMMING.