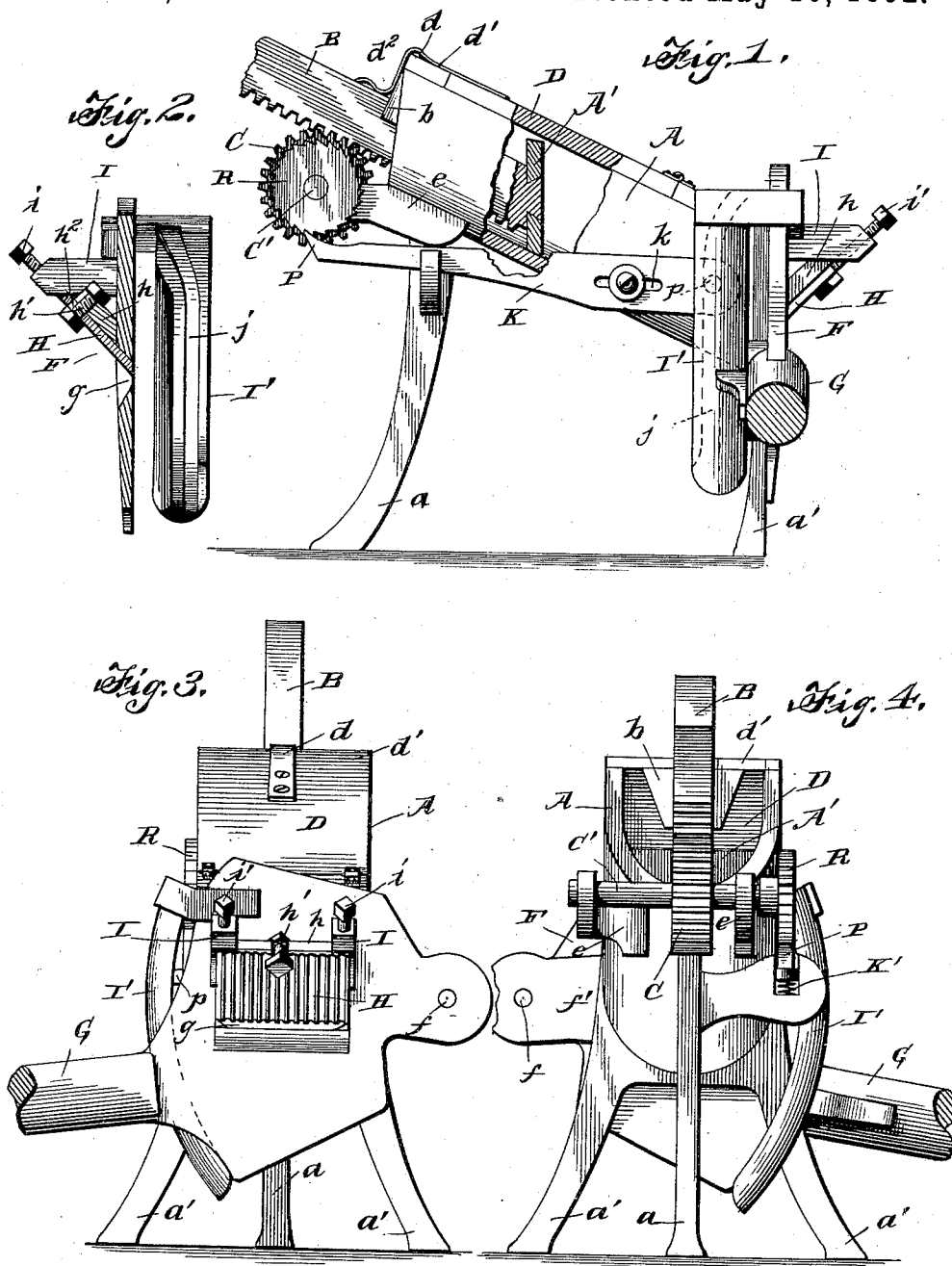


(No Model.)

C. H. FARRINGTON.
HAND BONE CUTTER.

No. 474,728.

Patented May 10, 1892.



Witnesses

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UNITED STATES PATENT OFFICE.

CLARENCE H. FARRINGTON, OF MILFORD, MASSACHUSETTS, ASSIGNOR TO
FRANKLIN W. MANN, OF SAME PLACE.

HAND BONE-CUTTER.

SPECIFICATION forming part of Letters Patent No. 474,728, dated May 10, 1892.

Application filed September 30, 1891. Serial No. 407,345. (No model.)

To all whom it may concern:

Be it known that I, CLARENCE H. FARRINGTON, a citizen of the United States, and a resident of Milford, in the county of Worcester and State of Massachusetts, have invented certain new and useful Improvements in Hand Bone-Cutters; and I do 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

Figure 1 of the drawings is a representation of the cutter in side elevation, partly in section and partly broken away. Fig. 2 is a detail view of the knife-carrier, partly in section. Figs. 3 and 4 are elevations of the machine from opposite ends.

This invention has relation to certain new and useful improvements in cutting-machines especially designed for use in cutting green bone for poultry; and it consists in the novel construction and combination of parts, as hereinafter specified.

In the accompanying drawings, the letter A designates the feed chute or hopper supported upon legs *a a' a'* in an inclined horizontal position and having therein a reciprocating follower or feed-plate *A'*. Said follower is carried by the lower end of a rack-bar B, which works loosely through a guide or bracket *b*, secured to the upper interior portion of the hopper. This bar is designed to have engagement with a gear wheel or pinion C, carried rigidly on a shaft *C'*, journaled in arms or brackets *e*, secured to the hopper. The top plate D of the hopper or chute is hinged at its lower or forward portion and is normally secured to its place by a spring-catch *d* at its upper portion, which engages the top piece *d'*. Said catch also projects forwardly, as shown at *d''*, bearing against the rack-bar B when the cover is closed and holding it in engagement with its actuating-pin-ion C.

F is the cutter-carrier, pivoted at *f* to an arm *f'* of the support and arranged to reciprocate in a vertical plane in close proximity to the lower or discharge end of the chute. Said

knife-carrier has a socket in which is inserted the operating-handle G, or said handle may be otherwise suitably secured to the carrier. In the carrier is a slot *g*, through which projects the cutting-edge of the knife or cutter H. Said knife is held to a piece *h* on the under side of the knife carried by a screw or bolt *h'*, which passes through slots *h''* in said cutter or knife, whereby the adjustment of the cutting-edge is provided for. This adjustment is regulated by the set-screws *i i'*, held in the brackets I and bearing against the rear edge of the knife.

I' is a curved or segmental arm carried by the knife-carrier and reciprocating therewith and having an arc groove *j* in its inner face.

K is a pawl-lever pivotally or loosely secured to the hopper or chute at one side, the pivot bolt or stud passing through an oblong slot *k*, thereby permitting a limited vertical play of said arm. At the lower end of the lever is a stud or projection *p*, which engages and travels in the arc groove *j*. The upper end of the lever has a pawl P, which engages toothed wheel or ratchet R, fast on the shaft *C'*.

As the knife-carrier is reciprocated the stud *p* of the pawl-lever, traveling in the groove therein, will actuate said lever to move the ratchet R, which will in turn actuate the pinion C, and thereby the rack-bar, to give the necessary feed. The chute being set obliquely to the path of the knife a shearing cut is given to the bones and they are prevented from being forced back.

The operation is as follows: The cover is raised and the rack-bar therein thrown out of gear with its pinion. Said bar and follower are then pulled back. The hopper is then filled, the cover closed, and the rack thrown into gear. The knife is reciprocated, actuating the feed, as hereinbefore described. The pawl-lever K is pressed by a spring *K'*. It is obvious that the cutter may be adapted for cutting vegetables or other articles.

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

1. The combination, with the inclined chute or hopper, the follower reciprocating therein, and the rack-bar carrying said follower, of the reciprocating cutter and a segmental arm

carried by the cutter-frame or cutter, and pawl, lever, and ratchet mechanism operated by said arm for actuating said rack-bar to effect the feed when the cutter is reciprocated, substantially as specified.

2. The combination, with the chute or hopper, the follower and its rack-bar reciprocating in said chute or hopper, the pinion engaging said rack, and means for holding said pinion in engagement with the rack-bar and to permit the disengagement of the same, of the reciprocating cutter-carrier and cutter, the segmental arm carried by said cutter-carrier, and the pawl, lever, and ratchet devices operated by said arm when the cutter is reciprocated, substantially as specified.

3. The inclined horizontal feed chute or hopper having a rack-bar and a follower carried by said bar reciprocating therein, the top plate of said chute being hinged thereto to form a cover and held closed by a spring-catch, which in closed position bears against

the rack-bar to hold it in engagement with an operating-pinion, substantially as specified.

4. The combination, with the chute or hopper, of the reciprocating knife-carrier having a cutter adjustably held therein, said carrier having a segmental arm adapted to engage and actuate the feed-operating mechanism when said knife-carrier and knife are reciprocated, substantially as specified.

5. The combination, with the reciprocating carrier, its cutter, and the grooved segmental arm carried thereby, of the pivoted pawl-lever having a stud engaging the groove of said segmental arm, said lever at its upper end engaging a toothed wheel or ratchet arranged to operate the feed, substantially as specified.

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

CLARENCE H. FARRINGTON.

Witnesses:

GEORGE G. PARKER,

JOHN A. MEE.