

(No Model.)

R. C. ELLRICH.
MEAT CUTTER.

No. 474,595.

Patented May 10, 1892.

Fig 1

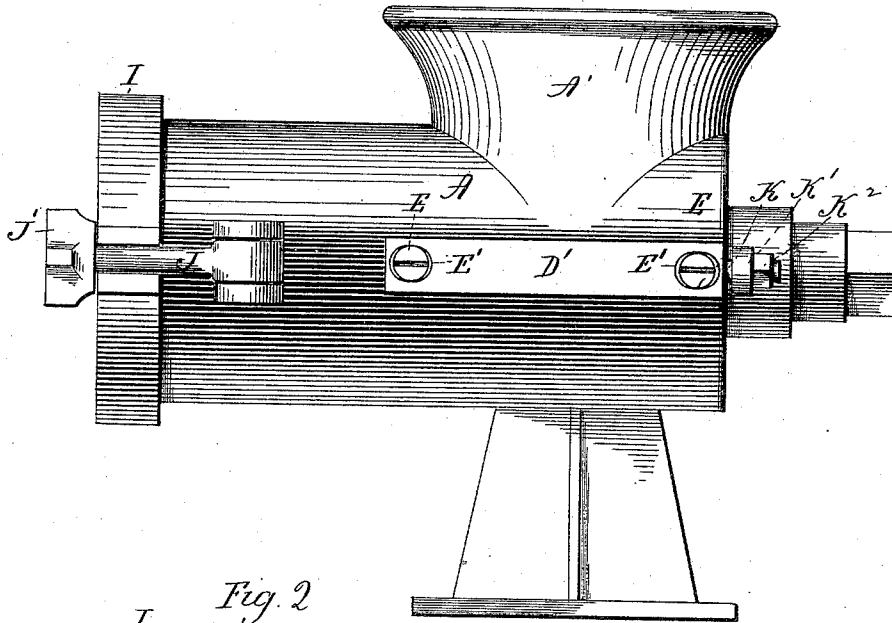


Fig. 2

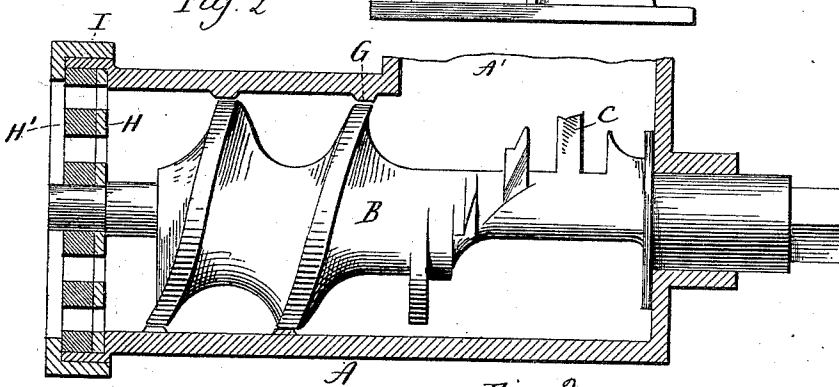
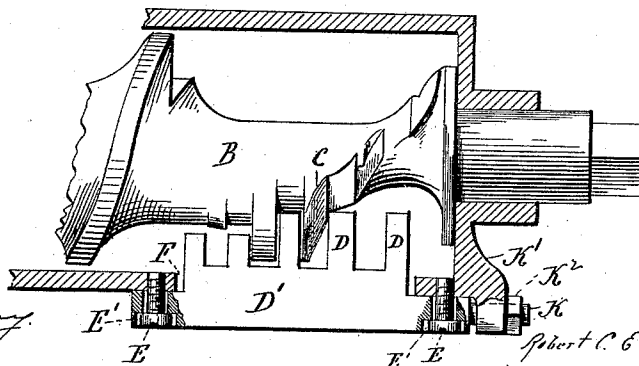


Fig. 3



Witnesses:

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UNITED STATES PATENT OFFICE.

ROBERT C. ELLRICH, OF PLANTSVILLE, CONNECTICUT.

MEAT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 474,595, dated May 10, 1892.

Application filed August 19, 1891. Serial No. 403,076. (No model.)

To all whom it may concern:

Be it known that I, ROBERT C. ELLRICH, of Plantsville, in the county of Hartford and State of Connecticut, have invented a new Improvement in Meat-Cutters; and I do hereby declare the following, when taken in connection with accompanying drawings and the letters of reference marked thereon, to be a full, clear, and exact description of the same, and which said drawings constitute part of this specification, and represent, in—

Figure 1, a view in side elevation of a meat-cutter constructed in accordance with my invention; Fig. 2, a broken view thereof in vertical longitudinal section; Fig. 3, a broken view of the device, partly in plan and partly in central horizontal section.

My invention relates to an improvement in rotary meat-cutters, the object being to produce a simple, compact, convenient, durable, and effective device having a large capacity for work and adapted to cut the toughest meat and gristle.

With these ends in view my invention consists in a meat-cutter having a case provided with a hopper and constructed with a horizontal slot located beneath the same, a feed-screw mounted in the said case and provided at its inner end with radial knives, and a block provided upon its inner face with a series of knives applied to the outer face of the case over the said slot, through which they project for co-operation with those on the screw in the primary or initial cutting of the meat.

My invention further consists in certain details of construction and combinations of parts, as will be hereinafter described, and pointed out in the claims.

As herein shown, the case A of the cutter is cylindrical in form and provided at its inner end with an ordinary hopper A'. The feed-screw B, located within the case, is constructed at its inner end with a series of radial knives C, which, as herein shown, are formed by radially slotting the inner end of its spiral rib, the said knives being located directly below the hopper when the screw is in position in the case. The said heavy rigid alternating knives C co-operate with a corresponding series of knives D, projecting inwardly into the inner end of the case and formed upon the inner face of a block D', which is applied

to the outer face of the case and secured thereto by screws E E, passing through elongated slots E' E', formed in its respective ends, the said teeth formed upon its inner face being entered into the case through a horizontal slot F, formed therein at a point below the hopper and made long enough to permit the block to be adjusted longitudinally to compensate for the wearing of the knives. In other words, the block is made shorter between its knives than the slot. For the purpose of this adjustment the block is provided at its rear end with a threaded stem K, passing through a perforated finger K', cast integral with the case, the said stem being provided with a nut K², which is turned to adjust the block; but I do not limit myself to the particular means shown for adjusting the block or taking up the wear between the knives. Under my construction fixed knives D may be very readily removed, replaced, and also adjusted without disturbing any other part of the instrument.

It will be understood that under the construction described the meat will pass directly from the hopper A' onto the radial knives, which will thoroughly cut it up and disintegrate it at the rear end of the case. After having been so cut up the meat is fed forward and out of the outer end of the case, which may be provided with any approved kind of secondary cutting or forming mechanism.

As herein shown, the interior of the case is provided with a spiral rib G, which co-operates with the feed-screw in feeding the meat to the two perforated disks H H', which are held in place by a collar I, secured to the case by means of two eye-screws J, each carrying a nut J', only one of the said screws and nuts being shown. The perforations in the said disks H and H' are aligned with each other, so that the secondary cutting of the meat may be regulated by turning the outer disk H', whereby the virtual size of the passages through the two disks is varied.

I would have it understood that I do not limit myself to the exact construction herein shown and described, but hold myself at liberty to make such variations therefrom as fairly fall within the spirit and scope of my invention. I am aware, however, that a meat-cutter having its feed-screw provided at its rear end with radial knives co-operating with bowed

elastic knives having a common backing and projecting inwardly into the case through individual vertical slots formed therein below the hopper thereof is old, and I do not claim
 5 such a construction, broadly, but only my particular construction, which not only affords an adequate compensation for wear between the stationary and movable knives without increasing the frictional resistance of their
 10 operation, but also permits the stationary knives to be made heavy enough to withstand the severe strain to which they are subjected. Furthermore, the construction of the case with a single long horizontal slot or opening to receive all of the knives instead of with individual vertical slots for them not only facilitates the cleaning of the device, but reduces the expense of its initial construction.

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

1. In a meat-cutter, the combination, with a case provided with a hopper and constructed with a long horizontal slot located beneath
 25 the same, of a feed-screw having its inner end provided with radial knives, cutting devices located at the opposite end of the case, and a long block provided upon its inner face with a series of heavy rigid knives and applied to
 30 the outer face of the rear end of the case over the said slot for their projection into the case through the said slot for co-operation with the knives of the feed-screw, substantially as described.

35 2. In a meat-cutter, the combination, with a case provided with a hopper and constructed with a long horizontal slot located beneath the same, of a feed-screw having its inner end

provided with radial knives, cutting devices located at the opposite end of the case, and a
 40 block provided upon its inner face with a series of heavy rigid knives, between which it is shorter than the said slot, and applied to the outer face of the case over the said slot, through which they project for co-operation
 45 with the knives of the feed-screw, and means for adjusting the block longitudinally to compensate for wear between the knives, substantially as described.

3. In a meat-cutter, the combination, with
 50 a case provided with a hopper constructed with a long slot located beneath the same and furnished with a perforated finger located at one end of said slot, of a feed-screw having its inner end provided with radial knives, cutting
 55 devices located at the opposite ends of the case, a block provided upon its inner face with a series of heavy rigid knives, between which it is shorter than the said slot, constructed at each end with an elongated slot
 60 and at one end with a threaded stem and applied to the outer face of the case over the said slot, through which its knives project, screws passing through the said elongated slots in the ends of the block for securing it
 65 to the case, and an adjusting-nut applied to the said stem which passes through the perforated finger of the case.

In testimony whereof I have signed this specification in the presence of two subscribing
 70 witnesses.

ROBERT C. ELLRICH.

Witnesses:

GEO. D. SEYMOUR,
 T. ATTWATER BARNES.