(No Model.) 2 Sheets—Sheet 1.

O. D. WOODRUFF.

MEAT CUTTER.

No. 443,589. Patented Dec. 30, 1890.

Fig. 1.

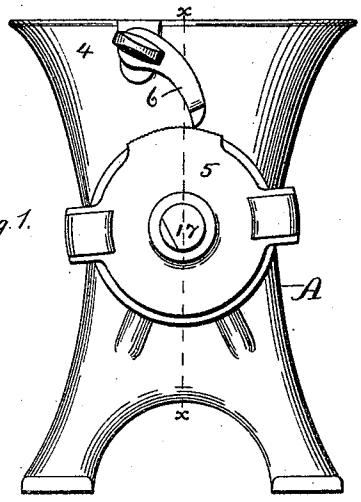
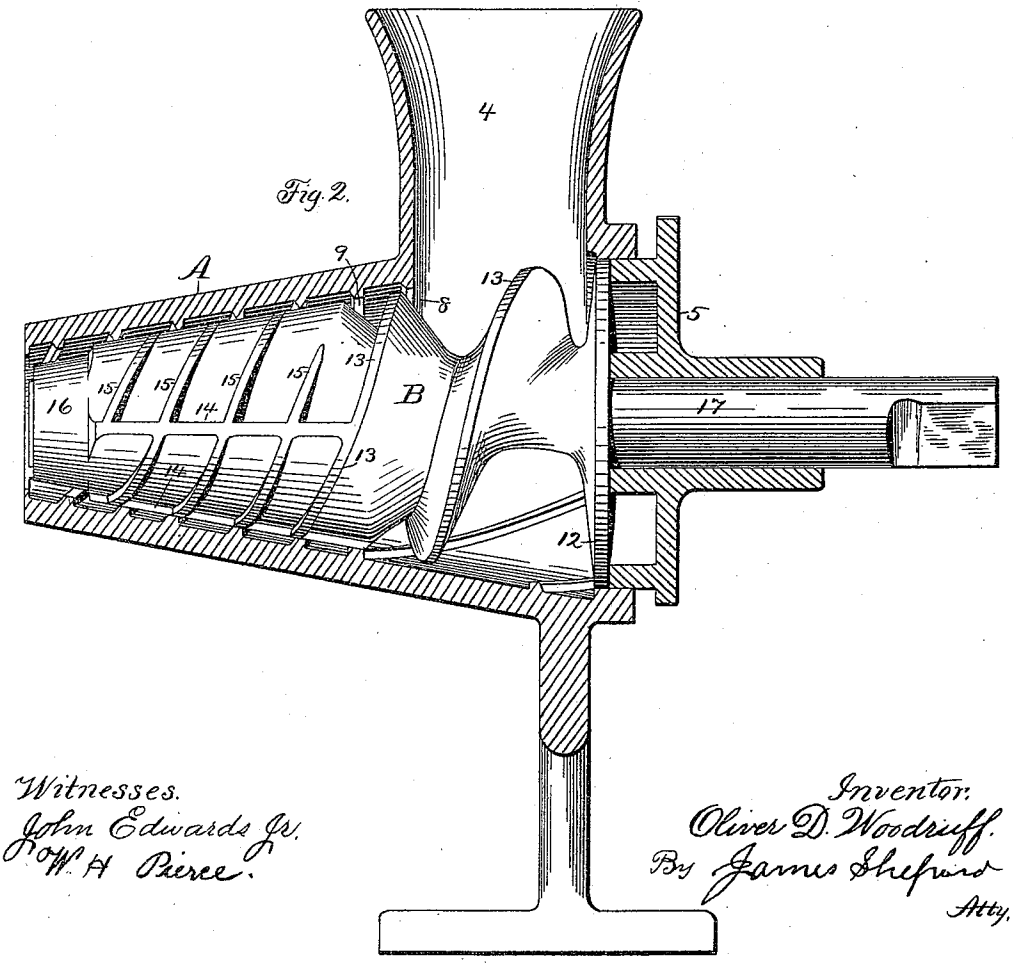


Fig. 2.



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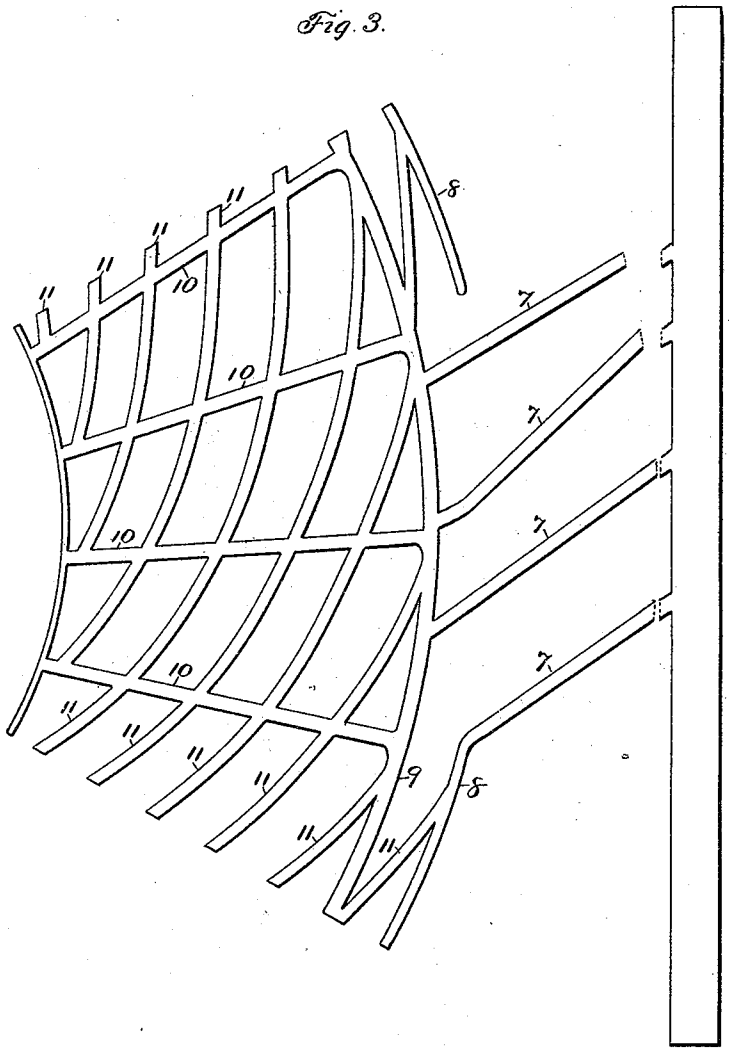
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Fig. 3.



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UNITED STATES PATENT OFFICE.

OLIVER D. WOODRUFF, OF SOUTHINGTON, CONNECTICUT.

MEAT-CUTTER.

SPECIFICATION forming part of Letters Patent No. 443,589, dated December 30, 1890.

Application filed June 21, 1890. Serial No. 356,290. (No model.)

To all whom it may concern:

Be it known that I, OLIVER D. WOODRUFF, a citizen of the United States, residing at Southington, in the county of Hartford and State of Connecticut, have invented certain new and useful Improvements in Meat-Cutters, of which the following is a specification.

My invention relates to improvements in meat-cutters; and the objects of my improvements are simplicity of construction and general convenience and efficiency in operation.

In the accompanying drawings, Figure 1 is a side elevation showing the crank end of my machine with the crank removed. Fig. 2 is an enlarged vertical section of the case and cap on the line *x x* of Fig. 1, and Fig. 3 is a developed plan or diagram of the prominent surfaces of the interior of the case.

The case A is of tapering form, with a hopper 4 and holding-cap 5 at the large end, said cap being held in engagement with the case by means of lugs and holding-dog 6, all as shown, described, and claimed in another application filed by me of even date with this application—viz., June 21, 1890, Serial No. 356,291. It is therefore evident that the holding-cap and the manner of securing the same are not essential parts of the present invention, and other known forms of cap and holding mechanism may be substituted therefor. The interior of the case immediately under the hopper is provided with feeding-grooves 7, which extend at an oblique angle to the case and merge into or terminate with the circumferential knives 8 and 9, the knife 8 extending only half-way around the case on the upper side, while the knife 9 extends around the entire circle of the case. The portion of the case toward the small end beyond the hopper and said circumferential knives is provided with a series of longitudinal knives 10 and oblique or inclined ribs 11, the latter extending around the case at a lesser degree of inclination than the feeding-ribs 7. The longitudinal knives 10 and oblique or inclined knives 11 intersect each other on the front side of said longitudinal knives. Within this case, I fit a combined forcer and cutter B, having a flange 12, which fills the large end of the case, from which flange a screw or forcing-rib 13 extends toward the small end of the case. The core at the part immediately under the hopper should be small to facilitate the entry of the meat. At the point beyond the hopper the combined forcer and cutter is provided with longitudinal ribs or knives 14 and with other forcing-ribs 15, intersecting said knives. The delivery end of the combined forcer and cutter is preferably turned down or reduced into a plain conical portion 16 of a less diameter than that end of the case inside the projecting surface of the ribs.

The shaft 17 is provided with a suitable driving-crank or rotated by other means, the combined forcer and cutter being adjusted to snugly fit the case. Meat fed into the hopper is forced along by the forcing-ribs 13 and feeding-ribs 7, and upon coming in contact with the circumferential cutters 8 and 9 it is cut by the combined action of said cutters and forcer. As it passes along it is further reduced and cut by the combined action of the other forcing-ribs 15 and longitudinal cutters 14 on the combined forcer and cutter and the longitudinal knives 10 and intersecting oblique or inclined knives 11 on the case, the meat being intercepted in its passage through the machine at the junction of said knives and ribs on the case and combined forcer and cutter, so that it is cut off as fast as it is caught within the angles of the same.

In both the case and the combined forcer and cutter the inclined or spiral ribs merge into the front or cutting edge of the longitudinal knives. The longitudinal knives upon the case and those upon the combined forcer and cutter are of a slightly-different angle, so as to form a shearing cut. The reduced portion at the end of the combined forcer and cutter causes the meat to be delivered in one continuous volume of tubular form, instead of being broken up, thereby improving the appearance of the delivered meat.

I have found by use that a machine of this construction effectually, finely, and rapidly cuts the meat without the employment of a perforated plate and knives or other cutting mechanism in addition to the case and combined forcer and cutter.

The circumferential ribs 8 and 9 are substantially the same as shown and described in the other application of even date herewith,

hereinbefore referred to, and may be omitted, if desired.

I claim as my invention—

1. The combination, with the combined forcer and cutter, of the case having the inclined feeding-ribs 11 and longitudinal knives 10, intersecting each other on the front side of said longitudinal knives, substantially as described, and for the purpose specified.

2. The combination of a case having longitudinal knives and spiral ribs and inclined feeding-ribs, the combined forcer and cutter having the longitudinal knives 14, and forcing-ribs 15 on the front or cutting edge of said longitudinal knives, substantially as described, and for the purpose specified.

3. The combination of the case having the longitudinal knives 10, the feeding-ribs 11, extending to the front or cutting edge of said knife, and the combined forcer and cutter having the longitudinal knives 14 and forcing-ribs 15 merging into the cutting-edge of said longitudinal cutters, substantially as described, and for the purpose specified.

4. The combination of a case provided with feeding and cutting ribs, and the combined forcer and cutter working against said ribs and having the reduced smooth portion 16 at the end within the delivery of the case, substantially as described, and for the purpose specified.

OLIVER D. WOODRUFF.

Witnesses:
JAMES SHEPARD,
JOHN EDWARDS, Jr.