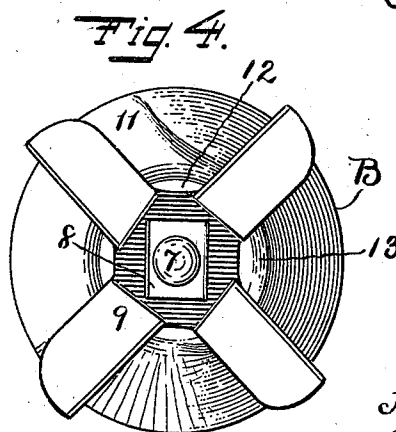
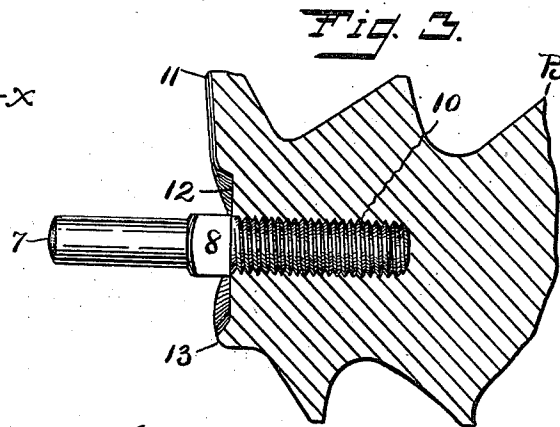
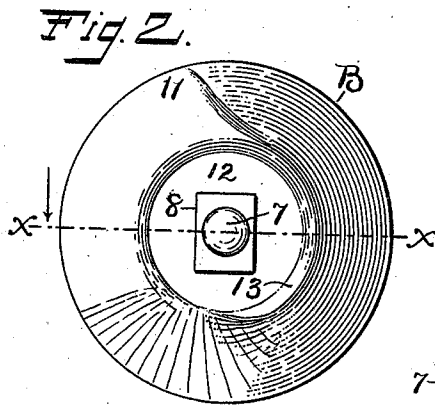
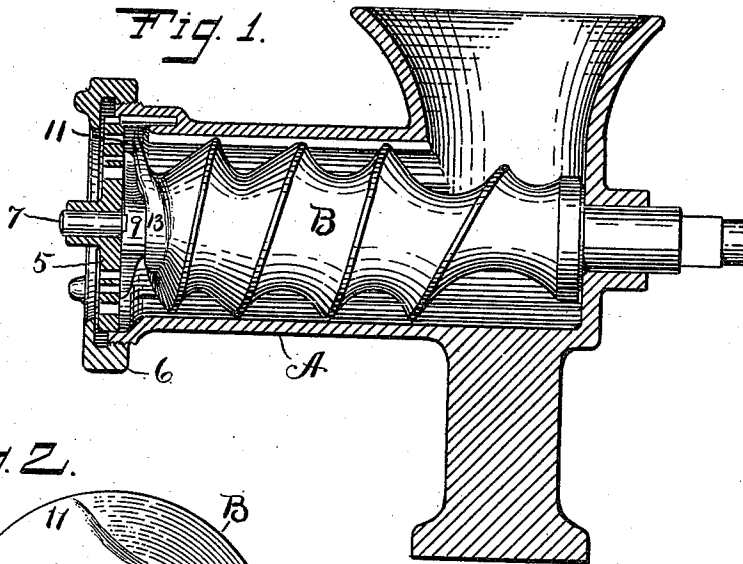


J. J. HECKMAN.
MEAT CUTTER.
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984,668.

Patented Feb. 21, 1911.



Witnesses:

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MEAT-CUTTER.

984,668.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOHN J. HECKMAN, a citizen of the United States, and residing at New Britain, in the county of Hartford and State of Connecticut, have made certain new Improvements in Meat-Cutters, of which the following is a specification.

My invention relates to meat cutters and the object of my improvement is to reduce the amount of meat that remains in the machine after its work is done.

In the accompanying drawings, Figure 1 is a central longitudinal section of the case, perforated plate and holding ring, and a side elevation of the other parts of my meat cutter. Fig. 2 is an enlarged end view of the forcer. Fig. 3 is a sectional view of the delivery end of the forcer on the line $x x$ of Fig. 2, with a side elevation of the stud or journal, and Fig. 4 is an end view of the forcer with the knife in place thereon.

My invention is in the nature of an improvement upon an old combination, the only change which I have made being in the form of the forcer at its delivery end. The particular form of the old combination which I have improved and herein illustrated is found in the patent to Warner, No. 908,714, dated Jan. 5, 1909, but my improvement is applicable to other old combinations of the perforated plate and inner rotary knife type of meat cutters.

A designates the case having at its delivery end a perforated plate 5 that is held in place thereon by a screw ring 6, and B designates the forcer mounted in the ordinary manner to rotate within the said case. The journal or stud 7 that has its bearing within the perforated plate is provided with an angular portion 8 which serves as a driver for the rotary knife 9, the hub of which knife is provided with a corresponding angular opening to receive the driver 8 of the forcer. I prefer to make this stud or journal of a separate piece which is provided with a threaded stem 10 and screwed into a threaded hole in the end of the forcer in the ordinary way of forming and mounting the said stud. As shown the angular driver is four sided and the knife is provided with four arms. The change that I make in the forcer is to extend the end 11 of its thread as closely as possible to the inner face of the perforated plate 5, leaving the periphery of the said end even with

and in continuation of the periphery of the forcer while its end face lies closely to the back of one of the knife arms. As the knife arms are a little thinner than the knife hub I form a depression 12 to receive the knife hub, and thus extend the forcer end 11 a little closer to the knives. In order to protect this depression and turn the meat outwardly to the knife arms, I form a wall or ridge 13 on that portion of the recess that is not protected by the end face 11 whereby the end face and the ridge together completely surround the knife hub receiving recess. The width of the end face 11 depends upon the manner of securing the stud and the number of knife arms.

It is essential in order to accomplish the object of my invention that the end face shall always be just back of one of the knife arms so as to act as a clearer and wipe out or carry with it all of the meat within its sweep at each revolution of the forcer. If the stud is screwed in, as shown, the position of the driver 8 on the end of the forcer may vary to the extent of about one quarter of a revolution. Hence with a four armed knife the positions of the knife arms will vary to the same extent. In such case, the width of the end face should be about one quarter of the circumference of the said end,—with a three armed knife, about one third. But if the stud is formed rigidly on the end of the forcer, or otherwise, so that the angular portion always has a definite position on the end of the forcer, then the said end face need be only about the width of the one knife arm. The position shown for the knife arms in Fig. 4, is that of a particular machine used in the preparation of this case. One knife arm is squarely over the end face, which face begins to recede just back of the next adjacent lower knife arm on the left. The position of the driver might be such that the end face would come closely inside two knife arms, but no matter what the position of the driver on the forcer may be, there will always be one knife arm that lies closely to the said end face so that the said knife arm and end face together will sweep all the meat from the entire face of the perforated plate at every revolution of the said end. At the same time, there is always a clear space just back of two or more knife arms so that the general operation is the same as

in the old combination. The result is that when the machine has done its work, that is, when the feeding has stopped and the forcer rotated to clear out the machine as much as possible, there will be but a small amount of meat left in the machine. In the particular machine herein illustrated the residue will be contained between the two knife arms at the left of Fig. 4, and back of the lower one of the said arms, and the amount of the said residue, by actual weight, is only one and a half ounces. The best of other machines of the class leave a residue of four ounces and some of them much more than that.

Although I reduce to the minimum the amount of meat left in the machine, the general operation of the combination is not impaired or otherwise changed.

I claim as my invention:—

1. In a meat cutter the combination of a case, a perforated plate fixed in the delivery end of the said case, a rotary knife having arms with their outer faces bearing against the inner face of the said plate, and a threaded forcer upon which the said knife is mounted to rotate therewith, the said forcer having a single thread with its end extended closely to the inner side of one of the said knife arms and to the periphery of the said forcer.

2. In a meat cutter, the combination of a case, a perforated plate fixed in the de-

livery end of the said case, a rotary knife having a hub and arms with the outer faces of the said arms bearing against the inner face of the said plate, and a threaded forcer upon the delivery end of which the said knife is mounted to rotate therewith, the said forcer having a single thread with its end extended closely to the inner side of one of the said knife arms and to the periphery of the said forcer and a ridge extended partly around the axis of the forcer at the end on that side of the said axis which is opposite the end of the thread, the said ridge and the said end together forming a recess to receive the hub of the said knife.

3. In a meat cutter, the combination of a case, a perforated plate, fixed in the delivery end of the said case, a rotary knife having arms and a hub provided with an angular opening, a threaded forcer and a threaded stem screwed in the end of the said forcer and provided with a journal portion and an angular driver, the end of the thread of the said forcer being extended closely to the inner side of one knife arm, the breadth of the end face of the thread of the forcer being such that the said face will stand behind one of the arms of the knife in all positions of the cutter.

JOHN J. HECKMAN.

Witnesses:

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