Nov. 29, 1927. 1,651,335

M. W. WEISCOPF

SLICING MACHINE

Filed Nov. 18, 1926 3 Sheets-Sheet 1

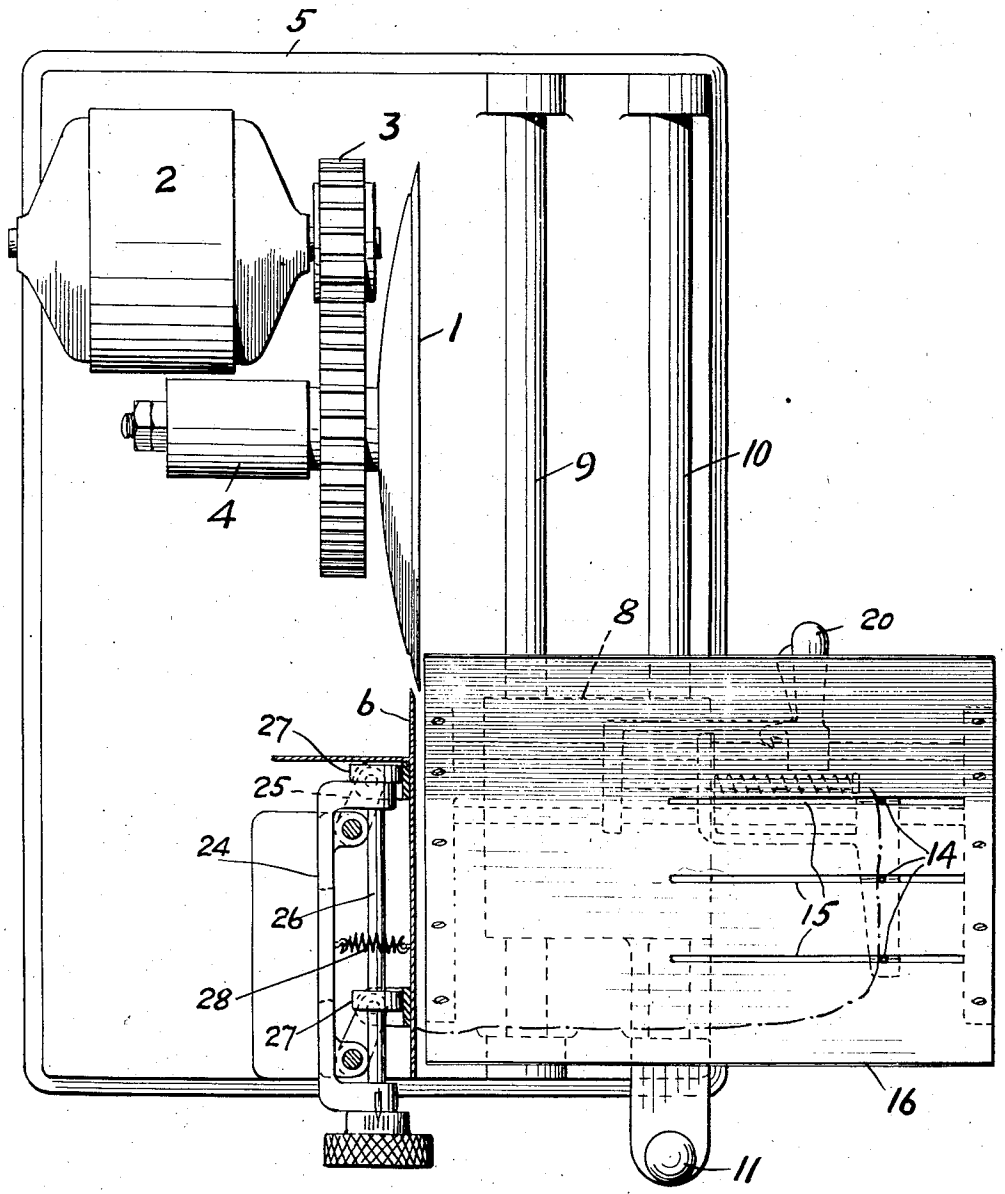


FIG. 1.

INVENTOR

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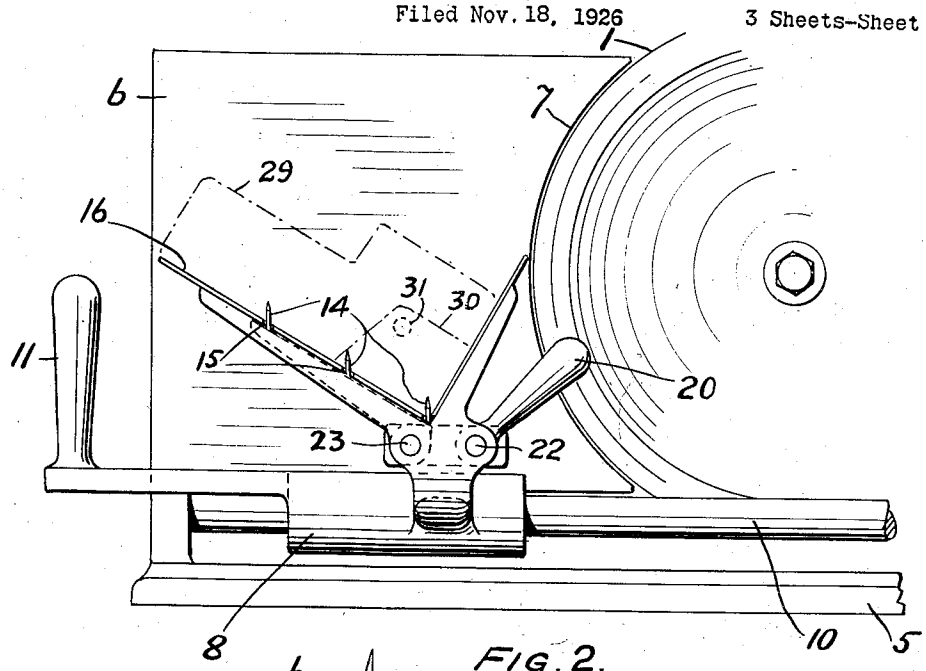


FIG. 2.

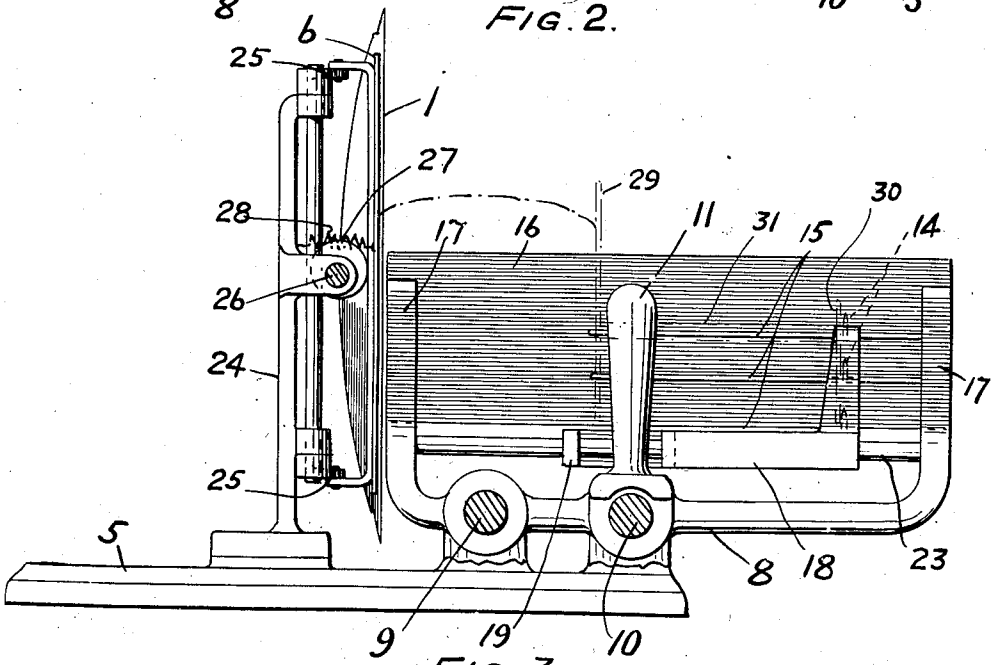


FIG. 3.

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SLICING MACHINE

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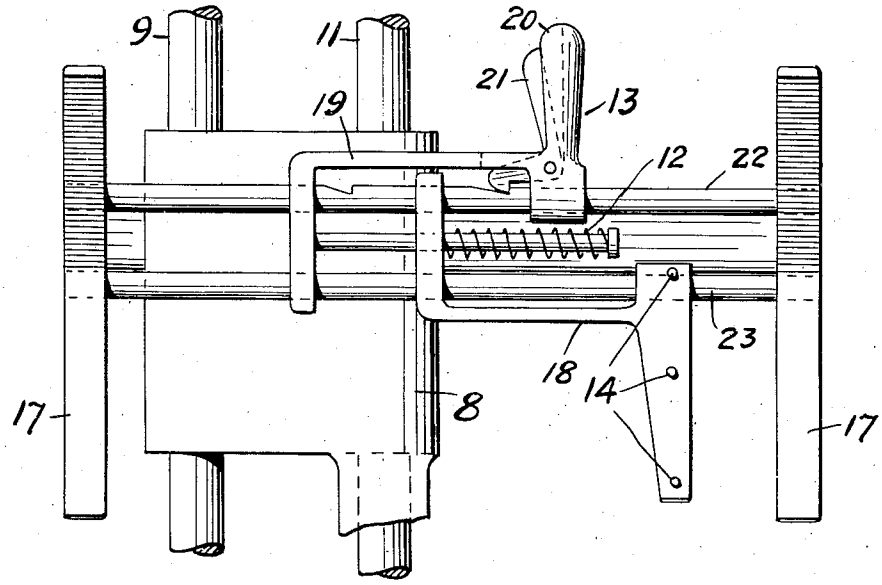


FIG. 4.

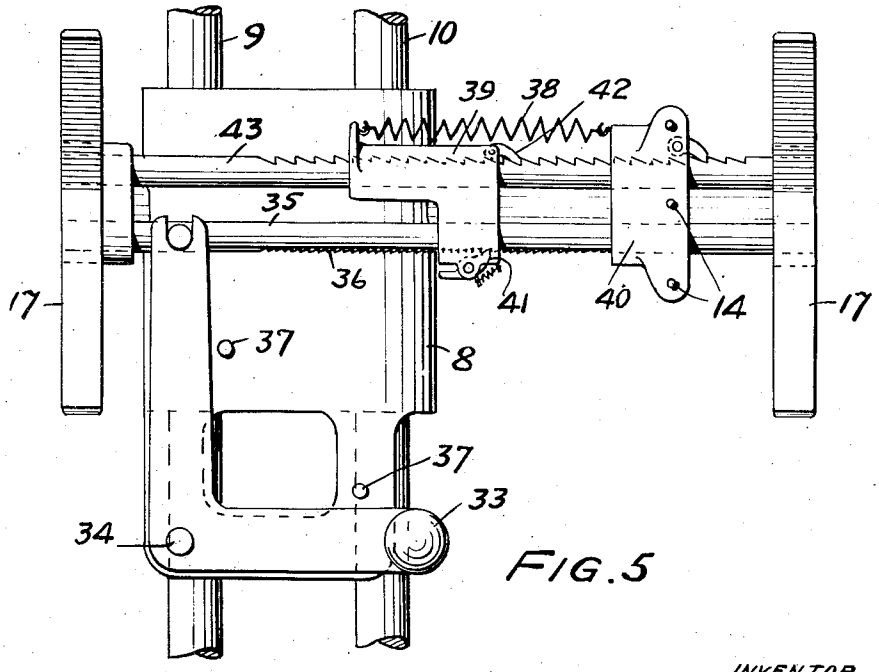


FIG. 5.

WITNESS:

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UNITED STATES PATENT OFFICE.

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SLICING MACHINE.

Application filed November 18, 1926. Serial No. 149,082.

The present invention relates to slicing machines of the type in which the meat carriage is reciprocated in respect to a disk knife.

Objects of the present invention are to provide means in or on the carriage for constantly and positively urging the meat or other object to be sliced forward; to cause said means to operate by reaction after manual setting; to obviate all necessity or temptation for the operator to put his hands or fingers in any position where they might be subject to injury; and to provide an efficient, simple and reliable slicing machine capable of easy and safe operation.

To these and other ends hereinafter set forth the invention, generally stated, comprises a meat slicer having a rotary knife, a gauge plate, a meat carriage arranged to be traversed across the surfaces of the knife and plate, and reaction feed means mounted on the carriage and constantly urging the object to be sliced towards said surfaces.

The invention also comprises the improvements to be presently described and finally claimed.

In the following description reference will be made to the accompanying drawing forming part hereof and in which

Figure 1 is a top or plan view, partly in section, of a slicing machine embodying features of the invention.

Fig. 2 is a front view of the machine.

Fig. 3 is an end view with parts removed looking from the bottom to the top of the sheet upon which Fig. 1 appears.

Fig. 4 is a top or plan view drawn to an enlarged scale with the tray or trough omitted and with the parts in the position they would occupy if an object to be sliced were present, and

Fig. 5 is a view similar to Fig. 4 illustrating a modification.

Referring to the drawings and more particularly to Figs. 1 to 4, 1 is a circular or disk knife mounted for rotation in a vertical plane. As shown it is driven by the motor 2 and gearing 3. 4 is a bearing carried by the base 5 and which supports the axis of the knife. 6 is a vertical gauge plate arranged parallel with the knife 1, and it is shown, Fig. 2, as having an arcuate edge 7 spaced from the cutting edge of the knife for the passage of slices. There is a horizontal carriage, generally indicated at 8, and it confronts the faces of the plate 6, and knife 1 and is arranged for reciprocation crosswise of those faces. As shown the carriage is reciprocated on the rods 9 and 10 mounted upon the base 5 by means of a handle 11. There are reaction means shown as a continuously acting spring 12, and a resetting device 13 therefor, Fig. 4, which urge the object to be sliced into contact with the faces of the plate 6 and knife 1 through the intervention of prongs or hooks 14 afforded movement in slots 15 provided in the tray or trough 16. The tray or trough 16 is shown as mounted in arms 17 provided on the carriage, and the prongs 14 are provided on one of the slides 18 of which the other slide 19 carries the handle 20 and detent 21 which constitute the resetting means. The slides 18 and 19 are movable on rods 22 and 23, spanning the arms 17 of the carriage. The pillar 24 on the stand 5 has connected with it by links 25, of which four are shown, the guide plate 6. The manually operated cam shaft 26 is provided with cams 27 by which the guide plate 6 is adjusted back and forth in respect to the knife 1. The spring 28 keeps the plate up to the cams 27.

The mode of operation may be described as follows:

In the description the object to be sliced, whatever it may be, will be referred to as meat. The plates 29 and 30 spaced by the rod 31 and shown in Figs. 2 and 3 are used in the case of short pieces of meat and when used the plate 30 is acted on by the hooks 14. In the case of long pieces of meat, the hooks 14 act directly upon them. A long piece of meat is indicated by the dot and dash line in Fig. 1 and a short piece of meat is similarly illustrated in Fig. 3. The meat is arranged in the tray and the resetting device 13 is pushed toward the left in Fig. 4 and by the detent 21 locked to the rod 22. This causes the slide 19, acting through the rod 32 to compress the spring 12 in respect to the slide 18. The slide 18 transfers the pressure of the compressed spring by way of the hooks 14 to the meat which, abutting upon surface of the gauge plate 6 and upon the surface of the knife 1, receives the constant urge of the spring. By means of the handle the carriage is traversed back and forth and thus the meat is sliced. The thick-

ness of the slice depends upon the setting of the device 26. As the meat is sliced it of course becomes shorter, and since it is the mode of operation of the invention that the meat shall be urged toward the plate 6 and knife 1, the spring 12 is always kept in compression for which purpose the resetting means are employed.

The construction and mode of operation of the modification shown in Fig. 5 are as above described except as follows:

The handle 33 is pivoted at 34 to the carriage and to the rod 35 which is provided with teeth 36 and afforded endwise movement. The range of movement of the handle is limited by stops 37. The spring 38 is interposed between the slides 39 and 40 of which 40 carries the prongs 14. The function of this arrangement is to keep the spring 38 constantly in tension, and this it does because motion of 39 toward the left is restrained by the spring 38 which is kept in tension by the meat, so that as the rod 35 is moved toward the right, it slips under the pawl 41 on the slide 39, and as the rod 35 moves toward the left it tends to drive the slide 39 toward the left, and in this movement the detent 42 may cooperate by acting upon teeth in the fixed rod 43.

It will be obvious to those skilled in the art to which the invention relates that modifications may be made in details of construction and arrangement and in matters of mere form without departing from the spirit of the invention which is not limited to such matters or otherwise than the prior art and the appended claims may require.

I claim:

1. In a slicing machine a gauge plate, a traversing carriage, hooks on the carriage, reaction means connected with the hooks and adapted to constantly urge them toward the plate, and devices for resetting the reaction means.

2. In a slicing machine a gauge plate, a traversing carriage, feed hooks on the carriage, a pair of rods on the carriage of which one is arranged for endwise movement, a handle afforded a limited range of movement in respect to the carriage and adapted to reciprocate the endwise movable rod, and a pair of spring connected slides of which one is connected with the hooks, and pawl-and-ratchet gear interposed between the rods and slides.

3. In a slicing machine a gauge plate, a traversing carriage, a feeder on the carriage, reaction means connected with the feeder and adapted to constantly urge it toward the plate, and devices for resetting the reaction means.

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