

Aug. 4, 1931.

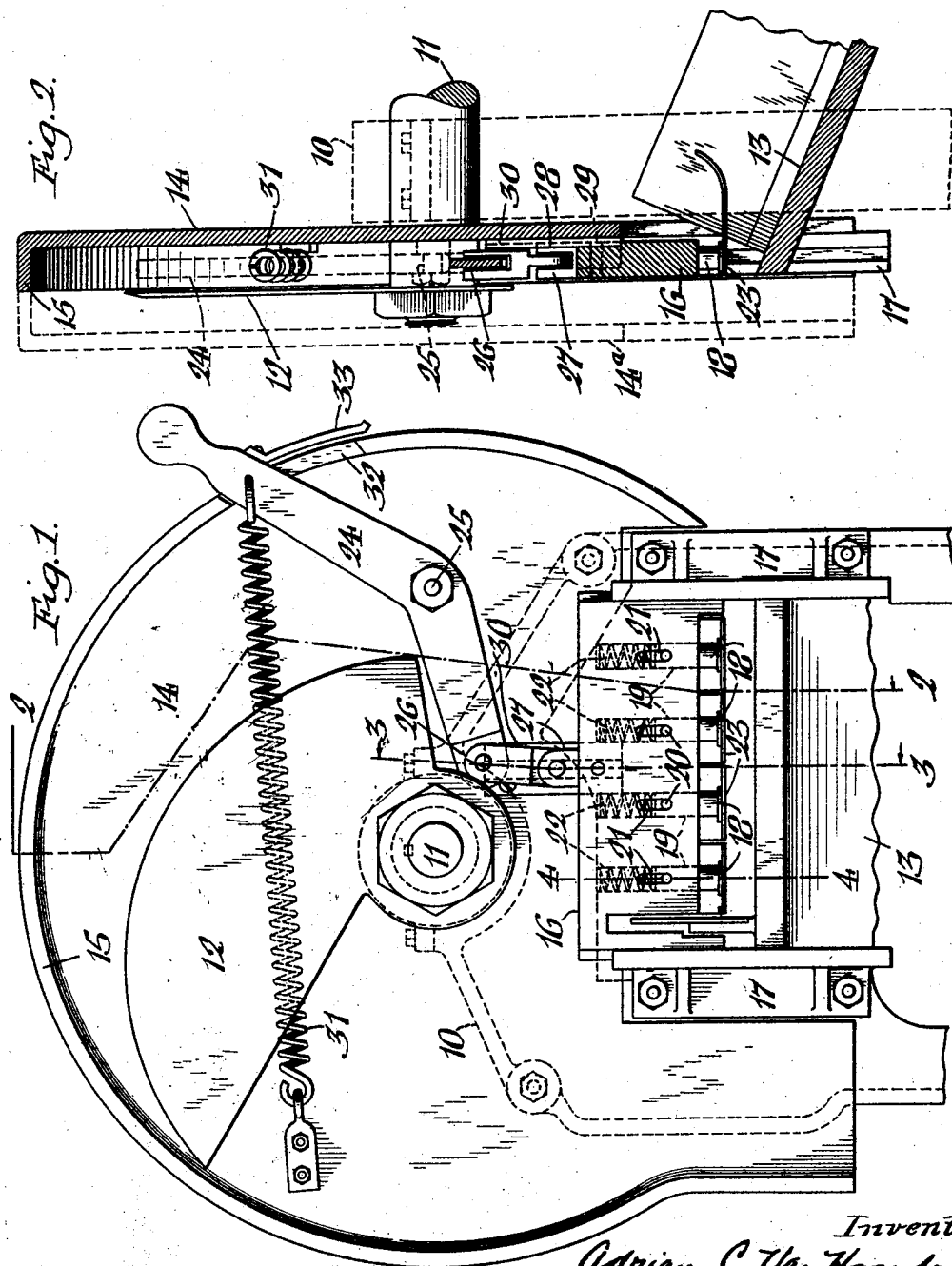
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MEAT SLICING MACHINE

Filed June 20, 1929

2 Sheets-Sheet 1



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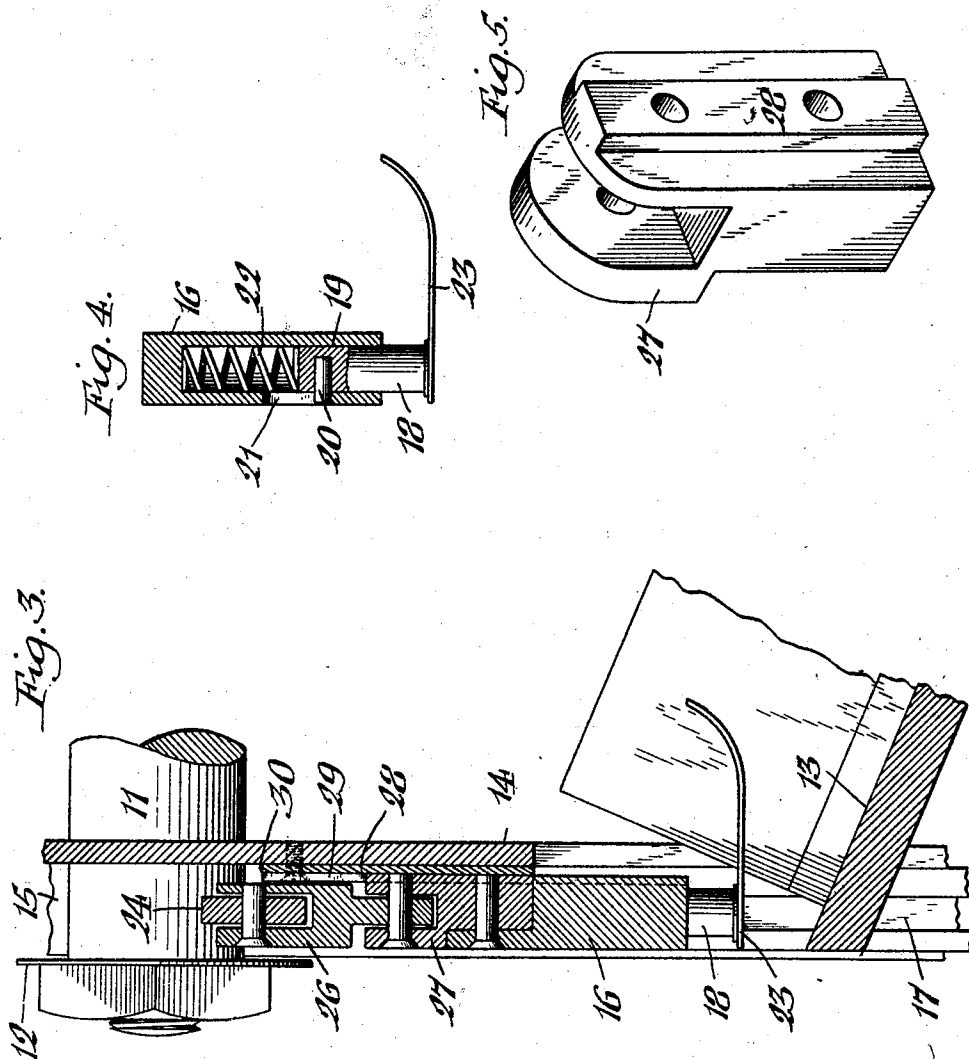
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2 Sheets-Sheet 2



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UNITED STATES PATENT OFFICE

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MEAT SLICING MACHINE

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This invention relates generally to improvements in slicing machines, but more particularly to machines for slicing bacon.

It has for its object the provision of an efficient machine of this character having simple and reliable means for clamping or holding the bacon to the work table.

In the accompanying drawings:—

Figure 1 is a fragmentary front end view of a bacon slicer equipped with my improved clamping device. Figure 2 is a vertical section thereof taken in the plane of line 2—2, Figure 1. Figure 3 is an enlarged transverse section taken on line 3—3, Figure 1. Figure 4 is an enlarged transverse section taken on line 4—4, Figure 1. Figure 5 is a detached perspective view of the lift guide of the clamping device.

Similar characters of reference indicate corresponding parts throughout the several views.

My improved meat clamping device is adapted for attachment to the cutting end of a bacon slicer of any appropriate construction, that shown in the drawings including an end frame 10 in which is journaled one end of a horizontal driving shaft 11 having a knife or cutter blade 12 fixed thereon. Disposed below this shaft is a cutting table 13 on which the bacon or other material is placed for slicing, the table shown being arranged at an angle to the axis of the cutter-shaft for the purpose of slicing the bacon on the bias to obtain a greater width of slice. In machines of this type, the bacon is fed along the table and past the knife by a suitable feed screw mechanism, which it has not been deemed necessary to show.

Secured to the outer side of the end frame is a substantially circular plate 14 having an outwardly-facing flange 15 at its periphery which may constitute a half-section of a guard for the knife 12, the other section 14^a being shown by dotted lines in Figure 2. Contained practically within the dimensional lines of this plate and located above the cutting table 13 is the meat-clamping device which is constructed and arranged to firmly hold the meat on the table during the slicing operation, irrespective of the position of the

table relative to the knife-shaft. This clamping device is preferably constructed as follows:

The numeral 16 indicates a vertically-movable crosshead or clamp-carrying block guided at its opposite upright edges in grooved brackets 17 bolted or otherwise secured to the frame 10 at either side of the front end of the cutting table. Supported in a pendant position from this block are a plurality of transversely-alined clamping rods or plungers 18 which are adapted to engage the top surface of the meat and hold it firmly in place on the table while being sliced. Each clamping plunger is independently supported in a downwardly-opening socket 19 in the block 16 and its movement is limited in either direction by a stop pin 20 engaging an upright slot 21 in said block. A spring 22 housed within the socket and bearing on the top side of the plunger serves to yieldingly urge the latter into gripping engagement with the meat. By this construction, the various plungers can independently adapt themselves to the uneven surface of the meat and separately exert a gripping tension to firmly and securely hold the meat to the table, while permitting the meat to be fed past the plungers into the path of movement of the knife 12.

At their lower ends the clamping plungers 18 may be provided with gripping shoes 23 which are curved upwardly at their front ends to permit the free passage of the meat past them during the slicing operation. As shown in Figure 1, these shoes are somewhat wider than the plungers and provide an extensive gripping face on the slab of meat.

The movement of the clamp-carrying block 16 into and out of gripping position is manually effected by a hand lever 24 fulcrumed at 25 to the plate 14 and connected by a link 26 with a lift guide 27 applied to the upper end of the block and having a tongue 28 at its inner side engaging a corresponding guide groove 29 preferably formed in a plate 30 secured to said plate 14 at one side of the knife-shaft 11. A spring 31 connected to the hand lever serves to constantly hold the latter in its retracted position and urges the

clamping block to its lowered gripping position.

As shown in Figures 2 and 3, the various parts of the meat-clamping device are compactly located between the plate 14 and the plane of movement of the knife 12 and are housed within the guard formed by said plate and its companion section 14^a, whereby the operator of the machine is protected and accidents prevented.

The handle of the lever 24 extends through a slot 32 in the flange 15 of the guard plate 14 and carries a shield 33 for keeping such slot covered.

In the operation of this device, the slab of bacon is placed on the cutting table, the operator first elevating the clamping block 16 by shifting the hand lever 24 downwardly. After the bacon is properly placed for cutting the first slice, the hand lever is released and the clamping block is automatically lowered to bring its plungers 18 into gripping engagement with the bacon. The machine is then operated to slice the bacon in the usual manner, the meat being fed past the revolving knife 12 and the springs 22 applied to the plungers permitting the latter to yield sufficiently to allow for the movement of the bacon slab beneath the plungers.

I claim as my invention:—

1. In a slicing machine of the character described, the combination of a table for supporting the article to be sliced, a cutter, a cross-head arranged over the table for movement toward and from the same, pendant plungers mounted on said cross-head and provided at their lower ends with gripping shoes having their front edges upwardly curved and arranged to engage the article to hold it in place on the table, and means for yieldingly resisting upward movement of said plungers.

2. In a slicing machine of the character described, the combination of a table for supporting the article to be sliced, a cutter, a cross-head arranged over the table for movement toward and from the same, said cross-head having a plurality of downwardly-opening sockets therein, and yieldable clamping elements arranged in said sockets for individually exerting a gripping action to hold the article to the table.

3. In a slicing machine of the character described, the combination of a table for supporting the article to be sliced, a cutter, a cross-head arranged over the table for movement toward and from the same, said cross-head having a plurality of downwardly-opening sockets therein and upright slots opening into said sockets, plungers arranged in the sockets for clamping the article to the table, stop pins on said plungers and engageable with said slots for limiting their movement in either direction, and springs for

yieldingly resisting the upward movement of said plungers.

4. In a slicing machine of the character described, the combination of a table for the article to be sliced, a cutter, a plate arranged vertically over the table in parallel spaced relation to the cutter, and clamping means disposed in the space between the cutter and said plate and movable toward and from the table for holding the article in place thereon.

5. In a slicing machine of the character described, the combination of a table for the article to be sliced, a cutter, a plate arranged vertically over the table in parallel spaced relation to the cutter, a cross-head guided vertically in the space between the cutter and said plate, clamping elements yieldingly suspended from said cross-head and engageable with the article for holding the same on the table, and an actuating lever for moving the cross-head into and out of its operative position.

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