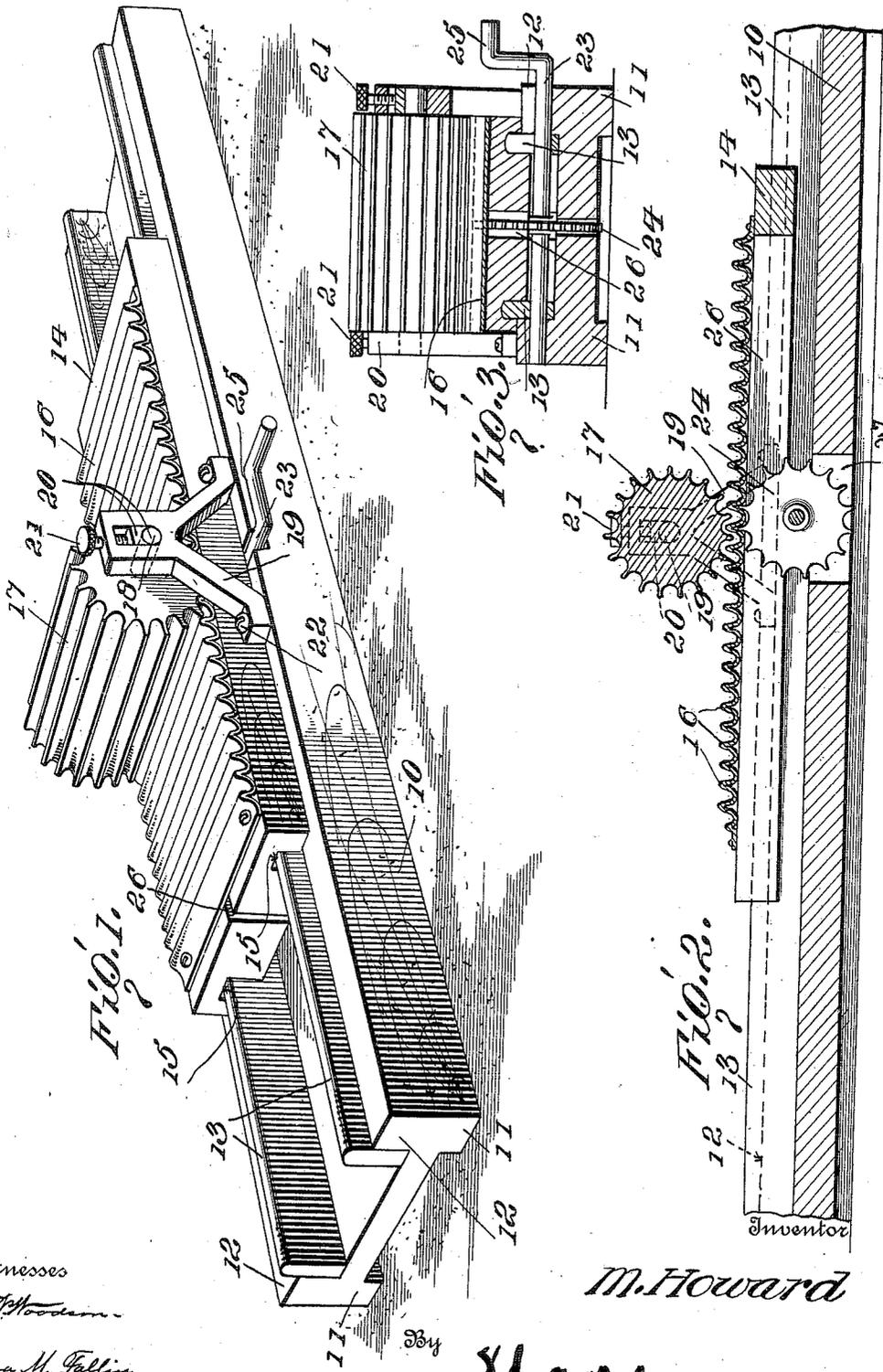


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 MEAT TENDERER.  
 APPLICATION FILED FEB. 15, 1910.

983,056.

Patented Jan. 31, 1911.



Witnesses  
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# UNITED STATES PATENT OFFICE.

MENTOR HOWARD, OF CORVALLIS, OREGON.

MEAT-TENDERER.

983,056.

Specification of Letters Patent. Patented Jan. 31, 1911.

Application filed February 15, 1910. Serial No. 544,166.

*To all whom it may concern:*

Be it known that I, MENTOR HOWARD, citizen of the United States, residing at Corvallis, in the county of Benton and State of Oregon, have invented certain new and useful Improvements in Meat-Tenderers, of which the following is a specification.

This invention relates to crushing machines, and refers particularly to a device for crushing meat, vegetables, and the like.

An object of this invention is to provide a crusher of simple formation which is especially applicable to meat, and which is adapted to crush and stretch the fiber of meat to make the same tender.

The invention has for a further object the provision of a meat tenderer of this character which is adaptable to reduce the steak, which is passed through the same, to a uniform thickness to enable the uniform cooking of the meat and to form fluted surfaces upon the steak so as to present a pleasing appearance when served.

For a full understanding of the invention reference is to be had to the following description and accompanying drawing, in which:—

Figure 1 is a perspective view of the complete crusher. Fig. 2 is a longitudinal vertical section through the same, and Fig. 3 is a central transverse section through the crusher.

Corresponding and like parts are referred to in the following description and indicated in all the views of the accompanying drawing by the same reference characters.

Referring to the drawing the numeral 10 designates the base of the machine which is provided at its longitudinal edges with depending flanges 11 for the purpose of supporting the base 10 and also to space the base upwardly from the supporting surface. The upper face of the base is hollowed to form upstanding flanges 12 at the opposite longitudinal edges of the base 10. Guide rails 13 are positioned upon the base 10 and engaged against the flanges 12 to extend a short distance above the upper edges of the flanges 12 to support a carriage 14. The carriage 14 is formed of a flattened block or body having longitudinal grooves 15 in the under face thereof which are spaced apart and located adjacent the longitudinal edges of the carriage 14 to receive the guide rails 13. The carriage 14 is provided upon its upper face

with a length of sheet metal 16 which is longitudinally crimped to produce a plurality of equi-distantly spaced ridges, or flutes to cooperate with a lengthwise corrugated or fluted roller 17 which is disposed above the carriage 14. The roller 17 is provided at its opposite ends with trunnions 18 which are supported in brackets 19 of inverted Y-formation, the shanks of the brackets being longitudinally slotted to receive the trunnions 18 and to thereby admit of the vertical adjustment of the same. Bearing blocks 20 are loosely disposed within the slots of the brackets 19 and engage downwardly upon the trunnions 18 and are held adjustably in such position by means of set-screws 21 which pass through the upper ends of the brackets 19 and are connected to the blocks 20 at their lower ends. The set-screws 21 thus adjust the space between the crimped strip 16 and the fluted roller 17. The brackets 19 are flanged at their lower ends to engage upon the upper edges of the flanges 12 to which the brackets are secured through the medium of screws 22.

Arranged immediately beneath the roller 17 is a transverse shaft 23 which is passed through the flanges 12 and which carries in rigid relation therewith a toothed wheel 24. The toothed wheel 24 is mounted upon the central portion of the shaft 23 and is of such diameter that the teeth of the same engage upwardly through the carriage 14 and against the under side of the ridges or folds of the strip 16 to impart movement thereto. One end of the shaft 23 is extended beyond the side of the base 10 and bent into a crank-arm 25 by which the shaft may be conveniently rotated.

It will be observed that the carriage 14 is longitudinally and centrally slotted as at 26 for the passage of the toothed wheel 24 therethrough. The base 10 is also cut away at its central portion as at 27 to accommodate the wheel 24.

In the operation of the device a portion of meat is placed upon the crimped strip 16 when the handle 25 is turned to cause the rotation of the toothed wheel 24. The teeth of the wheel 24 engage against the ridges or folds of the strip 16 and cause the longitudinal movement of the carriage 14 when the wheel 24 is rotated. This longitudinal movement of the carriage 14 causes the rotation of the roller 17 as the longitudinal ridges or corrugations of the roller 17 inter-

mesh with the folds of the strip 16 and thereby communicate motion between the same. The steak is forced between the strip 16 and the roller 17 and is crushed and stretched by the intermeshing of the strip and the roller, and is delivered at the opposite side of the machine in a practically uniform thickness with corrugated or fluted surfaces. The adjusting screws 21 are operated to raise or lower the blocks 20 within the brackets 19 in accordance with the thickness of the steak which is passed through the machine and according to the pressure which is to be placed upon the same.

15 Having thus described the invention what is claimed as new is:—

1. A meat tenderer including an elongated base having spaced guide rails, a carriage frame slidably disposed upon the rails, a length of transversely corrugated sheet metal positioned upon the upper face of the carriage, said carriage having a longitudinal slot formed therein to expose the lower face of said sheet of metal, an operating shaft 20 journaled transversely through the base, a toothed wheel keyed to the shaft and en-

gaging upwardly through the slot in the base for engagement against the lower side of the sheet of metal, standards carried at the sides of the base in registration with the operating shaft, and a fluted roller journaled in the standards and loosely meshing with the upper face of the sheet of metal. 30

2. A meat tenderer including an elongated base having spaced guide rails, a carriage mounted upon the rails for longitudinal sliding movement, an operating toothed wheel mounted in the base and extending upwardly through the carriage, said carriage having a transversely crimped sheet of metal secured against its upper face meshing at its under side with the toothed wheel, and a fluted roller journaled upon the base and over the carriage in registration with the toothed wheel. 35 40 45

In testimony whereof I affix my signature in presence of two witnesses.

MENTOR HOWARD. [L. s.]

Witnesses:

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PATTI DURRELL.