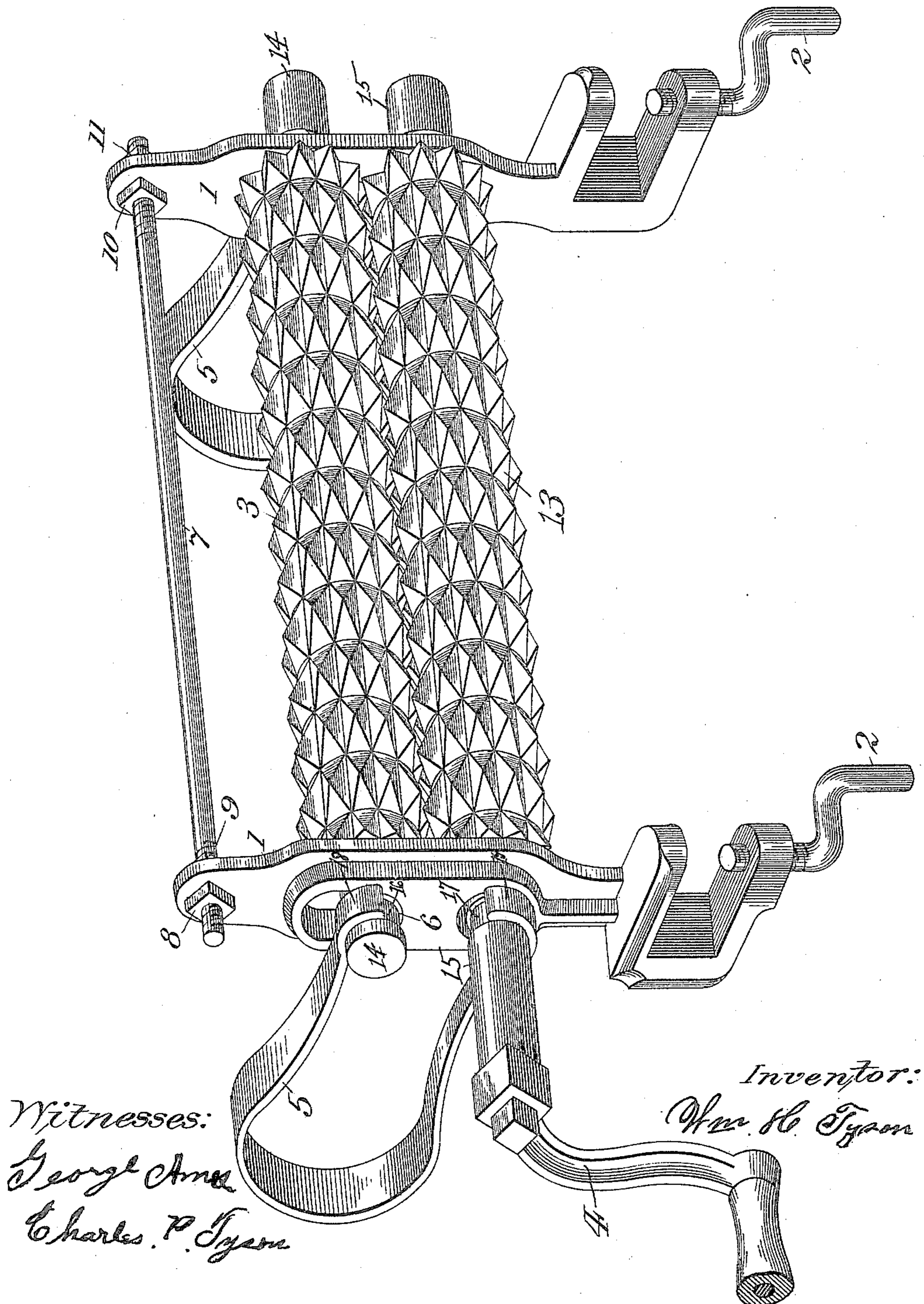


(No Model.)

W. H. TYSON.
BEEF STEAK TENDERER.

No. 446,485.

Patented Feb. 17, 1891.



UNITED STATES PATENT OFFICE.

WILLIAM H. TYSON, OF COFFEYVILLE, KANSAS.

BEEF-STEAK TENDERER.

SPECIFICATION forming part of Letters Patent No. 446,485, dated February 17, 1891.

Application filed October 5, 1889. Serial No. 326,153. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. TYSON, a citizen of the United States, residing at Coffeyville, in the county of Montgomery and State of Kansas, have invented a new and useful Beef-Steak Tenderer, of which the following is a specification.

This invention relates to certain new and useful improvements in that class of machines which are used for rendering slices of steak tender; and it has more particular reference to that class of steak-tendering machines in which the slices of steak are passed between roughened or corrugated metallic rollers.

The invention has for its object to generally improve upon the construction and to render more efficient in operation this class of machines, and to provide a machine in which slices of steak varying in thickness may be subjected to a uniform or approximately even pressure of the rolls, and in which provision is had whereby bones or other hard substances which may chance to be carried between the rollers will be permitted to pass freely without injury to the machine.

To the above ends, and to such others as the invention may pertain, the same consists in the peculiar construction and in the novel combination, arrangement, and adaptation of parts, all as more fully hereinafter described, shown in the accompanying drawing, and then specifically defined in the appended claim.

The invention is clearly illustrated in the accompanying drawing, which, with the figures of reference marked thereon, forms part of this specification, and which represents a perspective view of a meat-tenderer embodying my invention.

Reference being had to the details of the drawing, 1 1 indicate two standards or castings, which form the support for the crushing mechanism and have at their lower ends jaws adapted to engage the edge of a table, and provided with thumb-screws for securing them to the same. These standards are connected at their tops by the rod or bar 7, the screw-threaded ends of which are passed through apertures in the respective standards, and provided with jam-nuts 8, 9, 10, and 11, adapted to hold the standards any desired distance apart. The construction of the standards is substantially the same as that com-

monly used in devices of this nature, with the exception that instead of being provided with two ordinary bearings for the rollers 13 13, the ends of which 14 15 are journaled in the standards, one of the bearings being in the form of a vertical slot, in which the shank of the roller is free to move. Preferably this bearing is the upper one, as shown in the drawing. The shanks of the rollers are provided outside of the bearings with peripheral grooves 16 17, which are adapted to receive the semicircular ends 18 19 of the U-shaped springs 5 5, the latter being placed at right angles to the plane of the roller and adapted to bear on the upper and lower sides, respectively, of the upper and lower roller-shanks. These springs, by reason of their tension, serve to press the rollers together, and when meat is passed between the latter to tender the same. One end of the lower roller-shank 15 is adapted to have a crank or other suitable rotating mechanism secured thereto.

The efficiency of the machine with regard to the tendering of meat depends largely on the teeth of the rollers, which are four-sided pyramids, and are arranged in rows and adapted to intermesh, but to a still greater extent on the method of applying pressure to the rollers, since when the rollers are set at a rigid distance apart the thinner portions of the meat will not be pressed at all, while the thicker parts will be spoiled, and at the same time, should a bone come in contact with the rollers, great injury will probably be done to the machine, which objection to a large number of meat-tenderers is overcome by the use of my U-shaped spring; and as it does not support the roller to which the crank is attached, as is sometimes done, no power is absorbed by it in the downward stroke of the crank.

I deem it important that the ends and arms of the U-shaped springs be disconnected, whereby the rollers are not held in fixed relation to each other, as they must be where the arms of the U-springs are held together by a rod or set-screw, as heretofore in this class of devices.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The meat-tenderer herein described, con-

sisting of the two standards having jaws at
their lower ends and in their vertical portion
provided with vertical slots, the tie-bar con-
necting the upper ends of the standards and
5 provided with jam-nuts, the roughened roll-
ers journaled in the standards, one extended
to receive a crank-handle and the other jour-
naled in the aforementioned slot and each
formed with an annular groove at each end

outside the standards, and the U-shaped 10
springs, each having its arms free of the other
and the ends bent to embrace the shafts of
the rollers and to rest in the grooves thereof,
substantially as set forth.

WILLIAM H. TYSON.

Witnesses:

GEORGE AMES,
H. C. PERRY.