

H. P. ROBERTS.
 APPARATUS FOR DEFIBERING MEATS.
 APPLICATION FILED SEPT. 11, 1909.

961,019.

Patented June 7, 1910.

2 SHEETS—SHEET 1.

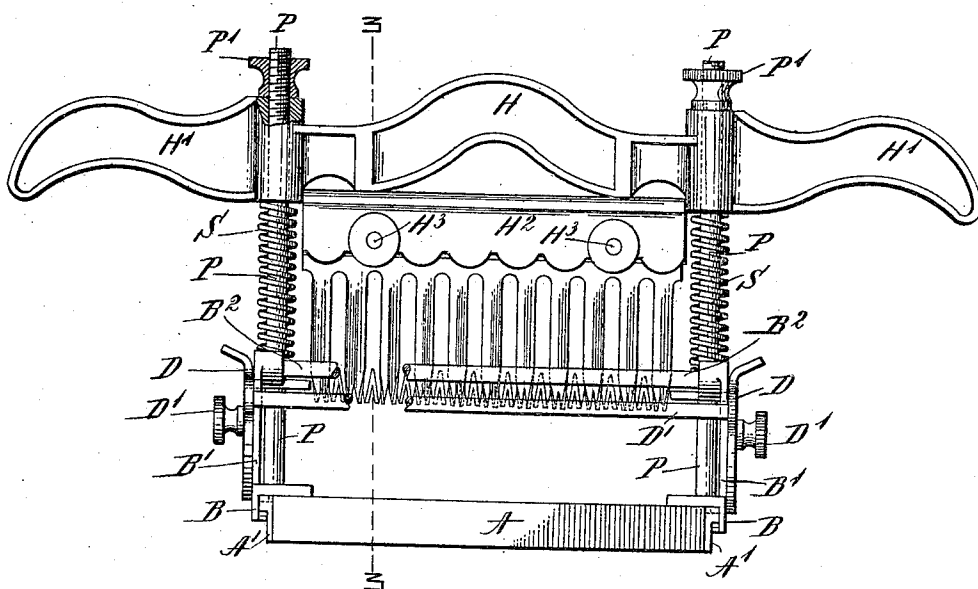


Fig. 1.

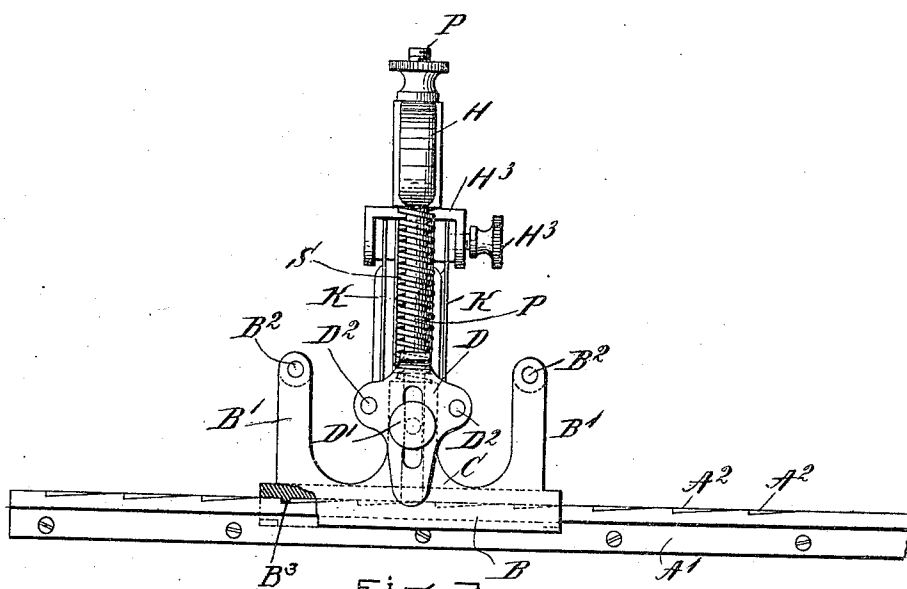


Fig. 2.

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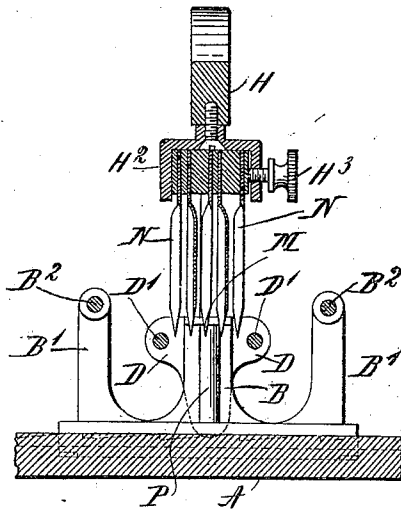


Fig. 3.

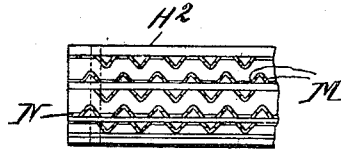


Fig. 4.

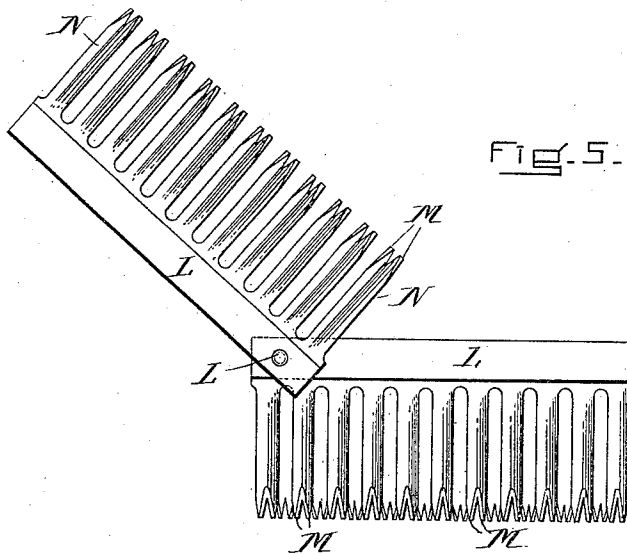


Fig. 5.

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR DEFIBERING MEATS.

961,019.

Specification of Letters Patent.

Patented June 7, 1910.

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To all whom it may concern:

Be it known that I, HENRY P. ROBERTS, a citizen of the United States, residing in Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in an Apparatus for Defiberizing Meats, of which the following, taken in connection with the accompanying drawings, is a specification.

My invention relates to improvements in meat-defiberizing apparatus, of the class in which a plurality of vertically operating knives are employed to sever the fibers of sliced meats into minute particles without destroying or injuring the appearance of the slice, preparatory for cooking, and the principal objects of the invention are to afford a simple mechanism, to provide a novel arrangement, and improved means for adjusting and operating the knives, and to improve the efficiency of the cutting edges of the knives. This object I attain by the mechanism shown in the accompanying drawings, in which—

Figure 1 is an end elevation, showing some parts as broken away for the purpose of better indicating the construction. Fig. 2 is a side elevation of the same. Fig. 3 is a vertical section of the same taken on line 3—3 of Fig. 1. Fig. 4 is a view from below showing working ends of the knives as they appear when combined in gangs, a gang comprising a number of sets hinged together. Fig. 5 shows in elevation two of the sets of knives, one set being hinged to the other and represented as turned up.

In the drawings A represents the base or bottom board, upon which the knife-carrying frame slides. The knife-carrying frame may be described as follows:—The said frame has foot-pieces B constructed to slide on ways A' A' attached to the base, A, see Figs. 1 and 2. Each foot-piece B has a central part C and two standards B' B'; each pair of standards B' B' has a cross-bar B² to strengthen and hold the parts of the frame together.

The ways A, A, are made with notches A², A², Fig. 2, which engage with lugs B³ made on the underside of the foot pieces B. The object of these notches and lugs is to hold the said knife-carrying frame in place while the knives are making one downward stroke.

A rigid bolt P is firmly fixed to each of the foot-pieces, B, B. These parts serve to hold and guide the cross-bar H and its handles H', H'. Springs S, S, are placed on the parts P and serve to hold up the cross-bar H. The upper ends of the parts, P, have screw threads, which engage with the finger-nuts P' P'. These finger-nuts limit the upward movement of the cross-bar, H, that is caused by the springs S S.

A knife socket piece H² is attached to the cross-bar H and is constructed to hold by the aid of the two set screws H³ H³ the gang of cutting knives K, K. For convenience in description, I designate the knives collectively by K, but each individual knife by N. In Fig. 4 a section of the gang of knives, as it would appear looking from underneath, that is, the shape of a cross-section of each knife is shown and the cutting edges are also shown. In Fig. 5 two of the series of knives are shown hinged to each other. The cutting end of each knife is bifurcated as shown, that is, it has two points as shown at M, M, Fig. 5 and each side of each point has sharp edges so that each individual knife N has four inclined cutting edges as shown. By this method of arranging the cutting edges of the knives, that is, by having four inclined cutting edges I insure the thorough elimination of any appreciable fibers without actually cutting the mass of the meat into pieces thus preserving all of the good qualities and looks of the meat.

Upon each side of the knife-carrying frame a sliding plate D is adjustably held by the clamping screw D'; cross-bars D² D² connect the sliding plates as shown. The object of these cross-bars D² D² is to prevent the slice of meat that is being operated upon from being lifted up by the knives as they are thrown up by the springs S, S.

As the knives are worked by the hands of the operator they are caused to move along the base longitudinally so as to operate upon the whole surface of the meat and cut its fibers and thus make the meat tender and palatable without cutting in pieces. To insure treating all parts of the surface, notches A² A² are made on the upper edges of the way A' A'.

Having thus described my invention, what I claim is:

1. In an apparatus of the class described

a base having notched ways on its longitudinal edges; sliding base pieces having notches to engage with the notches on said ways; a knife-carrier mounted on said sliding base pieces; a series of pointed knives mounted in said carrier; handles for operating said carrier, and springs for throwing said carrier upward when said carrier is released by the operator, substantially as set forth, and for the purpose specified.

2. In an apparatus for defiberizing meat, a base having notched ways on its longitudinal edges; sliding base pieces having notches to engage with the notches on the said ways; a sliding knife-carrier mounted on said sliding base pieces; a series of pointed knives mounted in said carrier, said knives having bifurcated cutting points, whereby four cutting edges are obtained for each knife; handles for operating said knives, and springs for throwing said carrier upward when the said carrier is re-

leased by the operator, substantially as set forth, and for the purpose specified.

3. In an apparatus for defiberizing meats, a base having notched ways on its longitudinal edges; sliding base pieces having notches to engage with the notches on said ways; a knife-carrier mounted on said sliding base pieces; a gang of pointed knives mounted in said carrier; each series of knives in the gang being hinged together as described, and springs for throwing said carrier upward when the said carrier is released by the operator, substantially as set forth and for the purpose specified.

In testimony whereof I have signed my name to this application in the presence of two subscribing witnesses.

HENRY P. ROBERTS.

Witnesses:

CHAS. F. HOWE,
E. I. CRONAN.