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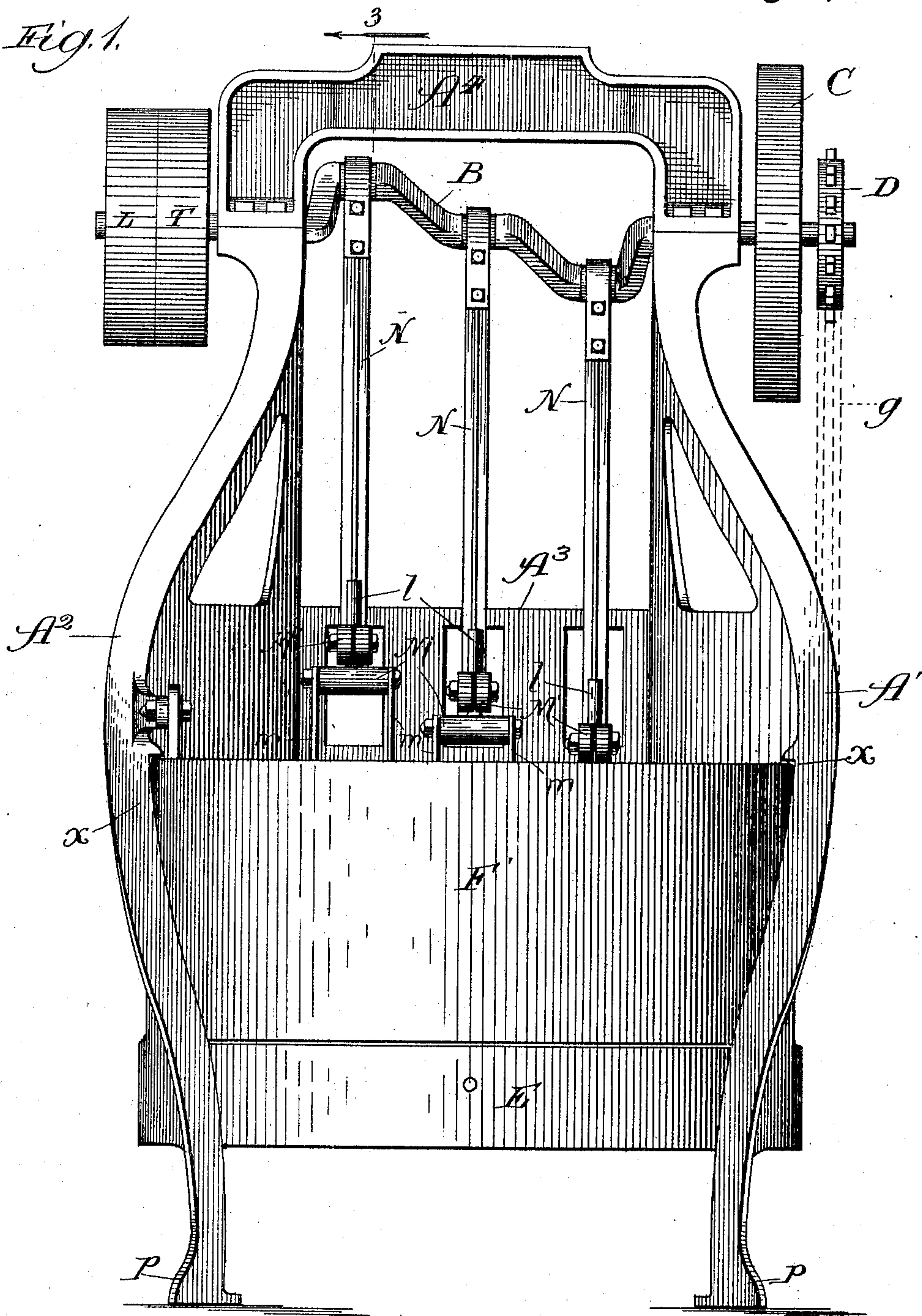
4 Sheets—Sheet 1.

H. LEINEWEBER.  
MEAT CHOPPING APPARATUS.

No. 502,440.

Patented Aug. 1, 1893.

Fig. 1.



Witnesses:

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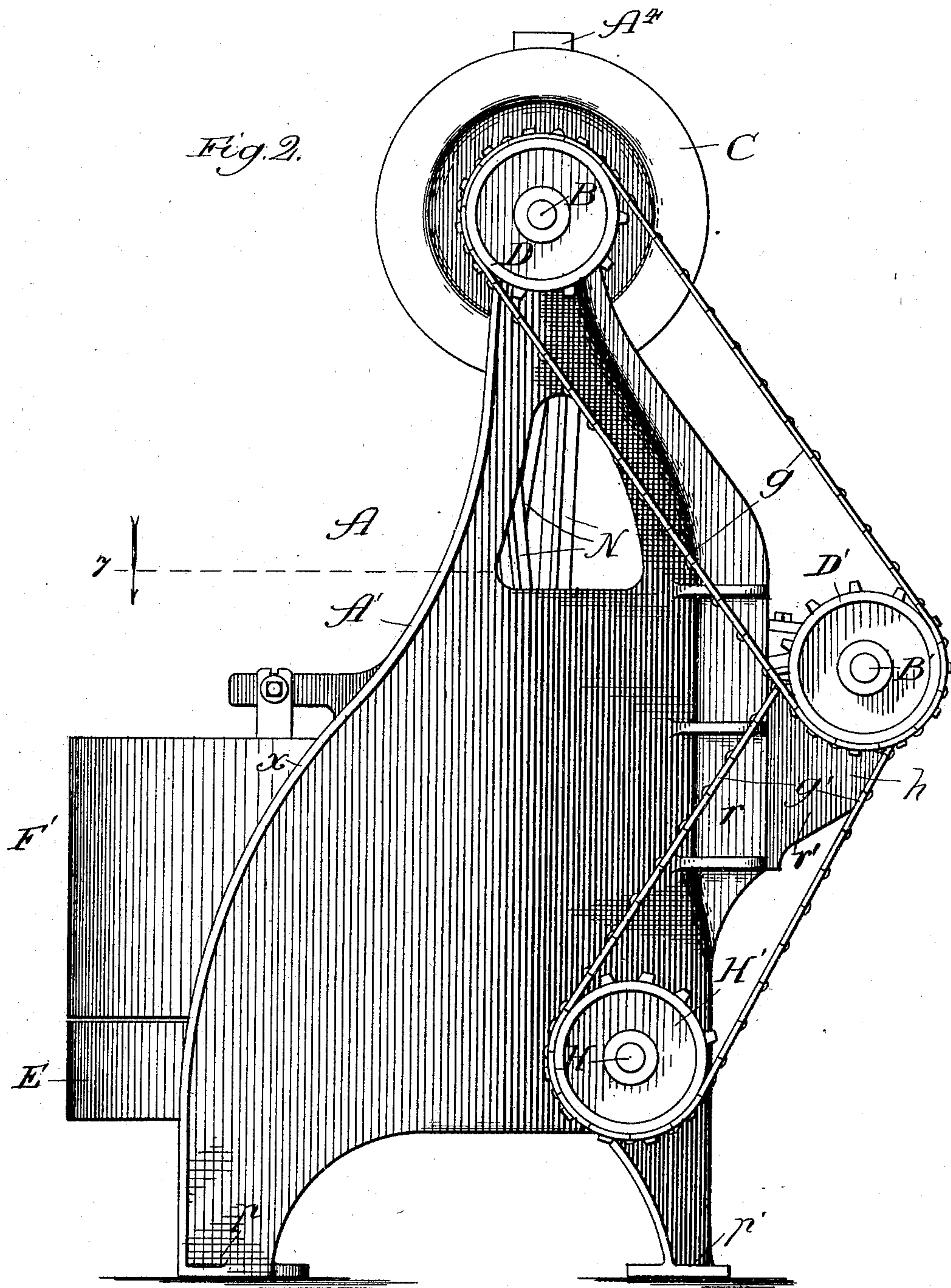
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MEAT CHOPPING APPARATUS.

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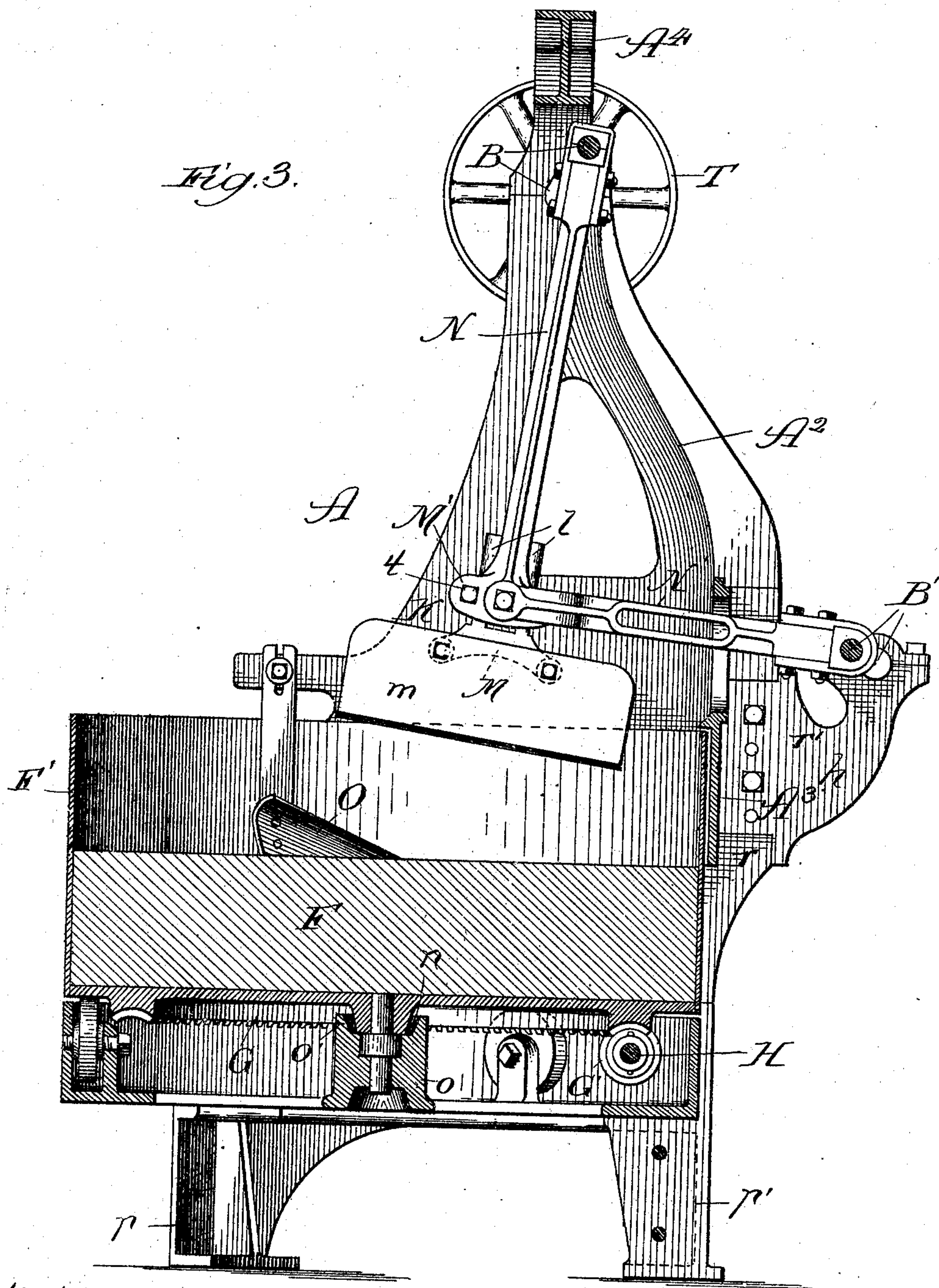
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MEAT CHOPPING APPARATUS.

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Patented Aug. 1, 1893.



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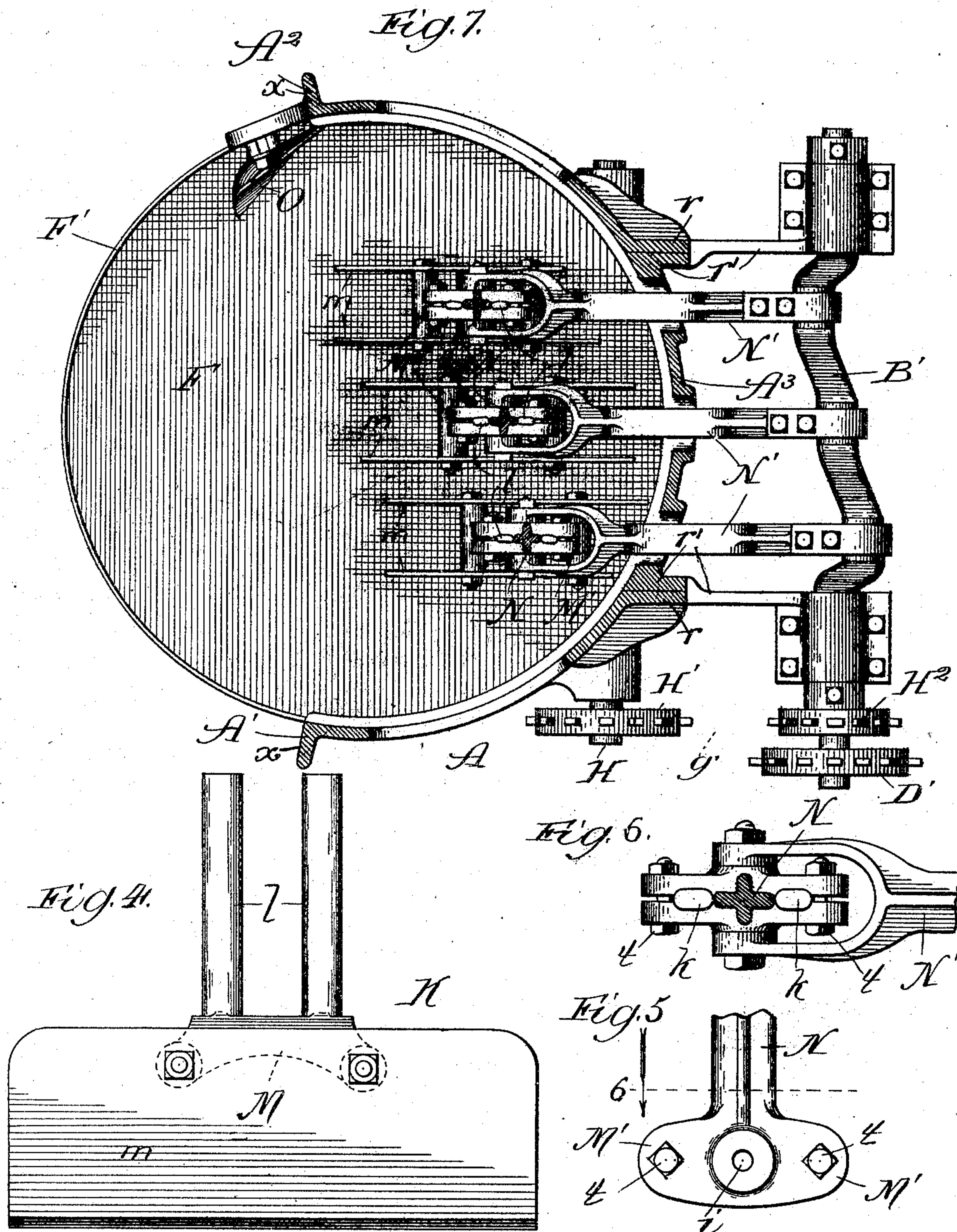
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MEAT CHOPPING APPARATUS.

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Patented Aug. 1, 1893.



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# UNITED STATES PATENT OFFICE.

HERMAN LEINEWEBER, OF CHICAGO, ILLINOIS, ASSIGNOR TO THE CHICAGO MEAT-CHOPPER COMPANY, OF SAME PLACE.

## MEAT-CHOPPING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 502,440, dated August 1, 1893.

Application filed September 17, 1892. Serial No. 446,200. (No model.)

*To all whom it may concern:*

Be it known that I, HERMAN LEINEWEBER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented a new and useful Improvement in Meat-Chopping Apparatus, of which the following is a specification.

My invention relates to an improvement in the class of so-called "draw-cut meat-choppers," in contradistinction to those wherein the cutters are reciprocated vertically to effect merely a chopping or hacking operation.

Referring to the accompanying drawings—Figure 1 is a view in front elevation of a meat-chopping apparatus constructed in accordance with my invention. Fig. 2 is a view of the same in side elevation. Fig. 3 is a section taken at the line 3 on Fig. 1 and viewed in the direction of the arrows. Figs. 4 and 5 are views representing different details in elevation. Fig. 6 is a section taken at the line 6 on Fig. 5, viewed in the direction of the arrow and showing in plan a broken section of a pitman attached. Fig. 7 is a section taken at the line 7 on Fig. 2 and viewed in the direction of the arrow.

A is the supporting frame, which I form in two parts, A' and A<sup>2</sup>, shaped toward their bases as segments of a circle joined at the back of the machine where they are recessed in their upper edges to receive a section A<sup>3</sup>, having flanges r' at its ends at which it is fastened by bolts to flanges r on the edges of the sections A' and A<sup>2</sup> forming the sides of the said recess. On their forward edges the sections A' and A<sup>2</sup> are flanged, as represented at x, the base portions being broadened into feet p; and a third foot p' is provided at the back. These sections extend and taper upward as standards joined at their upper ends by a cross-head A<sup>4</sup> bolted in place and forming with the upper ends of the standards bearings for a crank-shaft B, carrying on one projecting end the loose and tight belt-pulleys L and T, and on the opposite projecting end a balance-wheel C and a sprocket-wheel D.

In the base portion of the frame is supported and rigidly fastened a circular hollow bed E having a central step o provided with a downwardly tapering recess o' in its upper end, therein to seat a tapering boss n extending

from the center of the bottom of the rotary circular chopping-block F having the sheet-metal casing F', and carrying on its base the circular rack G.

G' is a worm supported to engage the rack G on a rotary shaft H journaled in the back of the base-portion of the frame and carrying on its projecting end a sprocket-wheel H'.

K, K are the cutters, in any desired number and of which one may be provided for each crank in the shaft B. I prefer to form each cutter with two blades m, m fastened to opposite sides of a head M, from the top of which extend a parallel pair of stiff bars l, shown as of oval form in cross-section.

N, N are pitmen, each being shown as provided with strengthening webs on its opposite sides, and being strapped, at its upper end, to a crank on the shaft B. The lower end of each pitman is provided with a head M' having an opening k extending perpendicularly through it at each side of its center to admit the bars l of a head M, the head M' being split from each opening k therein to its outer extremity whereby the head may be clamped on the said bars passing through its openings by bolts t serving to force the split ends of the head M' together.

On the opposite sides of the heads M' are bosses i, on which are journaled the bifurcated ends of pitmen N', one for each cutter and extending thence backward through openings in the frame-section A<sup>3</sup> to a crank-shaft B', to which it is strapped and which is journaled at the rear of the frame A in brackets h. The crank-shaft B' carries sprocket-wheels D' and H<sup>2</sup> connected by chains g and g' respectively with the wheels D and H'.

In order that the action of the cutters may not be continually against the same points on the top of the block F, the diameter of the wheel H<sup>2</sup> should be less, as indicated in Fig. 7, than that of the other three sprocket-wheels, which may all be of the same diameter.

The operation is as follows: Rotation of the shaft B produces that of the shafts B' and H and, consequently, of the block F. The crank-connection of the pitmen N with their shaft works the cutters up and down; and the pitmen-connection of the cutters with the rotating crank-shaft B' gives them an undulatory



motion whereby they exert an effective draw-cutting function on the meat placed on the revolving block F to be chopped and which may be automatically turned by any suitable turning-blade, such as the stationary blade O represented in Fig. 7. The direction of cut of the cutters may be either forward or backward, depending on the rotation of the shaft B with relation to that of the shaft B'.

The described means for adjusting the cutters and the pitmen N are convenient and simple, and permit the cutters to be quickly removed, as for sharpening, and replaced or supplanted by others, and also adjusted with relation to the top of the cutting block, as may be required, say, to compensate for the wear upon it.

What I claim as new, and desire to secure by Letters Patent, is—

1. In a meat-chopping apparatus, the combination, with a rotary block F, of an upper crank-shaft B, a pitman N connected with a crank on the shaft and terminating at its lower end in a head M' having the openings  $k$ , a cutter K provided with the bars  $l$  fastened in the said openings  $k$ , a crank-shaft B' behind the cutter and geared to the crank-shaft B, and a pitman N' connecting the shaft B' from

a crank thereon with the cutter, the upper crank-shaft operating to actuate the cutter up and down with relation to the block and the rear crank-shaft to actuate it through an undulatory plane and produce therewith a draw-cut, substantially as described.

2. A meat-chopping apparatus comprising, in combination, a frame A formed with the parts A', A<sup>2</sup> and A<sup>3</sup>, and carrying a stationary base E, a rotary block F pivotally supported on the base and provided with a rack G, a rotary shaft H journaled in the frame and carrying a worm G' meshing with the rack, a crank-shaft B journaled in the upper portion of the frame, cutters K having heads M provided with bars  $l$ , pitmen N connected with the shaft B and terminating at their lower ends in heads M' having openings  $k$  in which the bars  $l$  are inserted and fastened, a crank-shaft B' journaled in the frame behind the cutters and geared to the shaft B, and pitmen N', connecting the shaft B' with the cutters, the whole being constructed and arranged to operate substantially as described.

HERMAN LEINEWEBER.

In presence of—

J. W. DYRENFORTH,  
W. N. WILLIAMS.