

# *A. R. Silver's Meat & Vegetable Cutter.*

Fig. 1  
117003

PATENTED JUL 11 1871

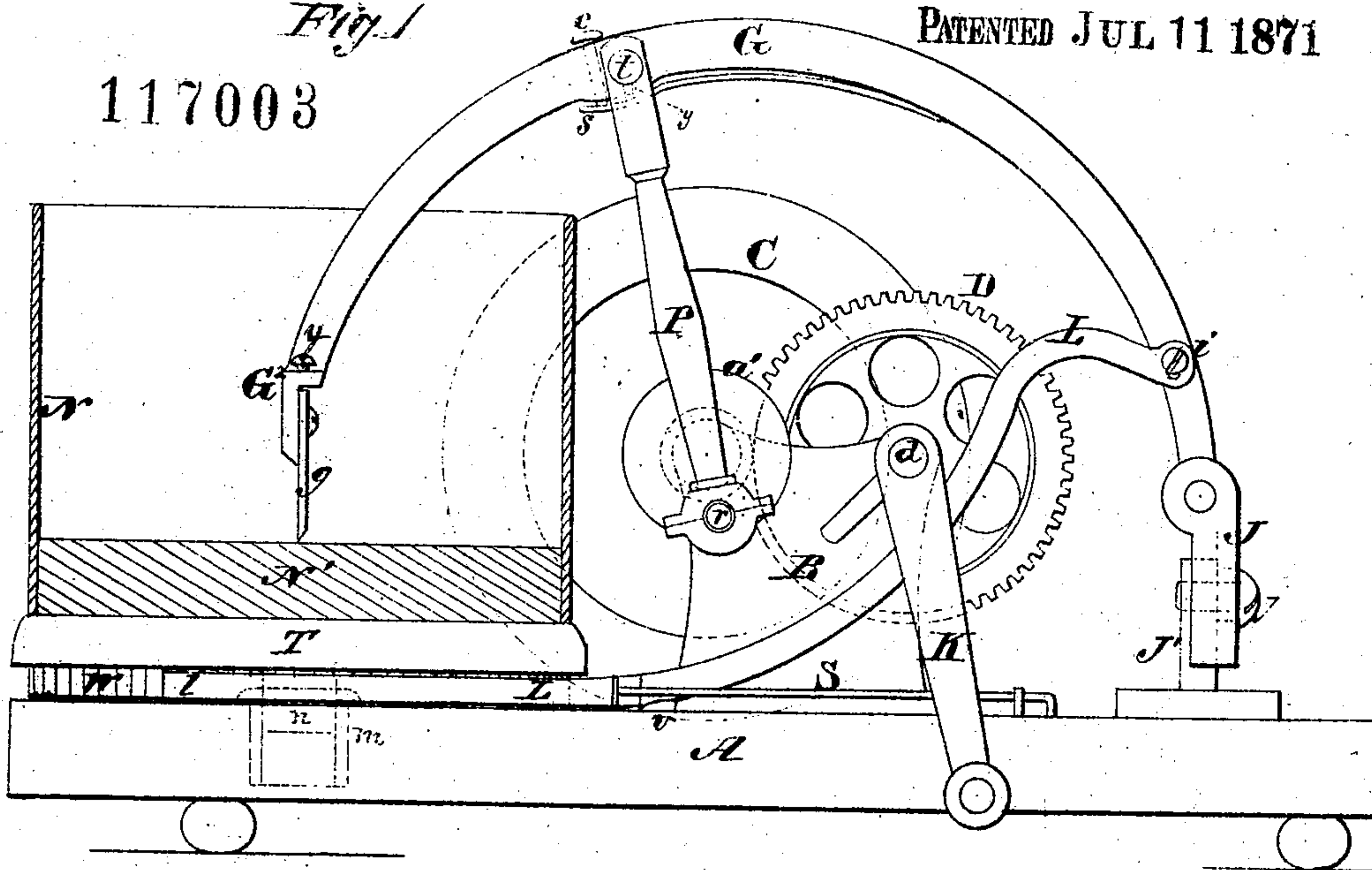


Fig. 2

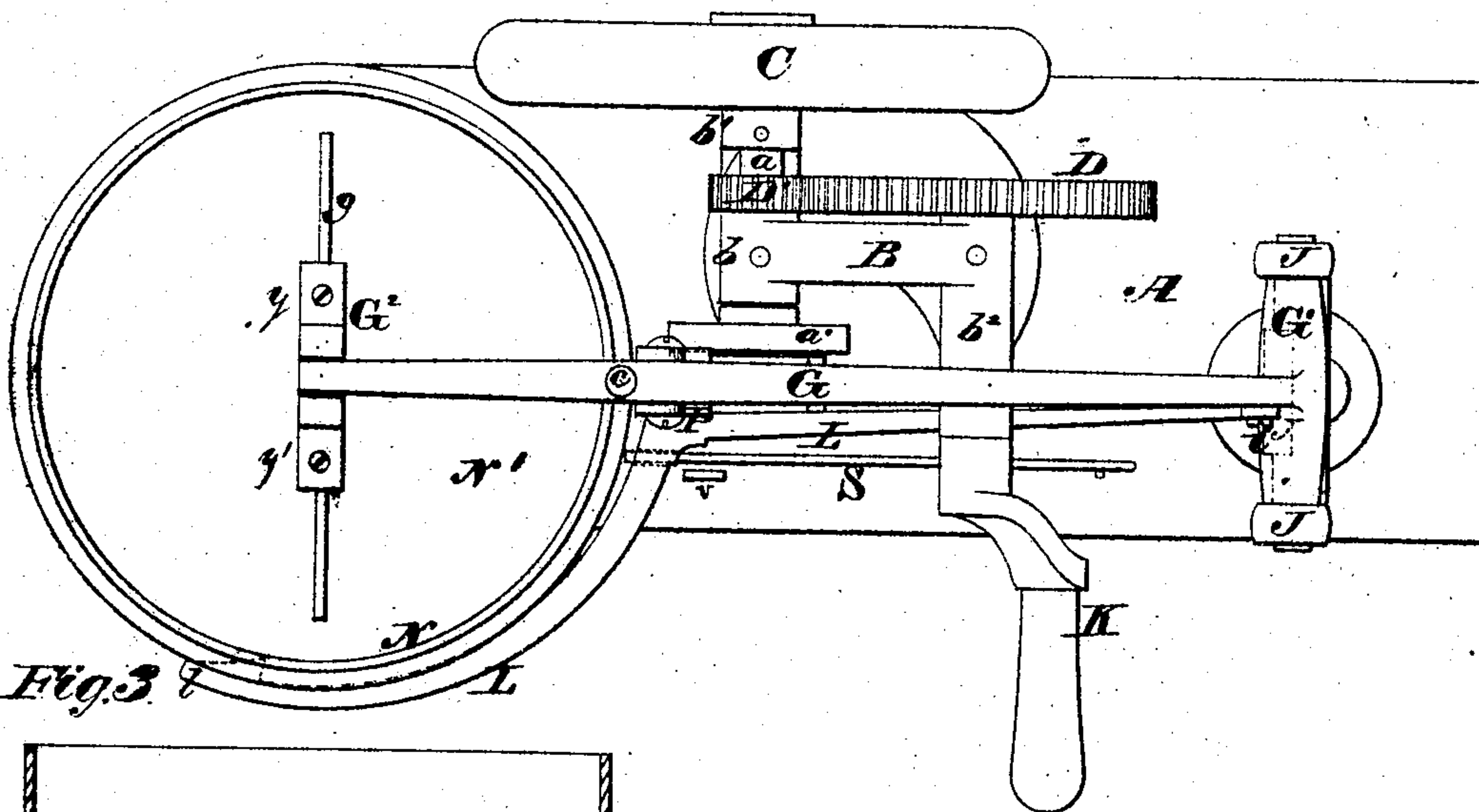
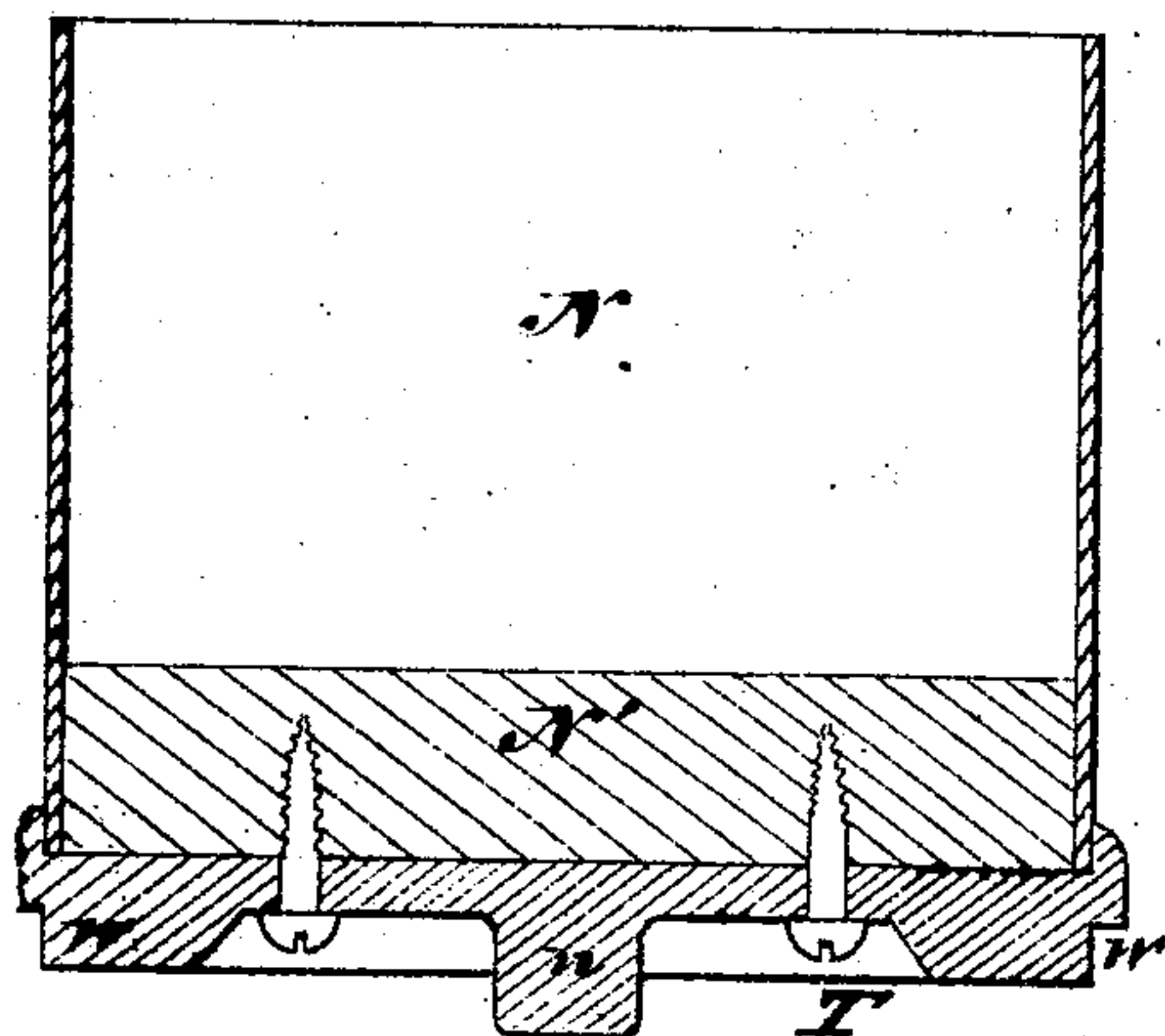


Fig. 3



Inventor  
A. R. Silver  
Mar. Lewis & Daughters

Witnesses.  
R. Campbell  
J. Campbell



# UNITED STATES PATENT OFFICE.

ALBERT R. SILVER, OF SALEM, OHIO, ASSIGNOR TO HIMSELF AND JOHN DEMING, OF SAME PLACE.

## IMPROVEMENT IN MEAT AND VEGETABLE-CUTTERS.

Specification forming part of Letters Patent No. 117,003, dated July 11, 1871.

*To all whom it may concern:*

Be it known that I, ALBERT R. SILVER, of Salem, in the county of Columbiana and State of Ohio, have invented a new and Improved Meat and Vegetable-Cutter; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a side elevation of the machine, showing the meat-tub in section. Fig. 2 is a top view of the machine. Fig. 3 is a diametrical section through the meat-tub.

Similar letters of reference indicate corresponding parts in the several figures.

This invention relates to certain improvements on machines which are designed for chopping meat and vegetables, wherein an intermittently-rotating tub is employed in conjunction with a chopping-knife, which is applied to a vibrating arm. My improvements relate to the construction of the bearings for the journals of the driving mechanism and knife-arm; also to the construction of the knife-carrying arm; also to the stand to which said arm is pivoted; also to the manner of raising said knife-carrying arm and supporting it out of the way when it is desired to remove the meat-tub; also to a mode of mounting and supporting the removable rotary meat-tub; and also to a feed-arm and a mode of holding this arm in contact with a ratchet-face at the base of the meat-tub; all of which will be hereinafter explained.

The following description of my invention will enable others skilled in the art to understand it.

In the accompanying drawing, A represents the base or stand on which the several parts of the machine are supported, and B represents a cast-metal frame which is bolted upon the stand A and constructed with journal-bearings, *b*, *b*<sup>1</sup>, and *b*<sup>2</sup>, properly arranged to receive and support a driving-shaft, *d*, carrying a spur-wheel, D, a fly-wheel shaft, *a*, carrying a fly-wheel, C, a pinion spur-wheel, D', and a crank-disk, *a'*. The driving-shaft *d* has a hand-crank, K, keyed on it, by means of which the wheels D D' and shaft *a* can be rotated. To the wrist-pin *r*, on the face of the disk *a'*, the lower end of a pitman-rod, P, is attached, the upper end of which is pivoted to a curved knife-arm, G, by means of a transverse pin, *t*. This pin *t* is annularly grooved to re-

ceive and hold in place a pin, *y*, which is attached to a spring, S, that is secured at one end to the arm G, and at the other end is attached to a thumb-pin, *c*. By pressing on this thumb-pin *c* the spring S will be depressed and its pin *y* will release the pivot-pin *t*, so that the upper end of the pitman can be detached from the knife-carrying arm G. When this detachment is effected the arm G can be thrown up, when it will be held with its knife above the meat-tub N by means of a stop, *v*, as will be hereinafter explained. The knife-carrying arm G, represented in the drawing, Fig. 1, is pivoted to a vertically-flanged bearing-plate, J, by means of trunnions, which bearing-plate receives a vertical standard, J', and is attached thereto by a set-screw, *j*, which passes through a vertical slot made through the bearing-plate J, as indicated by dotted lines, Fig. 1. This vertical slot and the set-screw allow the bearing-plate J to be adjusted vertically to compensate for the wearing away of the knife or the knife-bed, or both. The pivoted end of the knife-arm G has a tubular T-piece, G, formed on it, through which passes a shaft that has its end bearings in the plate J. This presents a wide bearing and prevents lateral displacement of the free end of the knife-arm. The free end of the knife-arm G has a T-piece, G<sup>2</sup>, formed on it, which is adapted to receive and have attached to it a flat knife-blade, *g*, which strikes the wooden block N' of the meat-tub N at every down stroke of the knife-arm G. The knife *g* is secured to said knife-head G<sup>2</sup> by means of set-screws *y y* and bearing-screws *y' y'*, as shown in Figs. 1 and 2. The knife-arm G is curved so that the knife-blade will strike the block perpendicularly or nearly so, as indicated by the drawing, Fig. 1. Should the knife fail to strike the block after using the machine for some time, it can be again properly adjusted by loosening the screw *j* and elevating the bearing J. Near the pivotal end of the knife-arm a feeder, L, is pivoted, as indicated at *i*, which feeder curves downward beneath the driving-shaft *d* and then takes a lateral curve one-third, more or less, around the base portion T of the meat-tub N, terminating in a pawl-hook, *l*. Near the junction of the vertically-curved portion of the feeder L with the horizontally-curved portion thereof the free end of a spring, S, extends through the feeder, said spring being fast-



ened at its other end to the stand A, and arranged in such relation to a stop as to act with an inward pressure and thus press the hooked end of the feeder up against ratchet-teeth *w* which are formed on the base portion of the meat-tub. The vibration of the knife-arm will communicate a reciprocating motion to the feeder, which in its turn gives an intermittent rotary motion to the meat-tub. The meat-tub consists of a cylindrical body, which is fitted into a metal bottom piece, T, on the lower portion of which ratchet-teeth for the feeding-pawl L are formed. The chopping-block N' may be secured in its place by means of screws, as shown in Fig. 3. In the center of the bottom T a cylindrical pin, *n*, is formed, which is received into a flanged socket inserted into the stand A, as indicated in dotted lines, Fig. 1. This centers the tub and keeps it in place, at the same time allowing it to be rotated freely.

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

1. The cast-metal frame A, constructed with elongated bearings *b b*<sup>1</sup> *b*<sup>2</sup> for the shafts of spur-

wheels D D', in combination with the vibrating knife-arm G, substantially as described.

2. The horizontally-flanged T-head formed on the curved knife-arm G, in combination with the knife-blade *g* and the set-screws and supporting-screws *y y'*, substantially in the manner described and shown.

3. The vertically-adjustable bearing J, vibrating knife-arm *g*, and meat-tub N, combined and operating substantially as described.

4. The spring S, thumb-pin *c*, and retaining-pin *y*, in combination with pitman-pivot *t* and knife-arm G, substantially as described.

5. The curved pawl or feed-bar L and its spring S, in combination with the ratchet-wheel *w* on tub N and with the vibrating knife-arm G, substantially as described.

6. The catch or stop *v* on the stand A, in combination with the curved feed-bar, curved knife-arm, and a removable meat-tub, substantially as described.

ALBERT R. SILVER.

Witnesses:

N. A. MORLAN,  
N. B. WATSON.