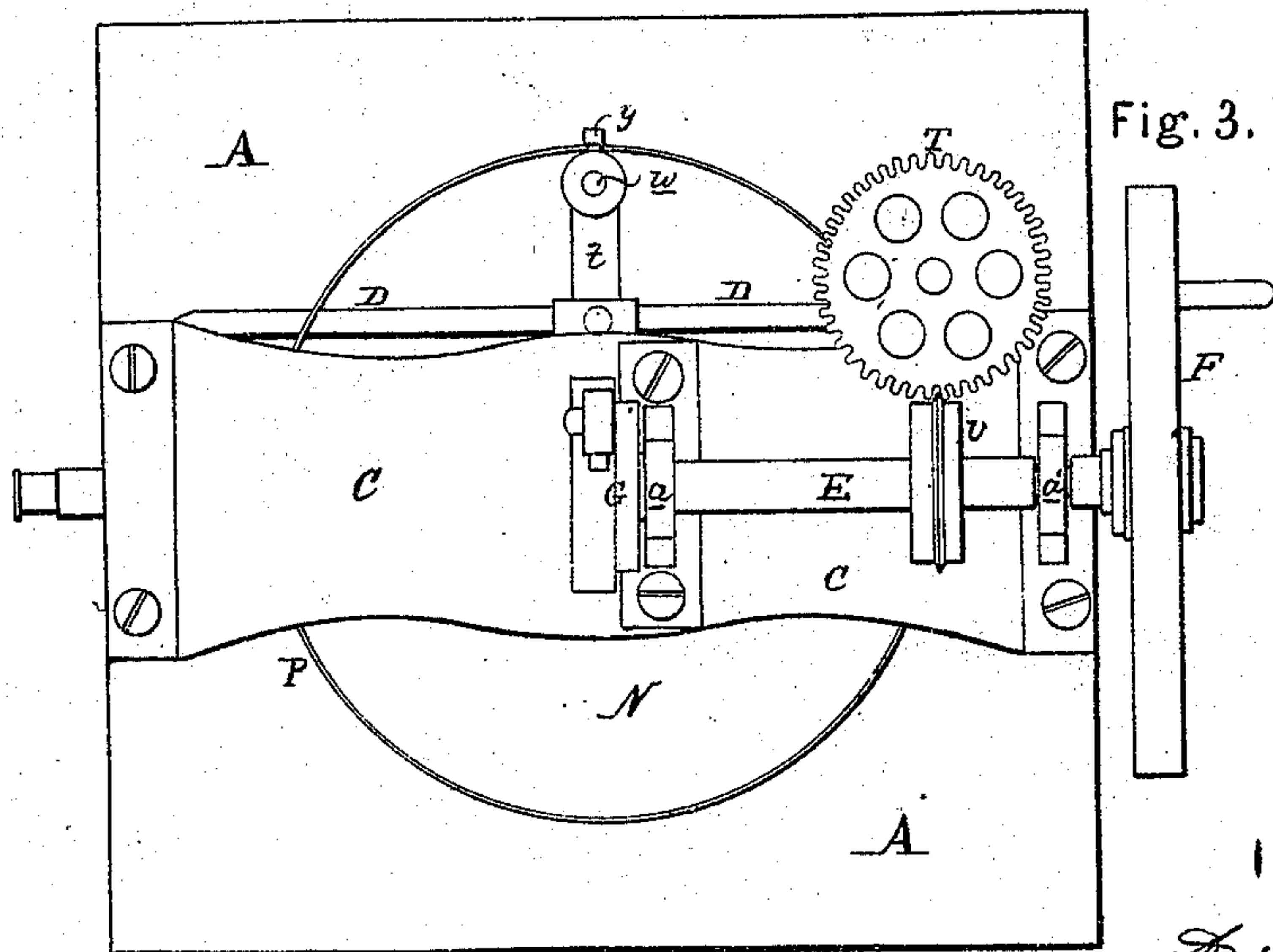
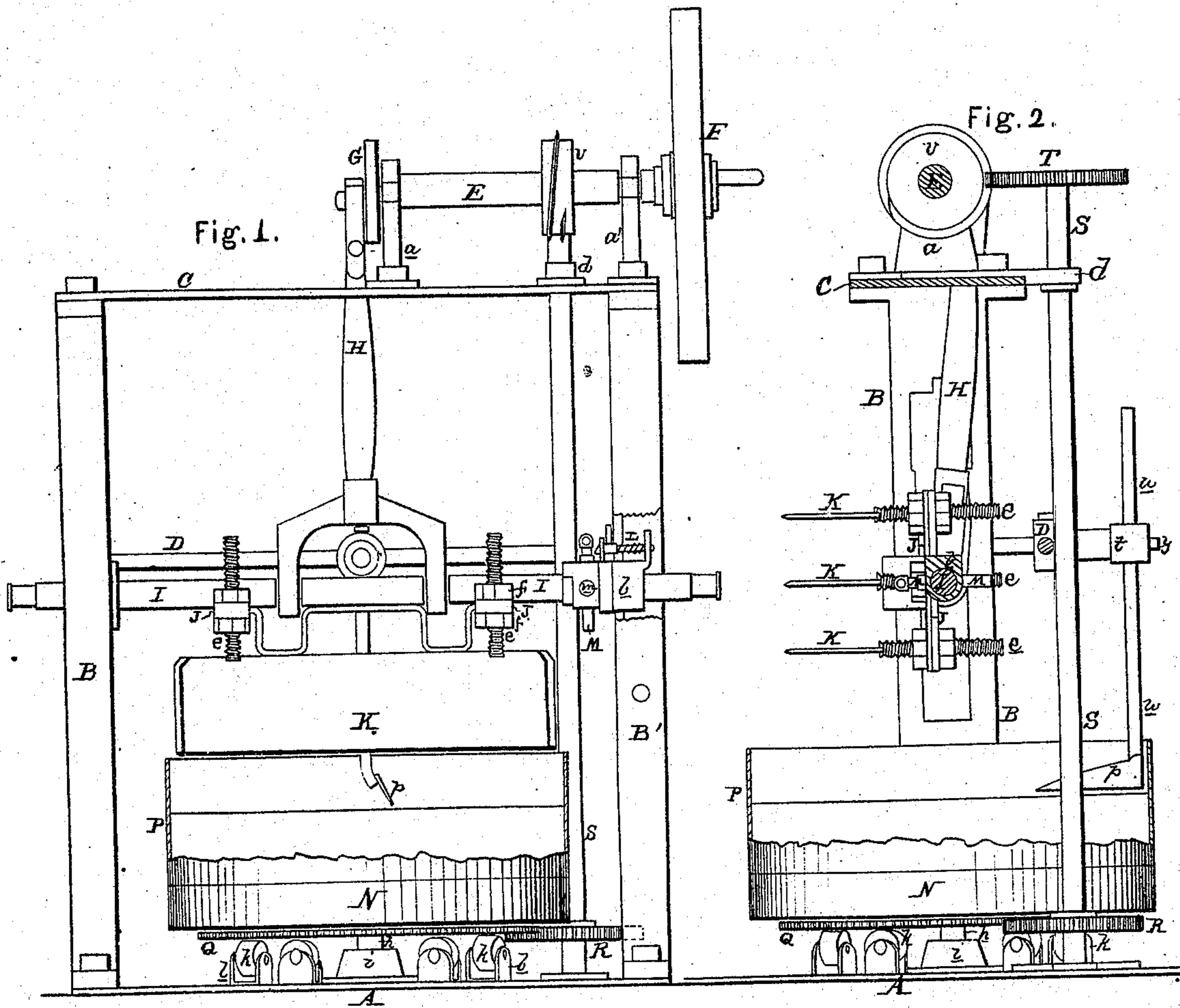


A. Nittinger. Meat-Cutter.

No 34,492.

Patented Aug. 11. 1863.



Witnesses:

H. Albert Steel
Charles E. Foster

Inventor:

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UNITED STATES PATENT OFFICE.

AUGUST NITTINGER, JR., OF PHILADELPHIA, PENNSYLVANIA.

IMPROVED MEAT-CUTTER.

Specification forming part of Letters Patent No. 39,492, dated August 11, 1863.

To all whom it may concern:

Be it known that I, AUGUST NITTINGER, JR., of Philadelphia, Pennsylvania, have invented certain Improvements in Meat-Chopping Machines; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

My invention relates to improvements in that class of meat-chopping machines in which a rotating table or block is combined with reciprocating knives, my improvements, which are fully described hereinafter, having been designed with the view of preserving the edges of the knives in a sharp state as long as possible, and of affording facilities for sharpening the knives.

In order to enable others skilled in this class of mechanism to make and use my invention, I will now proceed to describe its construction and operation.

On reference to the accompanying drawings, which form a part of this specification, Figure 1 is a front view, partly in section, of my improved meat-chopping machine; Fig. 2, a side view, and Fig. 3 a plan view.

Similar letters refer to similar parts throughout the several views.

A is the base-plate of the machine, and to this plate are secured the two frames B and B', which are connected together by the cross-plate C and cross-bar D. E is the main driving-shaft of the machine and turns in suitable boxes, *a* and *a'*, secured to the plate C, one end of the shaft being furnished with a handled fly-wheel, F, or with an ordinary strap-pulley, the other end having a crank-wheel, G, to the pin of which is connected the upper end of the rod H, the forked lower end of the latter being connected to the cross-head I, on the opposite ends of which are suitable blocks, *b*, arranged to slide in and to be guided by the frames B and B'. Two plates, J J, are secured to the under side of the cross-head I, and through each plate pass three screws, *e e e*, the middle screw also passing through the cross-head. Each screw is furnished with two nuts, *f* and *f'*—one below and the other above the plate, as seen in Fig. 1—and to each pair of screws is secured a steel blade, K, the lower edge of which is sharpened. One of the sliding blocks, *b*, is furnished with a spring-latch, L, the point

of which enters a groove in a pin, M, the latter passing through the block, as well as through the cross-head, and preventing the same from turning in the sliding blocks, thereby maintaining the blades in a vertical position. When the edges of the blades have to be sharpened, the latch L is moved back from the pin M, the latter is withdrawn, the cross head turned until the blades assume the horizontal position shown in Fig. 2, where they are retained by passing the pin M through a horizontal opening, *m*, in the block and through the cross-head. The blades are now conveniently situated for being sharpened by suitable instruments. Beneath the blades is a circular block, N, of hard wood, which is surrounded by a hoop, P, of sheet iron or other suitable material, projecting above the upper surface of the block. To the under side of the block is secured a cog-wheel, Q, which has a central pin, *h*, turning in a suitable step, *i*, the wheel itself resting on rollers *k k*, which revolve in suitable bearings, *l l*, secured to the base-plate A. Into the cog-wheel Q gears a pinion, R, secured to an upright shaft, S, which turns at the bottom in the base plate A and at the top in a plate, *d*, secured to the plate C, the top of the shaft being furnished with a worm-wheel, T, into the teeth of which gears the worm U. To a projection, *t*, on the cross-bar D a rod, *w*, is so fitted as to be readily adjusted vertically and secured after adjustment by a set-screw, *y*, the lower end of the rod being provided with an inclined blade, *h*, the tendency of which is to turn over the meat deposited on the block within the hoop P and to direct the meat toward the center of the said block. The blades K are so adjusted by the nuts *f* and *f'* of the screws *e* that when at the downward limit of their movement their sharp edges shall be as close as possible to the block without being in actual contact therewith. As the blades reciprocate, the block is turned through the action of the worm U, worm-wheel T, shaft S, pinion R, and cog-wheel Q, so that every particle of the meat, stirred as it is by the inclined blade P, is acted on by the blades K, and chopped into the desired small pieces.

The most important feature of my invention is the intermittent rotary motion of the block, which is effected by the peculiar form of the thread on the worm U. On reference to Fig. 1 it will be seen that the thread there seen is ar-

ranged spirally, but that the portion exhibited in Fig. 3 is straight or in a plane at right angles to the axis of the driving-shaft E. When the spiral portion of the thread is in gear with the teeth of the worm-wheel T, the latter, and consequently the block N, will be turned, but when the portion of the thread is in gear with the wheels the block will be stationary. The straight and spiral portions of the thread are so arranged that the block N is stationary when the blades are approaching toward and ascending from the said block, the rotary motion of the latter taking place when the blades are approaching to and descending from the limit of their upward movement.

The object of this arrangement is to prevent that scraping action of the block and its contents on the blades which soon renders them dull and ineffective as a means of chopping the meat.

I claim as my invention and desire to secure by Letters Patent—

1. Any convenient number of reciprocating blades K and the block N, when such an in-

termittent rotary motion is imparted to the said block that the latter is stationary when the blades are acting on the meat.

2. The worm U, having a thread partly straight and partly spiral, as described, for the purpose of imparting an intermittent rotary motion to the block N through the medium of the gearing herein described, or any equivalent to the same.

3. The cross-head I, with its blades K, when the said cross-head is arranged to turn in the sliding blocks b, substantially as set forth, for the purpose herein specified.

4. The grooved retaining-pin M, passing through the sliding block b and cross-head I, in combination with the spring-latch L.

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

AUGUST NITTINGER, JR.

Witnesses:

HENRY HOWSON,
JOHN WHITE.