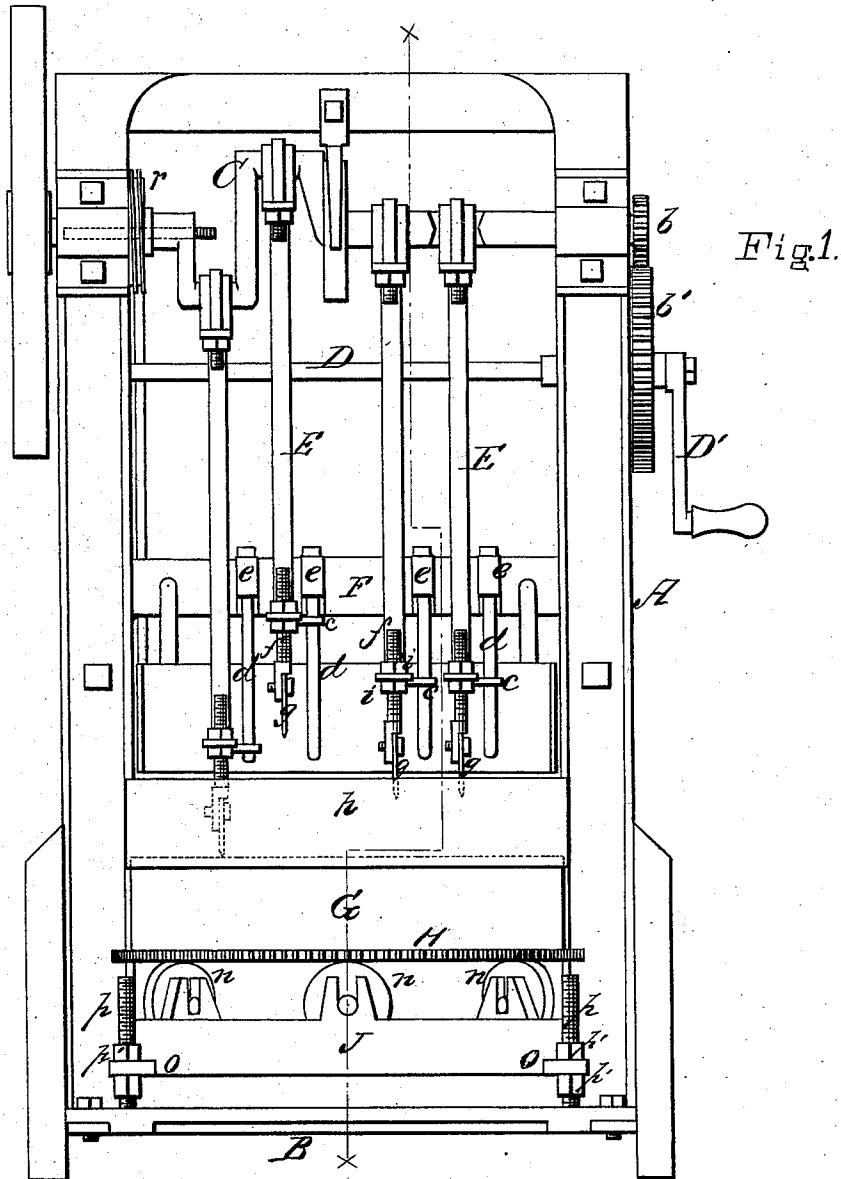


J. A. FRENZEL.

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No. 154,791.

Patented Sept. 8, 1874.



WITNESSES

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Geo. E. Upham.

INVENTOR

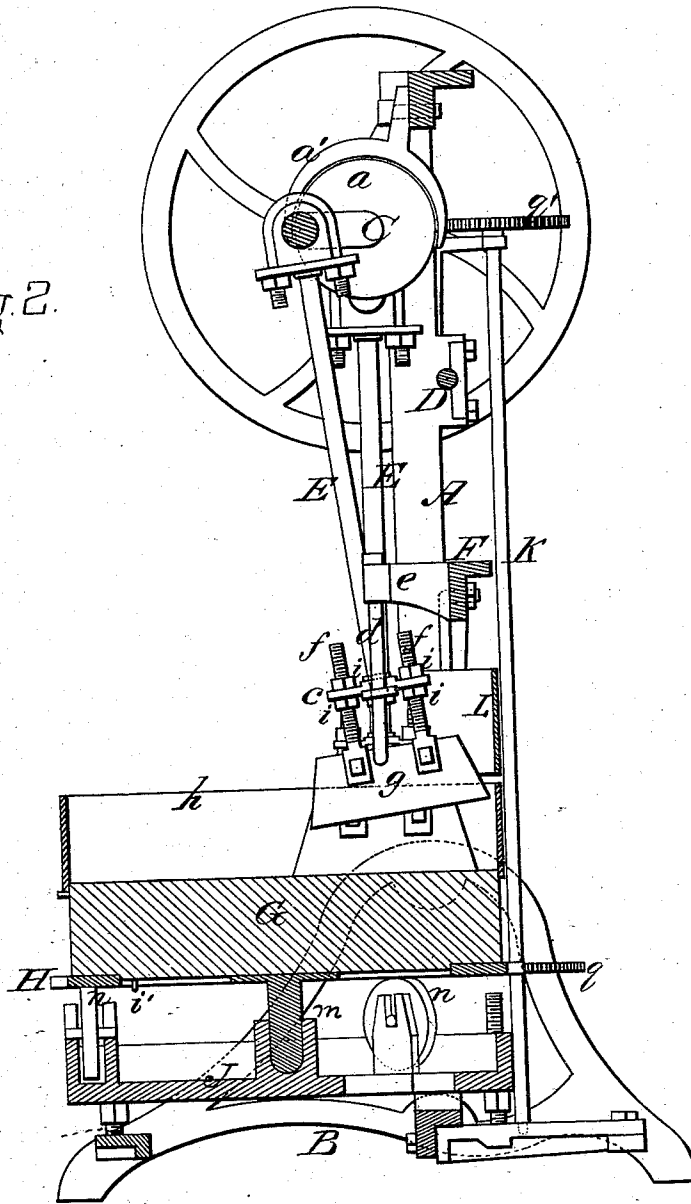
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Fig. 2.



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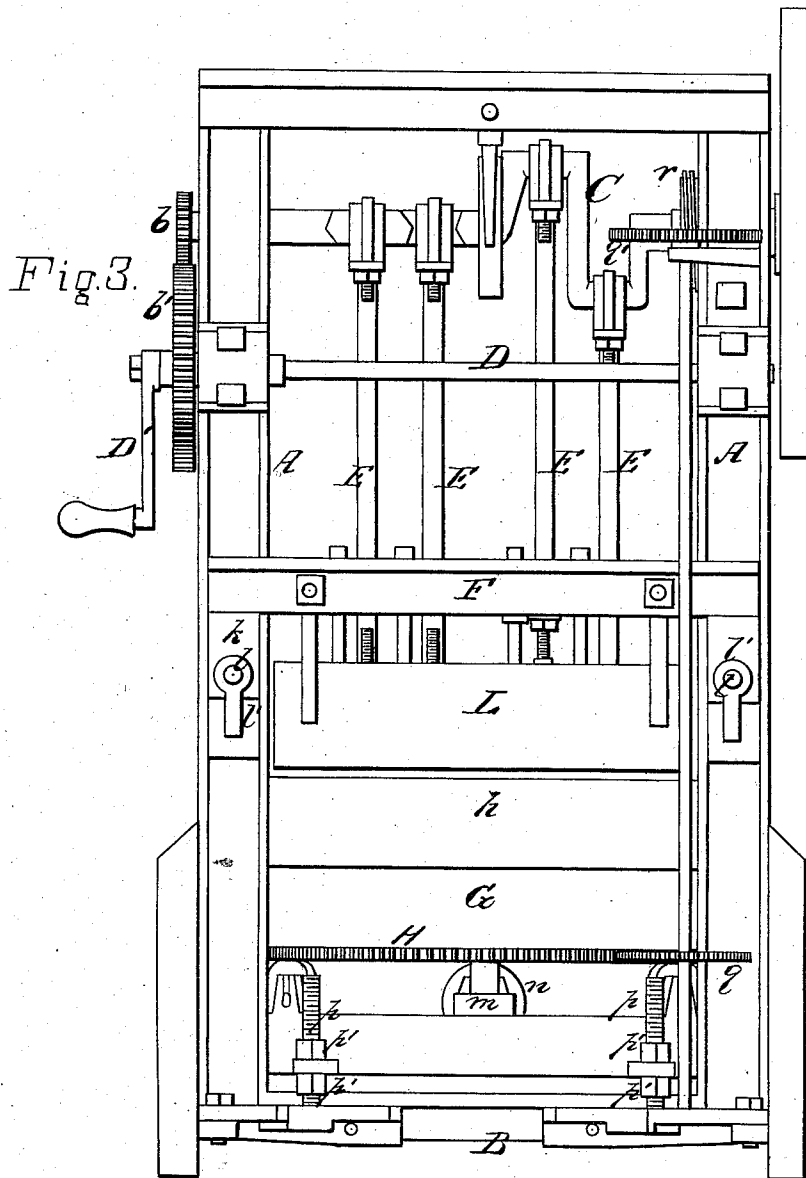
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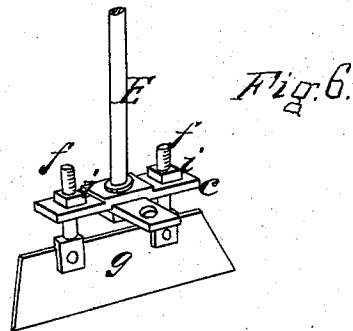
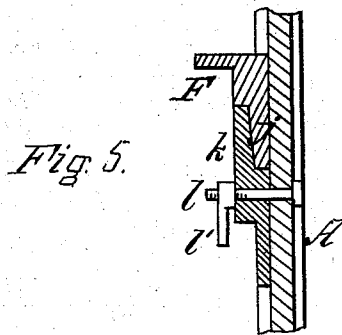
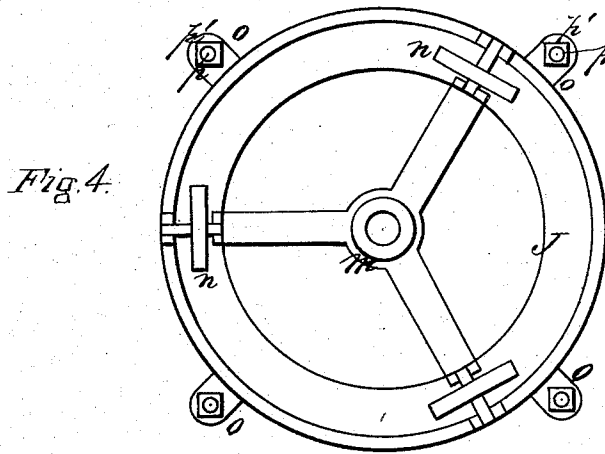
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UNITED STATES PATENT OFFICE.

JOHN A. FRENZEL, OF SAUK CITY, WISCONSIN.

IMPROVEMENT IN MEAT-CHOPPERS.

Specification forming part of Letters Patent No. 154,791, dated September 8, 1874; application filed July 3, 1874.

To all whom it may concern:

Be it known that I, JOHN A. FRENZEL, of Sauk City, in the county of Sauk and State of Wisconsin, have invented a new and valuable Improvement in Meat-Choppers; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a representation of a front view of my meat-chopper. Fig. 2 is a vertical sectional view, and Fig. 3 is a rear view, of the same. Figs. 4, 5, and 6 are detail views.

This invention has relation to machines for chopping meat, wherein a number of reciprocating cutting-blades are employed in combination with a rotating chopping-block. It consists mainly in the employment of guide-rods, in combination with cutters applied to rods, which are actuated by cranks, whereby I obtain a rocking as well as an up-and-down motion of the cutters, and thus produce drawing cuts on the meat, and at the same time avoid jar and concussion. It also consists in a ring platform for the chopping-block, which is adjustably applied to posts, whereby the said block can be conveniently raised or depressed, as circumstances require. It also consists in a horizontal cross-bar carrying the cutter-guides, and secured to the uprights of the frame by means of wedges and clamps, whereby the cutters are readily detached from their guides when it is desired to adjust them or remove them to be sharpened. It finally consists in adjustably securing the cutters to cross-heads on the lower ends of their rods, so that they can be set to work properly and readily removed for sharpening them, as will be hereinafter explained.

In the annexed drawings, A designates an upright rectangular frame, which is supported upon a stand, B; and C designates a horizontal crank-shaft, which has its end bearings in journal-boxes located near the upper end of frame A, and which is constructed with a circular plate, *a*, at the middle of its length, on the periphery of which disk a fixed

yoke, *a'*, bears, and thus steadies the crank-shaft and prevents vibration thereof. One end of shaft C carries a balance-wheel, and the other end a pinion spur-wheel, *b*, with which latter a large spur-wheel, *b'*, engages. This wheel *b'* is keyed on a horizontal shaft, D, carrying a hand-crank, D', by which the machine is operated. In practice the wheels *b b'* will be hooded to prevent their teeth from being clogged with meat, &c. Each one of the cranks of shaft C has applied to it a rod, E, which has secured rigidly to its lower end a T-shaped cross-head, *c*, through one of the arms of which a guide-rod, *d*, passes freely, which rod is rigidly secured at its upper end to a bracket, *e*, on a horizontal cross-bar, F. The other two arms of cross-head *c* receive loosely through them two screws, *f f*, which are secured rigidly to the cutter *g*, and which receive nuts *i* above and below said arms. The cutters *g* are thus detachable from their cross-heads *c*, and they are also adjustable up or down thereon. The bar F, to the brackets of which the guide-rods *d* are secured, is applied to the grooved backs of the frame uprights by means of wedges *j* formed on its ends, which wedges are fitted into said uprights and secured by means of clamps *k* and screws *l*, on which latter handled nuts *l'* are applied. By loosening the nuts *l'* the bar F can be detached from the frame A and the cutters *g* adjusted or removed conveniently. G designates the chopping-block, which is of circular form, and constructed with a flange, *h*. This block G is removably applied inside of the raised rim of a horizontal spur-wheel, H, and prevented from turning thereon by means of a stud, *i'*. The center of the wheel H has its bearings in a socket, *m*, rising centrally from a platform, J. The outer portion of wheel H is supported on anti-friction wheels *n*, which are applied to the rim of the platform J. This platform J is supported on the base or stand B by means of four screws, *p*, which pass freely through ears *o*, and receive nuts *p'* on them above and below these ears. The platform is thus adjustable, and the block G can be readily raised and depressed. Wheel H engages with a spur-wheel, *q*, on a vertical shaft, K, at the back of frame A, which shaft carries on its upper end a spur-wheel, *q'*, which

engages with a worm-wheel, *r*, on the crank-shaft C. The chopping-block G thus receives slow rotation when the cutters are at work. L designates a guard or shield, which is hung from the cross-bar F, for the purpose of preventing the escape of meat from the block G during the chopping operation.

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

1. Guide-rods *d*, in combination with cutters *g*, which are actuated by a crank-shaft, C, through the medium of rods, substantially as described.

2. A circular platform for the chopping-block G and spur-wheel H, in combination

with the screw-posts *p* and nuts *p'*, substantially as described.

3. The cross-bar F, carrying guides *e*, in combination with wedges *j* and clamps *k*, substantially as described.

4. Choppers *g*, connected to cross-heads *c* by means of screws *f* and nuts *i*, substantially as described.

In testimony that I claim the above I have hereunto subscribed my name in the presence of two witnesses.

JOHN ADAM FRENZEL.

Witnesses:

PAUL LACHMUND,
JACOB YEIDTZ.