F. B. FISH.

Meat-Chopping Machine.

No. 218,869. Patented Aug. 26, 1879.

Fig. 1.

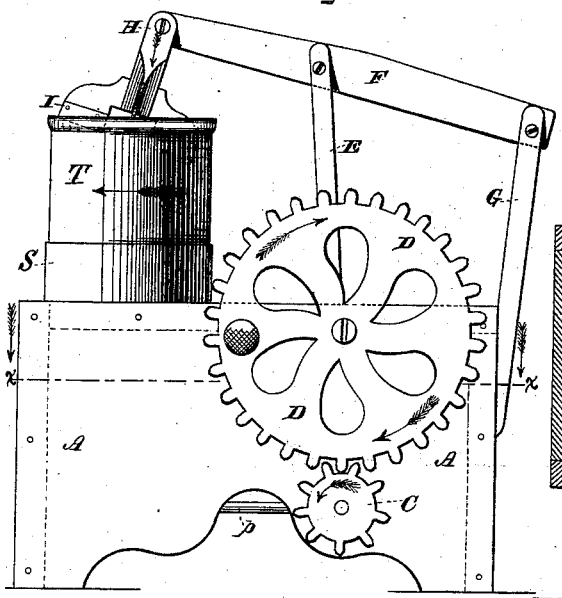


Fig. 2.

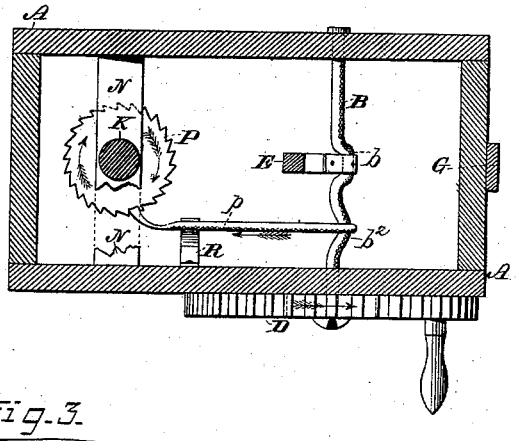


Fig. 3.

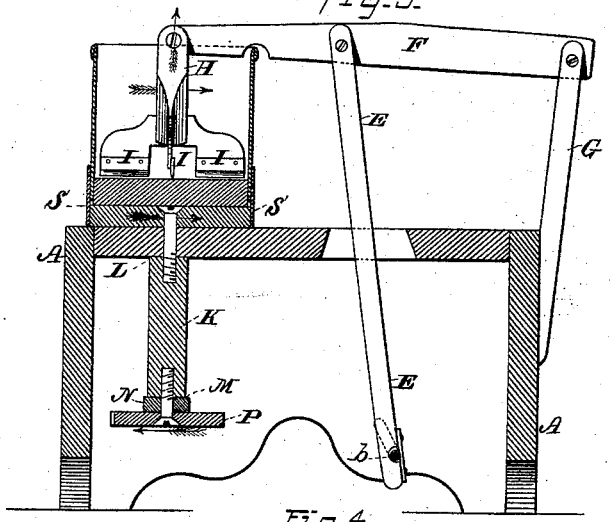
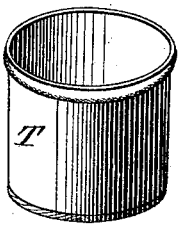


Fig. 4.



WITNESSES:

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UNITED STATES PATENT OFFICE

FRANK B. FISH, OF MANCHESTER, NEW HAMPSHIRE.

IMPROVEMENT IN MEAT-CHOPPING MACHINES.

Specification forming part of Letters Patent No. **218,869**, dated August 26, 1879; application filed February 12, 1879.

To all whom it may concern:

Be it known that I, FRANK B. FISH, of Manchester, in the county of Hillsborough and State of New Hampshire, have invented certain new and useful Improvements in Meat-Chopping Machines, of which the following is a specification.

This invention relates to certain improvements in that class of machines for chopping, hashing, or mincing meat in which a reciprocating cutter-knife or series of knives, arranged to operate in connection with a rotating vessel for containing the meat, is employed; and it has for its object to simplify the construction of the parts, and furnish a cheaper and more effective apparatus than heretofore, and one that is sure in its operation and not liable to get out of order.

To this end my invention consists in the combination, with a double-crank shaft journaled in a suitable frame, of a pitman secured to one of the cranks, and adapted to operate an oscillating lever carrying a rod to which the cutter or cutters are attached, and a pawl secured to the other crank and adapted to engage and operate a ratchet-wheel secured to the lower end of a vertical shaft, to the upper end of which is secured a carrier adapted to receive and rotate, at proper intervals, the vessel which contains the meat, the crank-shaft being provided with suitable gearing, by which motion may be imparted to it.

In the drawings, Figure 1 represents a side elevation of my improved apparatus; Fig. 2, a horizontal sectional view on the line *x x* of Fig. 1, and Fig. 3 a longitudinal vertical section of the apparatus. Fig. 4 is a perspective view of the meat-holding vessel detached.

The letter A represents a frame of suitable construction, consisting, in the present instance, of a rectangular casing. This frame or casing may be made of any desired material, but, on account of cheapness and convenience, is preferably made of cast metal.

The letter B represents a double-crank shaft, extending transversely across the frame, and journaled in opposite sides thereof, said shaft passing through the frame at one end, upon which is mounted a pinion, C, which intermeshes with a driving gear-wheel, D, by which motion is imparted to it. To the crank *b* of said shaft is pivoted the lower end of a pitman, E, the upper end of which is pivoted to an oscillating lever, F, fulcrumed in the upper end of a standard, G, rising from the rear of the frame A. The forward end of said standard has pivoted to it a beam, H, to the lower end of which are secured one or more cutting-knives, I.

The letter K represents a vertical shaft extending through a bearing, L, in the upper part of the frame A, and a bearing, M, in a transverse bar, N, extending across said frame below. To the lower end of said shaft is secured a ratchet-wheel, P, with which is adapted to engage the forward end of a pawl, *p*, the rear end of which is pivoted to the crank b^2 on the crank-shaft B. Said pawl *p* passes through and is held in a spring-guide, R, secured to the frame, which serves to hold the pawl to the ratchet-wheel, and its advance movement sets said ratchet one step forward at each reciprocation of the pawl.

To the upper end of the vertical shaft K is secured a cylindrical carrier, S, which is adapted to receive the rotating cylindrical vessel T, in which the meat is held, and subject it in the proper varying positions to the action of the cutters. Said rotating cylinder is adapted to be detachably secured in the carrier, so that it can be removed and readily replaced when desired, for the purpose of cleaning. In Fig. 4 this cylindrical vessel is shown as removed from the carrier S, into which, when in use, it fits so closely as to be held in place by friction.

What I claim is—

In an apparatus for cutting, hashing, or mincing meat, the combination, with the double-crank shaft, of a pitman secured to one of the cranks of said shaft, and to an oscillating lever above, carrying the cutting-tool, and a pawl secured to the other crank, and adapted to engage and operate a ratchet-wheel on a vertical shaft, having mounted on its upper end a carrier adapted to receive and rotate the vessel containing the meat, substantially as and for the purposes specified.

In testimony that I claim the foregoing I have hereunto set my hand in the presence of the subscribing witnesses.

FRANK B. FISH.

Witnesses:

RICHARD J. P. GOODWIN, M. D.,

JOHN ALFRED MAJEAN, M. D.