(No Model.)

J. SHEARGREN.

MEAT CHOPPING MACHINE.

No. 478,647. Patented July 12, 1892.

Fig. 1.

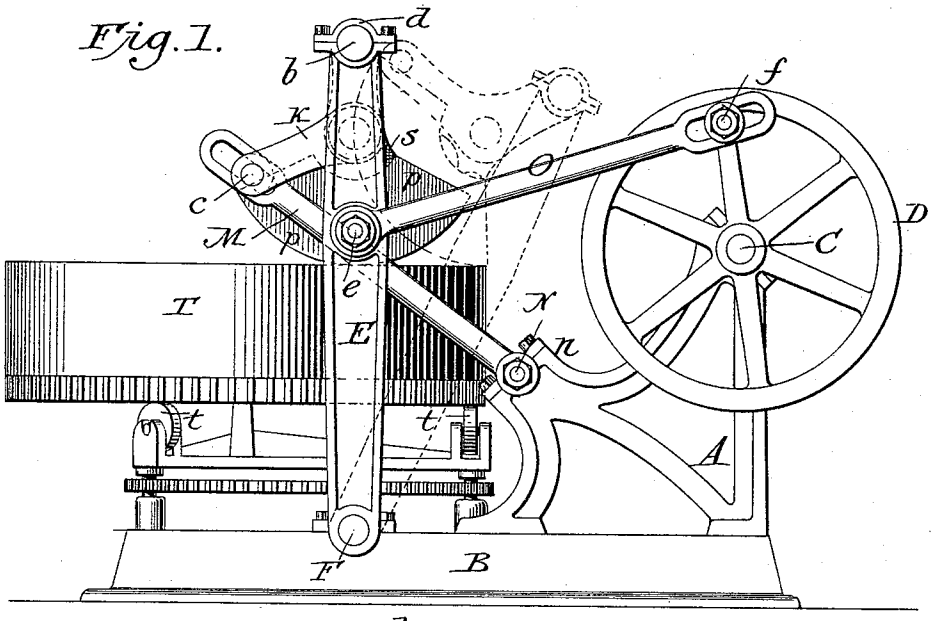


Fig. 3.

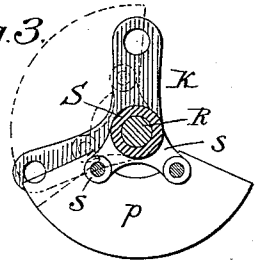


Fig. 2.

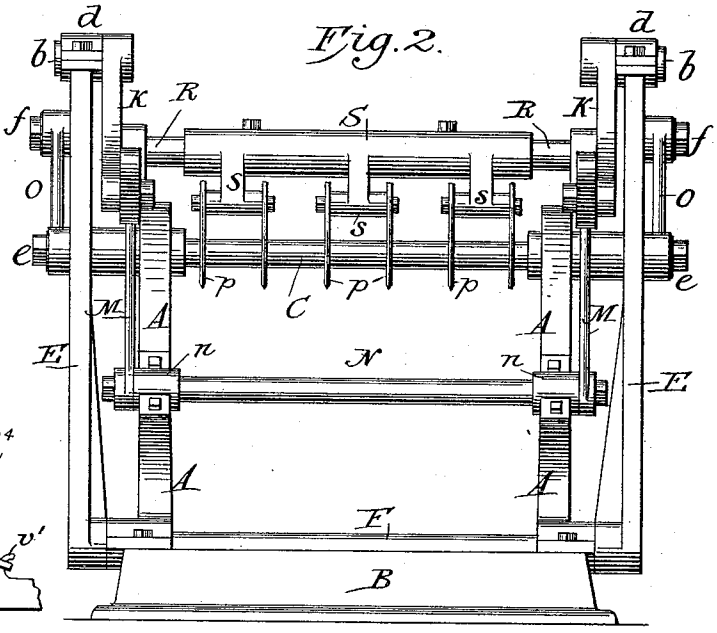
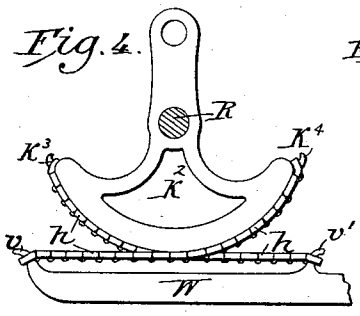


Fig. 4.



Witnesses.
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C. M. Brooke.

Inventor;
John Sheargren,
by his attorneys.
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UNITED STATES PATENT OFFICE.

JOHN SHEARGREN, OF BURLINGTON, IOWA.

MEAT-CHOPPING MACHINE.

SPECIFICATION forming part of Letters Patent No. 478,647, dated July 12, 1892.

Application filed August 20, 1891. Serial No. 403,257. (No model.)

To all whom it may concern:

Be it known that I, JOHN SHEARGREN, a citizen of the United States, residing at Burlington, in the county of Des Moines and State of Iowa, have invented certain new and useful Improvements in Meat-Chopping Machines, of which the following is a specification.

My invention relates to meat-chopping machines of the class having rocking knives cooperating with a rotating chopping-block, as exemplified, for instance, in Letters Patent No. 445,823, granted to me February 3, 1891.

The object of my invention is to provide a cheap, simple, and effective machine, which end I attain by the novel organization of instrumentalities hereinafter specified.

In the accompanying drawings, Figure 1 represents a side elevation of my improved machine, and Fig. 2 a rear elevation thereof with the chopping-block and its appurtenant mechanism removed. Fig. 3 represents a cross-section through one form of the knife-carrying devices, and Fig. 4 a modification thereof.

Unless otherwise indicated the parts are of usual approved construction.

The driving end of the machine I call the "front" and the chopping-block end the "rear."

The drawings show supporting standards or frames A, mounted upon opposite sides of one end of a bed-plate B, on which a driving-shaft C is mounted. Crank-wheels D, fixed on opposite ends of this shaft, are connected by crank-pins *f* with pitmen O, connected by intermediate wrist-pins *e* with radius-bars E, secured at bottom on a shaft F, rocking in suitable bearings in the bed-plate and connected at their upper ends with wrist-pins *b* on one arm of elbow-levers K, rocking in bearings *d* on the radius-bars E. The opposite arms of each of these elbow-levers are connected by wrist-pins *c* with links M on a shaft N, rocking in bearings *n* on the standard A. A rod R, connecting the central portions of the elbow-levers K, supports a sleeve S, provided with a series of brackets *s*, to which a series of arc-shaped knives P are secured. By this mode of construction the knives are adapted to be adjusted around the shaft in any desired relation and may be secured thereon by suitable clamping-screws P′. Their relation to the chopping-block might also be varied by making the pitmen O or links M adjustable longitudinally in well-known ways. This organization also admits of the knives being turned up out of the way around the shaft by detaching the upper arm of the elbow-levers K from the radius-bars E, as shown in dotted lines in Fig. 3.

The elbow-levers K constitute a means for connecting the shaft R of the knife-carrying sleeve S with the rocking radius-bars E. The links M are pivoted at *n* to a stationary part of the frame, and they extend between the radius-bars E and across them, their upper ends being connected to the elbow-levers in rear of the radius-bars. By this arrangement the knives are rocked easily and efficiently and are held down to their work by very simple mechanism.

Fig. 4 shows a modification of the apparatus delineated in Fig. 3, in which arc-shaped holders K^2 are substituted for the elbow-levers above described, chains *h* being substituted for the links M. These chains are secured to horns K^3 K^4 on opposite ends of each arc-shaped or sector holder, which they partly encircle in opposite directions, and are secured at their other ends to horns *v v′* on stationary side bars W, the rocking movement of the knives being given by the reciprocation of the radius-bars, as above described.

Dotted lines in Fig. 1 illustrate the movements of the knife, which need not be further described.

The chopping-block T is shown as supported upon friction-rollers *t*, vertically adjustable by mechanism such as shown in my patent above mentioned, which need not be further described, as it constitutes no part of the invention herein claimed.

I claim as of my own invention—

1. The combination, substantially as hereinbefore set forth, of a chopping-block, a bed-plate or frame, radius-bars pivoted at their lower ends to the bed-plate and rocking in parallel vertical planes, a knife-carrying sleeve, a rod extending through the sleeve, connections between said rod and the upper ends of the radius-bars, a crank-wheel, pitmen connected to the crank-wheel and connected to the radius-bars between their piv-

otal connections with the main frame and their connection with the knife-carrying sleeve, and connections between the knife-carrying sleeve and a stationary part of the main frame.

2. The combination, substantially as hereinbefore set forth, of a rotary chopping-block, a bed-plate or frame, radius-bars pivoted to the bed-plate at their lower ends and rocking in parallel vertical planes, a knife-carrying sleeve, a rod extending through the sleeve, elbow-levers secured to the rod and pivotally connected with the radius-bars at their upper ends, links pivotally connected with the rearwardly-extending arms of the elbow-levers and pivotally connected with a stationary part of the frame, a crank-wheel, and pitmen connecting the crank-wheel with the rocking radius-bars between their upper and their lower ends.

3. The meat-chopping machine hereinbefore described, consisting of the combination of a bed-plate, a standard or supporting-frame, a crank-shaft mounted therein, crank-wheels fixed on opposite ends thereof, radius-bars vibrating in parallel planes on pivots on the main frame, pitmen connecting the crank-wheels and radius-bars, elbow-levers connected with the latter at one end, links connecting the frame and elbow-levers, a rod connecting these levers with each other, a knife-carrying sleeve mounted on the rod, knives carried thereby, a chopping-block traversed by the knives, and mechanism for rotating the chopping-block, the combination being and operating substantially as hereinbefore set forth.

In testimony whereof I have hereunto subscribed my name.

JOHN SHEARGREN.

Witnesses:
NILS ANDERSON,
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