2 Sheets—Sheet 1.

R. DAHL.

Meat-Chopping Machine.

No. 211,711. Patented Jan. 28, 1879.

FIG. 1

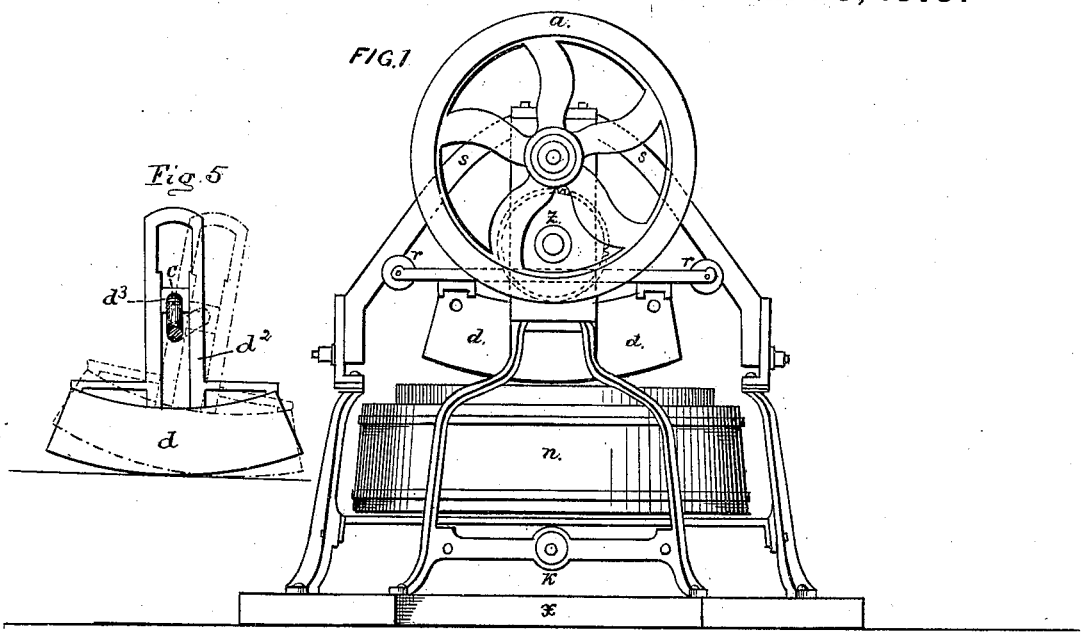
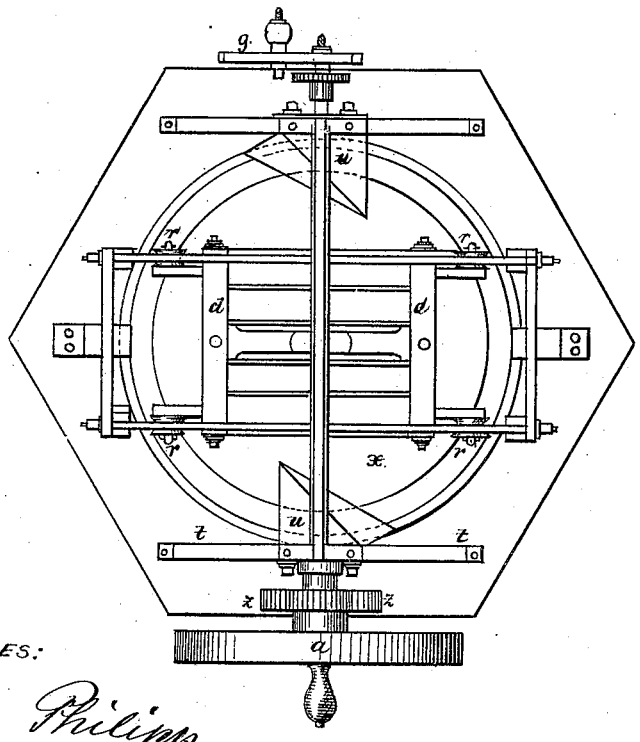


Fig. 5

FIG. 2.



WITNESSES:

Ludwig Philipp

Ernst Franz

INVENTAR:

Rudolph Dahl.

2 Sheets—Sheet 2.

R. DAHL.

Meat-Chopping Machine.

No. 211,711. Patented Jan. 28, 1879.

FIG. 3.

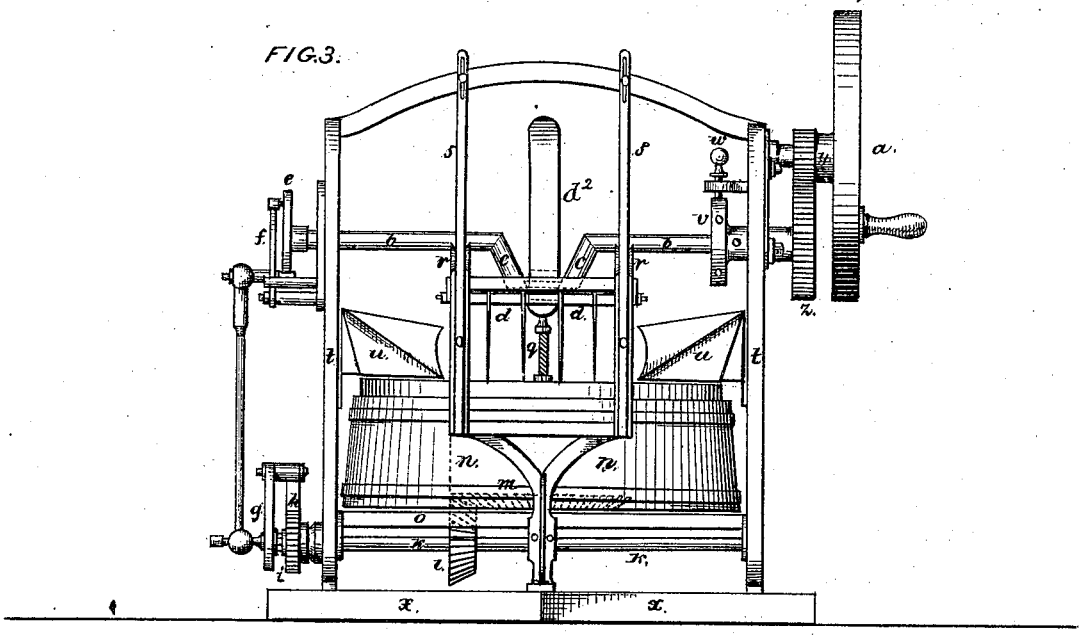
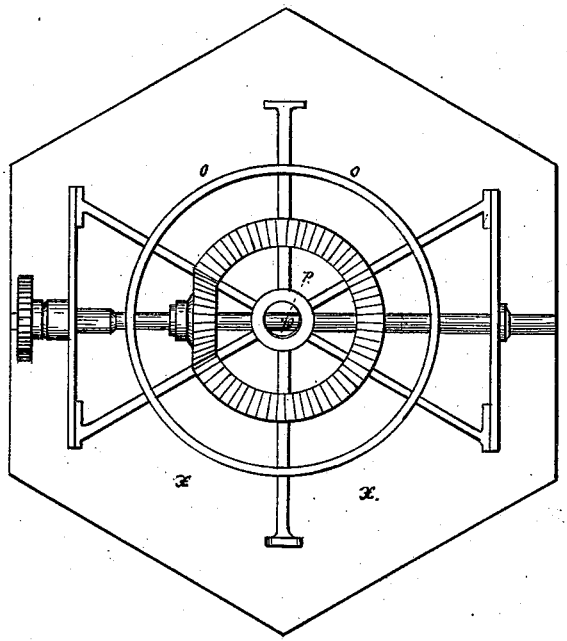


FIG. 4.



WITNESSES

Ludwig Philipp
Emil Franz

INVENTOR.

Rudolph Dahl

UNITED STATES PATENT OFFICE.

RUDOLPH DAHL, OF BERLIN, PRUSSIA, GERMANY, ASSIGNOR OF ONE-HALF HIS RIGHT TO WILHELM HUMPERT, OF SAME PLACE.

IMPROVEMENT IN MEAT-CHOPPING MACHINES.

Specification forming part of Letters Patent No. **211,711**, dated January 28, 1879; application filed May 28, 1878.

To all whom it may concern:

Be it known that I, RUDOLPH DAHL, of the city of Berlin, in the Kingdom of Prussia, German Empire, have invented a new and useful Improvement in Meat-Chopping Machines, of which the following is a specification:

Heretofore, among the devices for mincing meat, neither the usual chopping-machines nor the steam cleaving-knives have satisfied the requirements of butchers, for the former tear the meat asunder by wasting juices and giving it a bad appearance, whereas the latter are applicable only to making inferior sorts of sausage-meat, as, owing to their deficient construction, the meat is continually mixed up with wood particles.

The present invention has for its object to overcome these objections; and consists in the construction and combination of parts hereinafter described and claimed.

In the accompanying drawings, in which similar letters of reference indicate like parts, Figure 1 is a front elevation of a meat-chopping machine constructed according to my invention. Fig. 2 is a plan view thereof. Fig. 3 is a side elevation of the same. Fig. 4 is a detail view of the shaft and gearing for rotating the meat tub or block. Fig. 5 is a detail view of the mechanical movement or means for giving a rocking or oscillating movement to the cutter or knife frame.

The letter *a* denotes a fly-wheel having a hand-crank, which serves to give motion to the main driving-shaft *b*. The latter has a central cranked or bent portion, *c*, which engages with a six-bladed chopping-knife, *d*, and causes the latter to rock when the shaft is rotated. The frame carrying the knives, also termed a six-bladed chopping-knife, is provided with a vertical slotted arm, d^2, and a sliding block, d^3, in which the cranked portion *c* of the shaft is journaled. It will thus be apparent that when the shaft *b* is rotated the block d^3 will slide up and down in the slotted arm d^2, and will enable the cutter-frame and attached knives to receive a rocking or oscillating motion, the knives being, of course, curved to enable this movement to take place. To the end of the crank-shaft *b* is attached a disk, *e*, which, with each rotation, sets in motion an upper lever, *f*, that again imparts a simultaneous motion to the lower lever, *g*. A pawl, *h*, carried by said lever *g*, engages with the ratchet-wheel *i*, secured to the lower shaft, *k*, for the purpose of turning the latter. To the shaft *k* a bevel-gear wheel, *l*, is fastened, which is in gear with a second wheel, *m*, attached to the under side of the block *n*. Thus, with each revolution of the crank-shaft *b* the block is intermittently rotated. The block *n* has friction-rollers, which run on a circular track, *o*, and has in the middle, at the bottom, a guide-pivot, *p*. In the middle of the top of the block is arranged a bolt, *q*, with a counter-nut, which bolt is so regulated that when the block is turning, the knife *d* rests upon the bolt and does not touch the block.

To keep the knife always in the middle of the block, it is made to slide in guide-bars *s s* by means of rollers *r*. Larger machines are on each end furnished with two rollers and two guide-bars and a connecting-link.

To the standards *t t*, located at both sides of the knife, are fastened shovels *u u*, which conduct the meat under the knife, at the same time turning it over. Inside of the standards, near one of the bearings, the crank-axle is furnished with a disk, *v*, having apertures for locking or securing the machine by means of a pin, *w*, when the meat is to be removed or the machine is to be cleaned.

The machine is made easily transportable, and can be made use of in any place whatever, as it requires no support of masonry-work as a foundation, a base-plate, *x*, of wood being sufficient as a support for the machine.

In steam cleaving-knives, the meat-block is continually revolved by means of a Hindley's screw; but as by these means the block is pressed against the knife, the edges of the latter must be ground to a nearly obtuse angle to prevent them from breaking out. When so ground they will cause the heating of the meat and injure the block, so as to cause many wooden particles to mix with the meat, which thus cannot be employed for making a good and desirable sausage.

As the block of my machine turns by jerks only, or intermittently, the block is prevented

from injury, and consequently the meat from being mixed with wooden particles, while the meat itself is not heated by the knives so ground.

With the former machines a workman is always required to turn over the meat, and to guide it under the knife, whereas this work in my machine is done by the shovels, which, together with the device for securing the machine when the latter is to be cleaned, prevent all fatal accidents as much as possible.

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

1. In a meat-chopper, the combination of a rocking multiple-bladed chopping-knife or cutter frame, having a slotted arm and a block fitted to slide in the latter, with a revolving shaft journaled in a supporting-frame, and having a cranked portion turning in said sliding block, substantially as and for the purpose set forth.

2. The rocking multiple-bladed-knife frame, having friction-rollers at the ends thereof, and the curved guides or tracks *s*, in combination with the base-frame, rotating block or table, and the driving-shaft, as and for the purpose set forth.

3. The combination of the rotating block or table *n*, having an adjustable bolt, *q*, with the rocking knife, as and for the purpose set forth.

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

RUDOLPH DAHL.

Witnesses:

LUDWIG PHILIPPS,

EMIL FRANZ.