May 2, 1933. A. JAHN 1,906,609

MEAT CHOPPER

Filed March 21, 1929

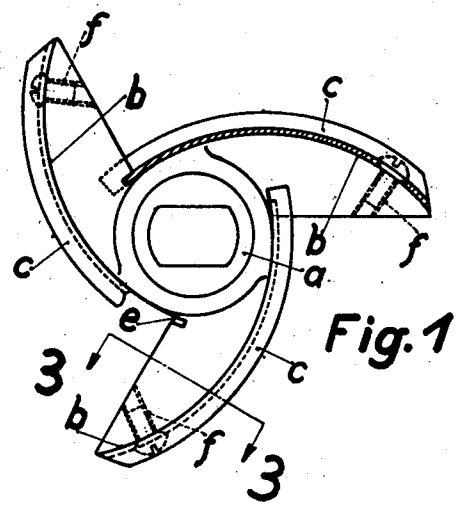


Fig. 1

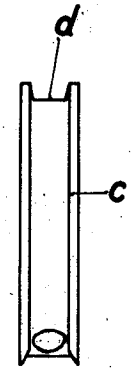


Fig. 4



Fig. 2



Fig. 3

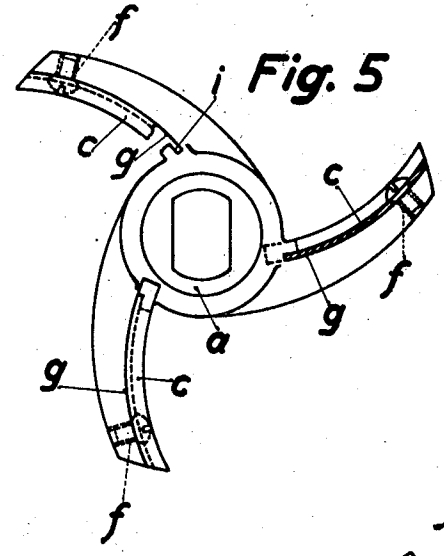
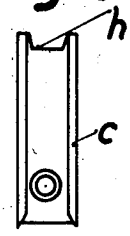


Fig. 5

Fig. 6



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Patented May 2, 1933 1,906,609

UNITED STATES PATENT OFFICE

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MEAT CHOPPER

Application filed March 21, 1929, Serial No. 348,913, and in Germany September 4, 1928.

This invention relates to a meat chopper in which several curved knife blades are arranged on a knife body. The characteristic feature of the invention consists in that each knife blade can be fixed under tension on the knife body and is secured against shifting.

This object may be attained in two manners, either in that the radius of curvature of the knife blades curved in outward direction is slightly greater than the radius of curvature of the supporting face for each blade on the knife body, or in that, the knife blades being curved in inward direction, the radius of curvature of each knife blade is slightly smaller than the radius of curvature of the supporting surface for the knife blade on the knife body the knife blades engaging by means of a recess at one of their ends with a corresponding recess of the knife body and being fixed at their other end by means of a screw, by the tightening of which the tension and at the same time the securing of the knife blades in their position are effected.

Two embodiments of the invention are illustrated by way of example in the accompanying drawing in which:

Figs. 1 to 4 show one embodiment of the invention in Fig. 1 in elevation, in Fig. 2 in top plan view and in Fig. 3 in cross section on line 3—3 of Fig. 1, the complete knife body with knife blades being shown. Fig. 4 shows in top plan view a single knife blade.

Figs. 5 and 6 illustrate the second form of construction, Fig. 5 showing the knife body with knife blades in elevation, Fig. 6 showing a knife blade in top plan view.

Referring to Figs. 1 to 4, the hub *a* of the knife body has for instance three outwardly curved, i. e. convex supporting surfaces *b* for the similarly curved knife blades *c*.

According to the invention the radius of curvature of the inner surface of the knife blade is slightly greater than the radius of curvature of the supporting face *b* of the knife body *a*. The knife blades *c* have at one end a recess *d* by means of which they can be secured in a corresponding recess *e* of the knife body *a*, to be finally fixed by means of a fixation screw *f* screwed in near the other end. By the tightening of the fixation screws *f* the knife blades are rigidly clamped on the curved supporting faces of the knife body owing to the difference in curvature and secured at the same time against accidental loosening.

The form of construction shown in Figs. 5 and 6 differs from the form of construction described merely in that the knife blades *c* are curved in inward direction, i. e. are concave, the radius of curvature of their outer surface being slightly smaller than the radius of curvature of the concave supporting faces *g* of the knife body. Also in this form of construction the knives *c* have each a recess *h* on the inner end designed to be pushed into an according recess *i* of the knife body, whereupon the knife blades are fixed on their other end by means of fixation screws *f* and secured in position under tension owing to the different radii of the curvatures.

In the apparatus shown in Figs. 1 to 4 the knives when rotating have the tendency to push the material for chopping permanently in outward direction, whereby the cutting effect is unfavourably influenced in a certain degree.

This is not the case in the apparatus shown in Figs. 5 and 6, the knives of which, when rotating have the tendency, owing to their concave form, to push the material for chopping towards the centre, whereby the cutting effect is improved.

I claim:

1. A meat chopper, comprising in combination a knife body, a plurality of curved radial arms extending from said knife body having each a curved supporting face, and a curved knife blade detachably secured to each of said supporting faces the radius of said supporting faces differing from that of said curved knife blades.

2. A meat chopper, comprising in combination a knife body, a plurality of radial arms extending from said knife body having each a curved supporting face terminating in a groove at its inner end forming a nose extending parallel to the supporting

face and each arm having a screw threaded hole near its outer end, removable curved blades one on the supporting face of each of said arms engaging at its inner end in the slot and under the nose of its arm, having each a hole near its outer end corresponding to the screw threaded hole in its arm, two lateral extensions on each of said blades bearing one on each side against said body, and fixation screws extending one through the hole of each of said blades and engaging in the screw threaded hole in one of said arms to secure said blade on its respective arm and regulate the tension of said blades.

3. A meat chopper as specified in claim 2, in which the supporting face of each radial arm is convex and the radius of curvature of the inner surface of each knife blade is slightly greater than the radius of curvature of the corresponding supporting face on the curved radial arm.

4. A meat chopper as specified in claim 2 in which the supporting face of each radial arm is concave and the radius of curvature of the outer surface of the knife blade is slightly smaller than the radius of curvature of the corresponding supporting face of the curved radial arm.

In testimony whereof I affix my signature.

AUGUST JAHN.