PATENT SPECIFICATION

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COMPLETE SPECIFICATION.

Grating Machine with Removable Horizontal Grating Drum.

We, KUNZ WEIDLICH, of No. 8, Wodanplatz, Nuremberg, Free State of Bavaria, of German nationality, and the BING WERKE, vorm. GEBRÜDER BING A.-G., of No. 16, Blumenstrasse, Nuremberg, Free State of Bavaria, Germany, a corporation duly organized under the German law, do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly described and ascertained in and by the following statement:—

In the grating machines of known construction the axle of the grating drum is supported only at one side, said axle being mounted in a cast iron apron of the casing which has a long hub. According to the invention the removable grating drum has cross bars at both ends and is mounted upon an axle which is journaled on the one hand in the apron of the casing and on the other hand in a cross bar hingedly arranged at the open side of the casing. The double journaling of the grating drum and of the axle of the same presents the advantage that the axle is prevented from bending and that unilateral pressures on bearing and the rapid wear of the journal hub resulting from these pressures are avoided and that further instead of the cast iron apron with a long guide hub an apron can be used which is pressed from sheet iron and much cheaper than the cast iron aprons.

The invention has further for its object to improve the feeding of the material to be grated which is no longer fed from above by means of a box-shaped hopper and which is not compressed perpendicularly to the grating drum but fed to said grating drum at an angle to the circumference of said drum with the aid of a lateral widely projecting gutter with inclined bottom plate. This arrangement has the advantage that the residue of the material to be grated, for instance the peels of potatoes, may be easily removed. The arrangement permits further to provide in the bottom plate of the inclined gutter channels for conducting the grated material into the casing.

A form of construction of the machine is shown on the accompanying drawing wherein:—

Fig. 1 is an elevation, and

Fig. 2 a plan view of the machine.

The grating machine consists essentially of the apron *a* of pressed sheet iron on which the casing *b* is mounted and of the removable grating drum *c*. The axle *e* made in one piece with the crank handle *d* is journaled on the one hand in the short hub *f* of the apron *a* and on the other hand in a cross bar *g* hingedly fixed at the open side of the casing *b*. The cranked end *h* of this cross bar is designed to be pushed over the edge of the casing which is rolled up. The axle is secured in its position by a collar *i* and an annular groove *k* with which a catch *l* engages. The drum has cross bars *m* and *n* at either end. An aperture similar to that of a socket wrench stamped out of the cross bar *m* fits over the collar *p* of the axle which has two projections *o* so that the drum can be easily mounted in the machine and drawn along by the axle. The cross bar *n* has a round hole for the reception of the corresponding end of the axle. On the casing *b* a laterally projecting gutter *q* is mounted which is open at the top and which has a bottom plate *r* which is downwardly inclined in such a manner that the prolongation of said plate forms an acute angle α to that tangent of the circumference of the drum which traverses the point of intersection *x* of the line along which the main pressure is directed and of said circumference of the drum. In this manner a much better grating action is ensured than with machines with vertical charging hoppers. The material

[*Price* 1/-]

is pressed against the circumference of the drum by means of a pusher *s* made from sheet iron so that it can be easily manipulated. Into the bottom plate *r* of the gutter *q* one or several channels *t* are pressed which facilitate the outflow of the grated material which settles at the end of the gutter. By said channels passages of larger cross section are provided between the operative line of the circumference of the drum and the end edges *u* of said channels than exist between the circumference of the drum and the end edge *v* of the bottom plate.

The machine can be taken to pieces rapidly as it is merely necessary to turn the catch upward in order to unclasp the cross bar *g*, whereupon the drum *c* may be removed through the one end and the axle *e* together with the crank handle *d* through the other end.

Having now particularly described and ascertained the nature of our said invention and in what manner the same is to be performed, we declare that what we claim is:—

1. Grating machine with removable horizontal grating drum characterized in that the grating drum (*c*) which has cross bars (*m*, *n*) at both ends is mounted upon an axle (*e*) journaled on the one hand in the apron (*a*) of the casing and on the other hand in a cross bar (*g*) hingedly fixed at the open side of the casing (*b*).

2. Grating machine with removable horizontal grating drum characterized in that the device for feeding the material to be grated consists of a laterally projecting gutter (*q*) having an inclined bottom plate (*r*) and designed to feed the material to be grated to the drum essentially at an angle to the circumference of said drum.

3. Grating machine as claimed in Claim 2 characterized in that at least one channel (*t*) is pressed into the inclined bottom plate (*r*) through which the grated material which settles at the end of the gutter (*q*) can flow out into the casing.

Dated this 18th day of December, 1922.

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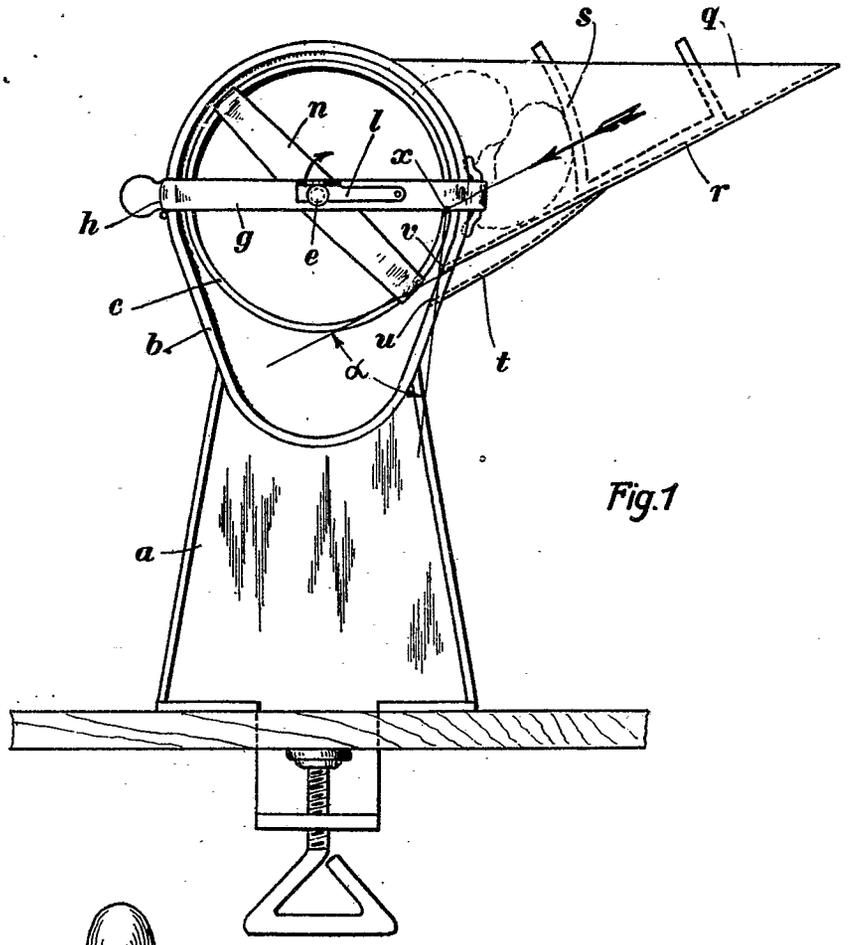

Fig.1

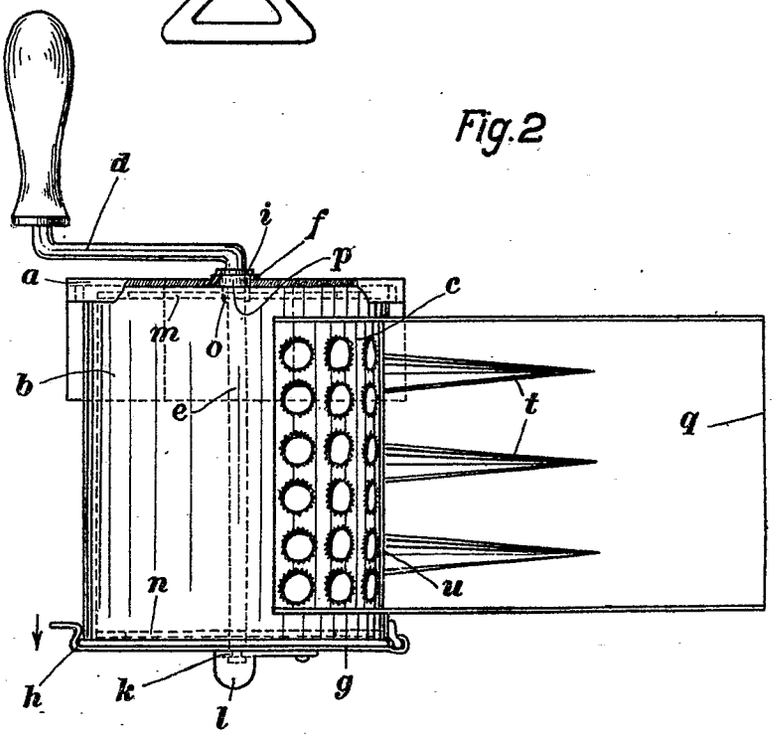

Fig.2

Malby&Sons, Photo-Litho.