Feb. 9, 1926. 1,572,867

C. SABELL

PEA SHELLING MACHINE

Filed Oct. 25, 1922

Fig. 1.

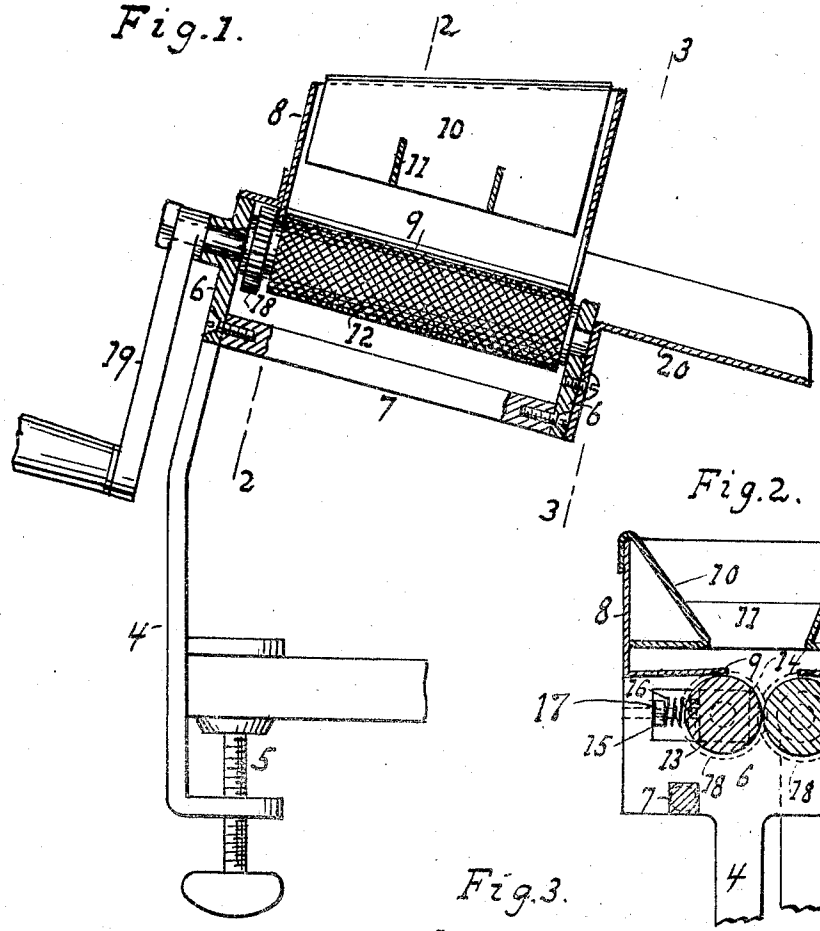
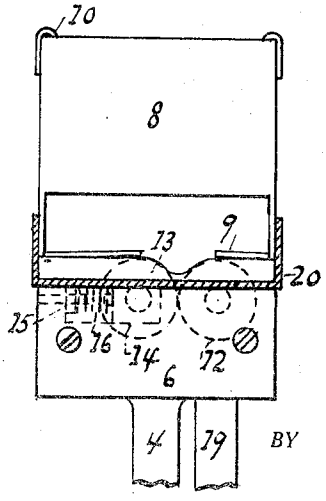


Fig. 2.

Fig. 3.



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CHARLES SABELL, OF JERSEY CITY, NEW JERSEY; AUGUSTA A. SABELL ADMINISTRATRIX OF SAID CHARLES SABELL, DECEASED.

PEA-SHELLING MACHINE.

Application filed October 25, 1922. Serial No. 596,701.

To all whom it may concern:

Be it known that I, CHARLES SABELL, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Pea-Shelling Machines, of which the following is a specification.

This invention relates essentially to a sanitary pea shelling machine in which the pods are positioned end up in a hopper and a pair of rollers located below the hopper grip the ends of the pods thereby squeezing them so as to break them open.

An object of the invention is to incline the rollers so that after the peas drop from the pods they will roll toward the front ends of the rollers and gravitate down an inclined chute.

Another object of the invention is to provide a hopper which is substantially the length of the rollers and divided transversely to prevent the pods from toppling over.

Another object of the invention is to provide a removable hopper so as to permit it to be readily cleaned and to give unhampered access to the casing and its adjacent parts.

Another object of the invention is to provide knurled metal rollers to give positive gripping surface and to journal one of the rollers in sliding spring pressed blocks so that it will be uniformly pushed against the other roller sufficiently to feed pods of varying thickness and not needlessly crush them.

The invention resides more particularly in the novel combinations hereinafter described and claimed, reference being made to the accompanying drawing in which:

Fig. 1 represents a sectional side elevation of a machine embodying this invention.

Fig. 2 is a vertical transverse section taken along the line 2 2 of the same.

Fig. 3 is a similar section taken along the line 3 3 of Fig. 1.

In the drawing the numeral 4 designates a standard which is provided with a clamp 5 whereby the machine can be attached to the edge of a table or other article. On the standard is secured or integral therewith a frame consisting of front and rear transverse sections 6 bolted together by a pair of longitudinal bars 7 located at the lower part of the frame. The upper portion of the frame carries a casing 8 having an open top while the bottom 9 of it has a longitudinal opening extending to the front of the casing, as indicated in Fig. 2. The bottom of the casing slopes toward the sides so that the shelled peas will not get crushed between the actuating parts of the machine.

A hopper 10 having inclined side walls is arranged in the casing. This hopper is hooked over the top of the casing so that it can readily be removed and cleaned. The removable hopper also permits rapid cleaning of the casing and its adjacent parts. The hopper is divided into a number of compartments by means of a series of transverse partitions 11 so that the pods cannot topple.

As indicated in the drawing the frame is set at an angle and a feed roller 12 is journaled in the frame below the casing. A similar roller 13 is journaled in blocks 14 sliding in horizontal slots 15 formed in the frame. Coiled springs 16 are made to push the blocks with the roller toward the other roller and a nut 17 adjusts the spring to bear more or less against the blocks. Each roller is made entirely of metal and its periphery is knurled so that it will positively grip the ends of the pods that are ended up in the hopper. A gear 18 on the shaft of each roller will rotate them in the desired direction and a crank 19 mounted on the roller 12 is employed to actuate the rollers.

The rollers are set at an incline the front portion being lower than the rear hence, when the peas fly from the pods they will gravitate toward an inclined chute 20 and roll into a receptacle not shown. The inclined sides of the hopper guide the pods toward the meeting faces of the parallel feed rollers, where they are gripped by the rollers and the pods are compressed while feeding therebetween. The peas then drop from the pods and roll down the inclination in the space between the bottom of the casing and the lower part of the hopper while the pods fall downward under the rollers onto the table or into a can. The spring pressed roller prevents excessive pressure on the pods but compresses them sufficiently to squeeze the peas therefrom. By having a casing of the same length as the rollers it gives large capacity to feed a large number of pods to the rollers at one time. The hopper is shown in a direct line above with the rollers so that the pods will be in an almost vertical position while being fed to the rollers. As indicated in Fig. 1, the hopper

has longitudinal play room permitting it to be slid to and fro when the pods are inserted to accelerate the movement of the shelled peas.

As indicated in Fig. 2 the sides of the hopper are inclined diverging at the top and narrow at the bottom so that the lower ends of the pods will be guided toward the circumference of the two feed rollers. In practice it is customary to place a bunch of the pods in each compartment end up and the partitions prevent them from toppling over in a longitudinal path while the inclination of the sides of the hopper being substantially about 65 degrees prevents the pods from falling over transversely. The peculiar formation of the compartment thus achieves the following results; it guides the pods toward the meeting faces of the rollers and at the same time prevents them from falling so that they will at all times be almost upright and the bunch in one compartment will be separated from the other or cannot get entangled by the transverse vertically arranged partitions.

I claim:

1. A pea shelling machine comprising a frame, a casing having a sloped bottom with a longitudinal opening carried by the frame, a hopper with inclined sides removably and slidingly connected to the casing for positioning a quantity of pods end up, transverse partitions dividing the hopper into a number of compartments for preventing the pods from toppling over, a pair of rollers arranged at an incline in a line below the opening in the casing to compress the pod shells therebetween, and an inclined chute secured to the frame adjacent to the front ends of the rollers for the peas to roll down from the sloped bottom.

2. A pea shelling machine comprising a frame, a casing having a sloped bottom with an opening mounted on the frame, a hopper with inclined sides removably and slidingly hooked over the top of the casing for positioning a quantity of pods end up, transverse partitions dividing the hopper into a number of compartments for preventing the pods from toppling over each compartment being made to hold a plurality of pods, a pair of parallel rollers substantially the length of the hopper arranged at an incline below the hopper made to compress the pods therebetween, and an inclined chute secured to the frame adjacent to the front ends of the rollers for the peas to roll down from the sloped bottom.

In testimony whereof I have hereunto set my hand.

CHARLES SABELL.