

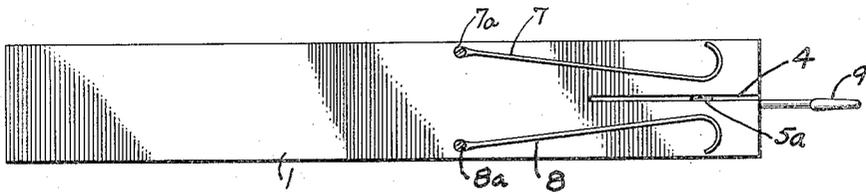
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D. J. WATSON

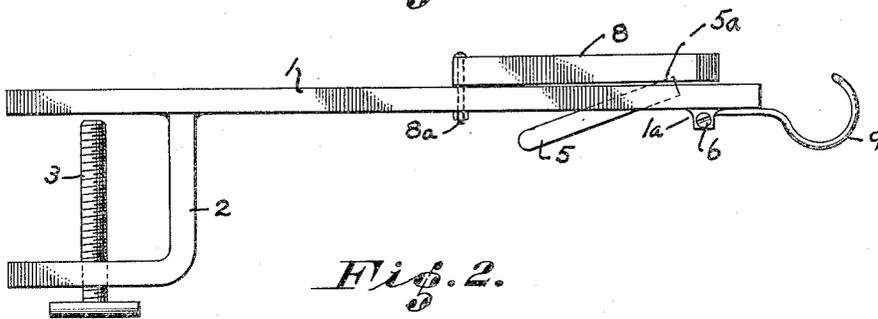
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PEA HULLER

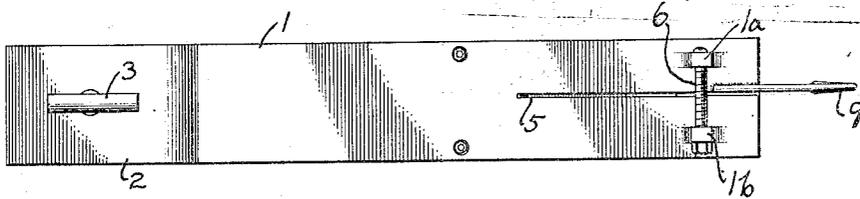
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*Fig. 1.*



*Fig. 2.*



*Fig. 3.*

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PEA HULLER

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3 Claims. (Cl. 130-30)

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This invention relates to a device for hulling or shelling peas or beans which grow in a pod.

An object of the invention is to devise a simple arrangement for removing peas from the pod by a single operation and requiring the use of only one hand.

My invention involves an arrangement providing a guiding channel through which the pod of the pea or bean is moved by one stroke of the hand. A slitting knife is associated with the guiding channel to rip open the pod as it is drawn through the channel and a stripper finger is positioned in line with the guiding channel beyond the slitting blade and in a position to strip the peas or beans from the pod as the pod leaves the guiding channel.

Another object of my invention is to devise a novel structure providing a guiding channel of variable width to conform with the size of the pod being passed through the channel.

Other objects and advantages of my invention will be apparent from the following description. The invention is illustrated in the accompanying drawing in which

Figure 1 is a plan view of the huller; Figure 2 is a side elevational view; and Figure 3 is a bottom view of the huller.

Referring to the drawing, a base member 1, preferably in the form of an elongated plate, provides a flat, horizontal surface over which the pea or bean pod is drawn during the hulling operation. Plate 1 is supported in a horizontal position by any suitable means, such as by the clamp at the rear end of the plate formed by the bracket 2 secured to the plate and a clamping screw 3 having threaded engagement with the bracket and being adapted to clamp the plate to the edge of a table or other suitable fixed support.

The upper surface of the plate 1 forms the bottom wall of the guiding channel through which the pea is moved during hulling operation. The end of the plate is slotted as shown at 4, and a cutting or slitting blade 5 is clamped within the slot 4 by means of a clamping screw 6 engaging bosses 1a and 1b formed on plate 1 on opposite sides of the slot 4. As shown in Figure 2, the slitting blade 5 is mounted at an angle to the horizontal and a tip portion 5a of the blade extends above the upper surface of the plate 1 in a position to slit the pod as it is moved along the surface of the plate.

The side walls of the guiding channel for the pea pod are formed of a pair of wall members 7 and 8 arranged on opposite sides of the slot 4. These wall members are preferably formed as

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relatively narrow elongated strips mounted in vertical planes forming equal angles with the slot 4, to provide a wedge shaped guiding channel for the pods as shown in Figure 1. The tip 5a of the cutting blade 5 is positioned within the narrow end of the guiding channel, and the wall members 7 and 8 are resiliently mounted so that they may be spread apart at the narrow end of the channel to accommodate pods of varying width. One suitable arrangement for resiliently mounting the walls of the tapered channel is to form the wall members 7 and 8 of spring material and to mount these members at their forward ends by means of mounting screws 7a and 8a passing vertically through the base plate 1. It will be understood that normally the wall members 7 and 8 are positioned so that the width of the channel at the cutting tip 5a is less than the width of the smallest pod likely to be hulled.

A stripper hook or finger 9 is mounted at the end of the plate 1, and the tip of the hook is positioned beyond the end of the plate and somewhat above the upper surface of the plate and in line with the guiding channel formed by the side walls 7 and 8. As shown in Figure 2, the tip of the hook is rearwardly inclined for a purpose to be described later.

Operation of the huller is as follows: The pea or bean pods are moved one at a time through the guiding channel and the pods are ripped open on the bottom side as they pass over the cutting tip 5a of the slitting blade 5. As the pea pod moves off of the end of the plate 1 and is drawn past the stripper hook 9, the end of the hook enters the slit in the pod and strips the peas from the pod as the pod continues past the hook. The rearwardly inclined end of the hook 9 causes the peas in the pod to move downwardly through the slit in the pod. As the peas are removed from the pod by the hook 9, they fall downwardly and may be caught in a pan or other receptacle placed immediately below the stripper hook.

While the pods may be moved manually through my huller device, it is obvious that the pods may be passed through the huller by known arrangements of driving rolls and stationary guides.

I claim:

1. A hulling device comprising a base member providing a horizontal surface over which a pod is to be moved, a pair of vertically arranged wall members mounted on the upper face of said base and providing a tapered guiding channel for said pods, the narrow end of said channel being positioned adjacent an edge of said base member, resilient means normally holding said wall members

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at a separation less than the width of a pod to be hulled and permitting spreading of said wall members by a pod passing along said channel, a slitting blade carried by said base member and positioned in the narrow portion of said channel for slitting the bottom part of the pod passing through said channel, and a stripper element secured to said base member adjacent the narrow end of said channel and having a reversely directed hook element extending beyond said edge of said base member and having the reversely directed tip thereof extending above said horizontal surface and in alignment with said guiding channel.

2. A hulling device comprising a base member formed of a flat elongated plate, means at one end of said plate for supporting the same in a horizontal position, the free end portion of said plate being slotted longitudinally thereof with a vertical slot, a slitting blade positioned within said slot and having a cutting edge extending above the upper surface of said plate, clamping means secured to the free end of said plate on opposite sides of said slot for clamping said blade in said slot, a pair of relatively narrow strips of spring-like material arranged upon the upper surface of said plate on opposite sides of said vertical slot to provide a V-shaped guiding channel with the wide end thereof facing the supported end of said plate, means rigidly supporting said strips at the ends thereof which form the wide end of said channel, the free ends of said strips being located on opposite sides of said slitting blade and being free to flex outwardly from said blade, and a stripper element secured to the free end of said plate and having a reversely directed hook element positioned beyond the end of said plate and having the tip thereof extending above the plane of the upper surface of said plate and in alignment with said guiding channel.

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3. A hulling device comprising a base member formed of a flat elongated plate, means at one end of said plate for supporting the same in a horizontal position, a slitting blade carried by said plate adjacent the free end thereof and having a cutting edge extending above the upper surface of said plate at the center thereof, a pair of relatively narrow strips of spring-like material arranged upon the upper surfaces of said plate on opposite sides of the longitudinal center line of the plate to provide a V-shaped guiding channel with the wide end thereof facing towards the supported end of said plate, means rigidly supporting said strips at the ends thereof which form the wide end of said channel, the free ends of said strips being located on opposite sides of said slitting blade and being free to flex outwardly from said blade, and a stripper element secured to the free end of said plate and having a reversely directed hook element positioned beyond the end of said plate and having the reversely directed tip thereof extending above the plane of the upper surface of said plate and in alignment with said guiding channel.

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