The present invention relates to food slicing machines of the type having a carriage with food-carrying platform thereon, which as a unit is reciprocated past a moving blade and more particularly to novel and improved carriage structure affording means to properly position platform plane with respect to blade plane.

It is found in manufacture that although the components of these machines are all made with the same jigs and fixtures, yet when assembled, some adjustment is necessary to true the food-carrying platform with respect to the blade and to have said platform close to the blade. This requires tedious bench work which adds to cost. Similar adjustments are also found necessary after the machine has been in use.

It is therefore the principal object of this invention to provide novel and improved carriage structure, affording easy and positive positioning of the said platform with relation to the cutting blade as is necessary.

A further object hereof is to provide novel and improved carriage structure of the character mentioned, which is easy to use, reasonably cheap to make and efficient in carrying out the purposes for which it is designed.

Other objects and advantages will become apparent as this disclosure proceeds.

In the accompanying drawings forming part of this specification, similar characters of reference indicate corresponding parts in all the views.

Fig. 1 is a lengthwise view of the carriage-side of a food slicing machine of known type, but embodying the teaching of this invention.

Fig. 2 is an enlarged fragmentary section taken at lines 2-2 in Fig. 1.

Fig. 3 is an enlarged fragmentary section taken at lines 3-3 in Fig. 1.

Fig. 4 is an "exploded" view showing in spaced relation and in perspective, the normally nested channel members which comprise the post on which the food-carrying platform is mounted.

Fig. 5 is an enlarged fragmentary section taken at lines 5-5 in Fig. 1, showing the carriage in relation to the cutting blade.

In the drawings, the slicing machine shown designated generally by the numeral 15, includes the rotary disc blade 16, the gage plate 17, on the frame 18 having track rods 19 and 20 on which is slidably mounted a carriage 21. This carriage has a food-carrying platform 22 which is provided with an upright wall 23 to support the side of the food mass which is rested on the platform and pushed towards the plane of the blade with the slidably mounted pusher or prong plate 24, while the carriage 21 is reciprocated so that the food mass pass the cutting blade 16 and be sliced thereby. The slicing machine thus far described, is well known.

This invention concerns itself with novel and improved construction to adjust the distance from the edge 25 of the food-carrying platform to the plane of the blade 16, which distance should be as near as possible so as to achieve good cutting action, and also to properly position the plane of said platform 22 to be true with respect to the blade plane; it being desired that such planes shall be in perpendicular relation. Proper level of the said platform is also advisable.

In assembly of the machine at its manufacture, and as an occurrence during extended use due to normal wear and especially where it is desired to have the platform removable, this invention provides convenient structure to easily accomplish easy setting of the described distance "A" and angle "B," as also the distance "C." To attain these, the post 26 on which the food-carrying platform 22 is mounted, is made of two nesting channel parts 27 and 28, the former extending from the track traveler 29, and the latter having an upper seat 30 which is suitable for the mounting of the platform 22, thereon.

In the side walls of the channel 27 are the opposite slots 31 which are horizontal, while in the side walls of the channel 28 are the opposite vertical slots 32. With channel 27 within channel 28, in nested relation, a shaft 33 is positioned through all four of said slots. This shaft carries a cam 34 which is designed to secure the said channels together in fixed relation, until released by turning the said shaft by use of the knob 35 thereon. When the channels are nested, said shaft is held against longitudinal movement by the collars 36 it carries to journal same on the channel structure. It is to be noted that the vertical slots 32 are open at their lower end, so that channel 28 and the food-carrying platform thereon, as a unit, may be removed from the carriage 21, upon release of the hold of the cam 34. The width of said channels are equal and hold said shaft in slide fit therethrough. It is advisable to have spaced screws in an upper and lower row, projecting from the floor wall of the channel 28, as shown at 37, 38, for the channel 27 to bear against. These screws may be in threaded sockets, so that once set as will be explained, they could not be tampered with from the exterior of the machine.

By adjusting the amount of extension of the screws 37, 38 respectively into the channel 28, distance "A" and angle "B" can be set, and such setting will continue regardless of how many times the upper part of the carriage post 21 with the platform 22 as a unit is removed, baring wear, and of course said screws can be adjusted to retain proper positioning of the platform, if any discrepancy does occur. It is to be noted that regardless of the distance "C" at which the platform 22 is set, distance "A" and angle "B" will not be disturbed. With the cam 34 in unengaged position, the platform on channel 28, may be set so that distance "C" is anything desired, or proper operating distance therefor may be when the upper ends of the slots 32 rest on the shaft 33, which would materially simplify remounting of said removable unit.

This novel structure makes it easy for the user to realign the platform 22 in relation to the blade 16, and is of special convenience for initial assembly during manufacture of the machine, because it eliminates considerable bench work to make things fit right.

This invention is capable of numerous applications and various forms without departing from the essential features herein disclosed. It is therefore intended and desired that the embodiment shown herein be deemed illustrative and not restrictive; reference being had to the following claims rather than to the specific description herein to indicate the scope of this invention.

We claim:

1. In combination, two nested channels; each channel having two opposite walls respectively; each of the two opposite walls of one of the channels having a lengthwise slot; said slots being opposed each of the two opposite walls of the other channel having a slot; said last mentioned slots being opposed one another; the slots of one channel being in angular relation to the slots
in the other channel, a shaft positioned through all said four slots and capable of lateral sliding movement therein and a cam secured on the shaft between the walls of the inner channel, adapted to releasably engage the inner channel and thereby secure the channels together.

2. The combination as defined in claim 1, wherein the mentioned angular relation of the slots is perpendicular.

3. The combination as defined in claim 1, wherein the outer channel has the lengthwise slots.

4. The combination as defined in claim 1, including elements projecting in spaced relation from the outer channel within said outer channel.

5. The combination as defined in claim 1, wherein the outer channel has the lengthwise slots and such slots are open at their bottom end; such slots commencing from the lower edge of said outer channel whereby said outer channel is removable from the inner channel.

6. The combination as defined in claim 1, wherein the shaft is maintained against longitudinal movement when the channels are together and said shaft is through all the slots.

7. The combination as defined in claim 1, including elements projecting in spaced relation from the bottom wall of the outer channel within said outer channel; said elements being threadedly engaged in threaded sockets in said bottom wall; said sockets extending only through part of the thickness of such wall.

References Cited in the file of this patent

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