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CLASSIFYING MEANS

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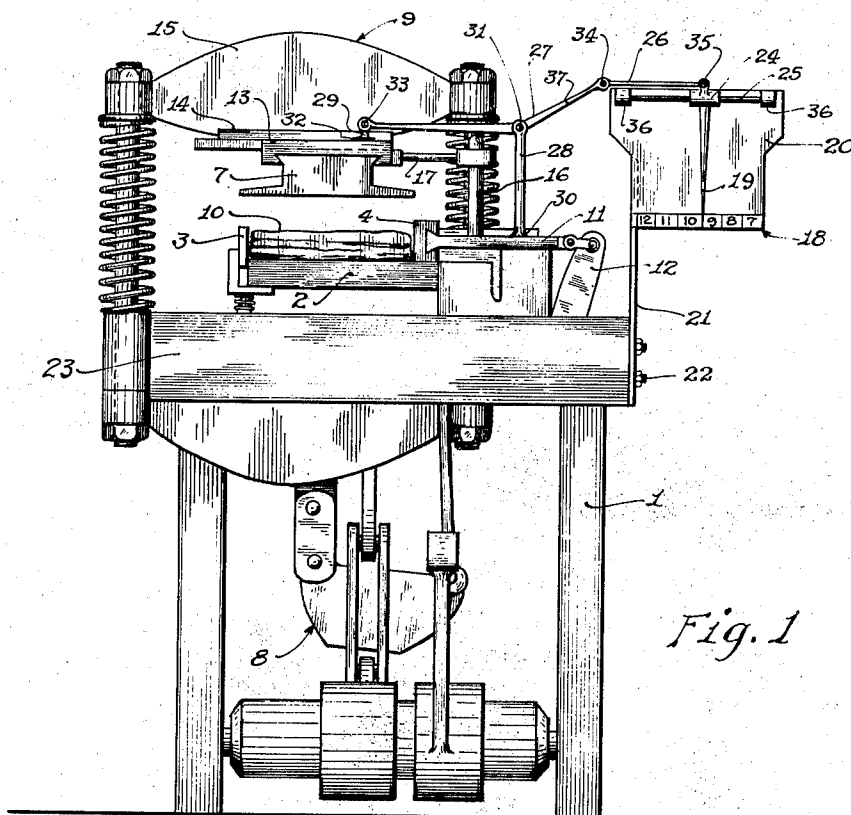


Fig. 1

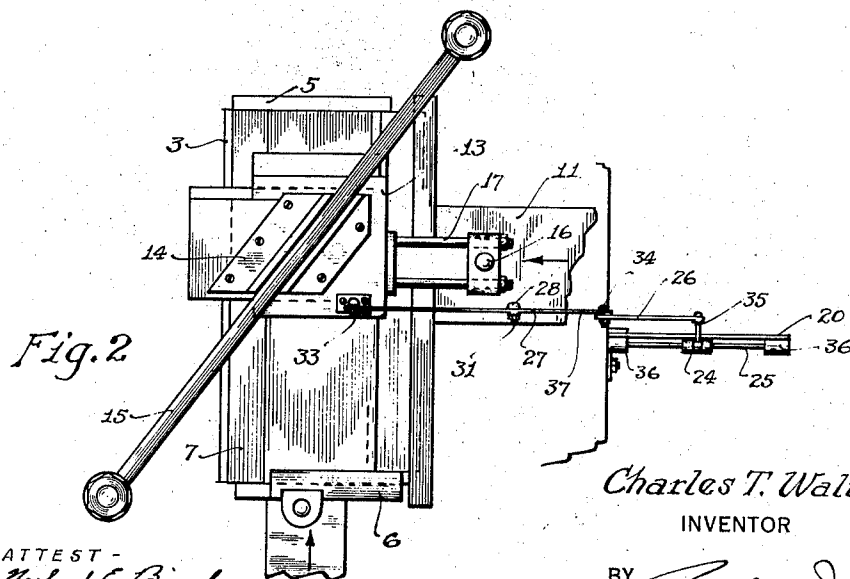


Fig. 2

ATTEST -
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CLASSIFYING MEANS

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6 Claims. (Cl. 33—121)

This invention relates to improvements in classifying means.

One of the objects of the invention is to provide an improved means for classifying a rectangular parallelepipedous article according to the cross-sectional area thereof.

Another object of the invention is to provide an improved means for classifying, such as, for example, slabs of bacon whereby it may be determined in advance the number of slices of a desired thickness a slab will deliver per unit weight.

Other objects of the invention will be apparent from the description and claims which follow.

Bacon is sold to the retail trade largely in pre-sliced packaged form. The slices are of standard thickness, usually approximately three-thirty-seconds of an inch, and average from seven to twelve slices to the one-half pound package, dependent, of course, upon the cross-sectional area of the slab from which taken.

According to one packing house method, the slabs of bacon following smoking are pressed to remove the curl therefrom and to form a substantially rectangular parallelepiped and thereafter the pressed slabs of bacon are fed successively through a continuous slicing and packing system whereby the cut slices are delivered in overlapped arrangement in spaced group formation upon a suitable conveying means for final wrapping.

In the use of such slicing machines it is important that it be determined in advance the number of slices each slab will deliver per one-half pound or one pound unit in order that the slicing machine may be properly regulated as to the desired number of slices per group of slices.

In my prior patent, No. 1,989,252, I disclose one form of classifying means for determining in advance the number of slices each slab will deliver per unit weight. In the use of that machine the slabs are separately classified following pressing of the slabs.

The device of the present invention is an improvement upon the classifying means disclosed in my said prior patent, No. 1,989,252, and is adaptable for independent use in the manner set forth therein. However, by way of illustration but not by way of limitation, the device of the present invention is disclosed in combination with a bacon press, for example, the bacon press disclosed in my prior patent, No. 2,072,694, issued March 2, 1937, and according to the novel combination set forth in the present invention, the slabs may be simultaneously pressed and classified ready for delivery to the slicing machine.

Reference now is had to the drawing in which like characters of reference are used to designate similar elements.

Figure 1 is a front view, partly broken away, showing the bacon press and the classifying means of the present invention.

Figure 2 is a top plan view, partly broken away, of Figure 1.

The press means comprises suitable framework 1, bottom supporting plate 2, side supporting plate 3, side presser plate 4, end supporting plate 5, end presser plate 6, top presser plate 7 and suitable power operated linkage mechanism 8 and 9 associated with presser plates 4, 6 and 7 in a manner adapted to simultaneously operate the same. In the operation of the press means a bacon slab 10 is rested on bottom supporting plate 2 against side and end supporting plates 3 and 5 and is pressed to a substantially rectangular parallelepiped by horizontal inward movement of side and end presser plates 4 and 6 and vertical downward movement of top presser plate 7 against the respective surfaces of bacon slab 10.

For a more detailed showing of the operation of the press means, reference is had to my aforementioned prior patent, No. 2,072,694. It will be seen, however, that movement of side presser plate 4 is controlled through the medium of bar 11 and link 12 forming a part of linkage mechanism 8 and also that movement of top presser plate 7 is controlled through the medium of holders 13 and 14 and yoke 15 forming a part of linkage mechanism 9. Operation of linkage mechanism 9 is controlled from linkage mechanism 8.

It will be seen further that top presser plate 7 is mounted through the medium of holders 13 and 14 for horizontal movement in either direction according to movements of side presser plate 4 and end presser plate 6.

As shown in the drawing, horizontal sidewise movement of top presser plate 7 is controlled from side presser plate 4 through the medium of rigidly connected bars 16 and 17.

The classifying means of the present invention comprises broadly a chart 18 and indicator 19, the indicator 19 being movable relative to chart 18 according to the combined movements of presser plates 4 and 7. Chart 18 comprises a linear arrangement of blocked numerals 7 to 12, inclusive, in this instance to indicate the number of slices the pressed bacon slab 10 will deliver per unit weight. Chart 18 is mounted upon support 20 which in turn is rigidly secured as by riser 21 and bolts 22 to base plate 23 of framework 1. Indicator 19 is slidably mounted for

movement relative to chart 18 through the agency of hub 24 and shaft 25 and is connected with presser plates 4 and 7 through the medium of pivot link 26, bell crank 27 and standards 28 and 29. Standard 28 is welded or otherwise rigidly secured at one of its ends, as at 30, to bar 11 which controls the movement of presser plate 4 and at its opposite end, as at 31, is pivotally connected to bell crank 27 at its rocker point. Standard 29 is welded or otherwise rigidly secured, as at 32, to holder 13 and at its opposite end, as at 33, is pivotally secured to one end of bell crank 27. Link 26 pivotally connects the opposite end of bell crank 27, as at 34, to indicator 19 as at 35. Shaft 25 is rigidly secured in spaced relation with support 20 as by keepers 36.

In operation, the presser plates 4 and 7 are moved to their innermost presser movements against bacon slab 10 in the manner hereinbefore described, whence it is seen, indicator 19 is moved relative to chart 18, first, by direct movement, by presser plate 4 through the medium of arm 37 of bell crank 27 and link 26, and secondly, by indirect movement, by presser plate 7 through the medium of bell crank 27 and link 26.

It will be seen that the present invention, although exemplified for use for determining the number of slices a bacon slab will deliver per unit weight, may be used for determining the cross-sectional areas of other parallelepiped articles for different purposes.

I claim:

1. In a device for determining the cross-sectional area of an article substantially rectangular in cross section including a supporting base and a side supporting plate, a side plate movable relative to the side supporting plate and a top plate movable relative to the supporting base, a chart, an indicating pointer movable relative to the chart and means including a linkage mechanism connecting the pointer with the movable side plate and with the movable top plate, the movement of the pointer relative to the chart being controlled by the combined movements of the movable side plate and the movable top plate.

2. In a device for determining the cross-sectional area of an article substantially rectangular in cross section including a supporting base and a side supporting plate, a side presser plate movable relative to the side supporting plate and a top presser plate movable relative to the supporting base, a linear chart, an indicator slidable relative to the chart and means including a bell crank lever connected to the side presser plate and the top presser plate and a pivot link connecting the indicator with the bell crank lever, the movement of the indicator relative to the chart being controlled by the combined movements of the side presser plate and the top presser plate.

3. In a device for determining the cross-sectional area of an article substantially rectangular in cross section including a supporting base and a side supporting plate, a side presser plate movable relative to the side supporting plate and a top presser plate movable relative to the support-

ing base, the top presser plate being horizontally movable relative to the side presser plate, a linear chart, an indicator slidable relative to the chart and means including a pivot link and a bell crank lever connecting the indicator with the side presser plate and the top presser plate, the side presser plate being pivotally connected with the central pivot point of the bell crank lever and the top presser plate being pivotally connected with one end of the bell crank lever, the movement of the indicator relative to the chart being controlled by the combined movements of the side presser plate and the top presser plate.

4. In combination with means for pressing bellies to a substantially rectangular parallelepiped including a supporting base, a side supporting plate, a side presser plate movable relative to the side supporting plate and a top presser plate movable relative to the bottom supporting plate, means for determining the cross-sectional area of the pressed belly comprising a chart, an indicator pointer movable relative to the chart, and means connecting the pointer with the side presser plate and the top presser plate, the movement of the pointer relative to the chart being controlled by the combined presser movements of the side presser plate and the top presser plate.

5. A device for determining the cross-sectional area of an article substantially rectangular in cross section comprising means for supporting the article in a fixed position, means movable against one surface of the article, means movable against a second surface of the article, said second surface being adjacent to the first mentioned surface, a chart, an indicating pointer movable relative to the chart and means including linkage mechanism connecting the pointer with said second mentioned means and with said third mentioned means, the movement of the pointer relative to the chart being controlled by the combined movements of said second mentioned means and said third mentioned means.

6. A device for determining the cross-sectional area of an article substantially rectangular in cross section comprising means for supporting the article in a fixed position, means movable against one surface of the article, means movable against a second surface of the article, said second surface being adjacent to the first mentioned surface, a linear chart, an indicator slidable relative to the chart and means including a pivot link and a bell crank lever connecting the indicator with said second mentioned means and said third mentioned means, said second mentioned means being pivotally connected with the central pivot point of the bell crank lever and said third mentioned means being pivotally connected with one end of the bell crank lever, the pivot link connecting the opposite end of the bell crank lever with the indicator, the movement of the indicator relative to the chart being controlled by the combined movements of said second mentioned means and said third mentioned means.

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