Nov. 24, 1936. C. W. VOGT 2,062,279

PACKAGED COMESTIBLE

Filed Oct. 30, 1934

Fig. 1.

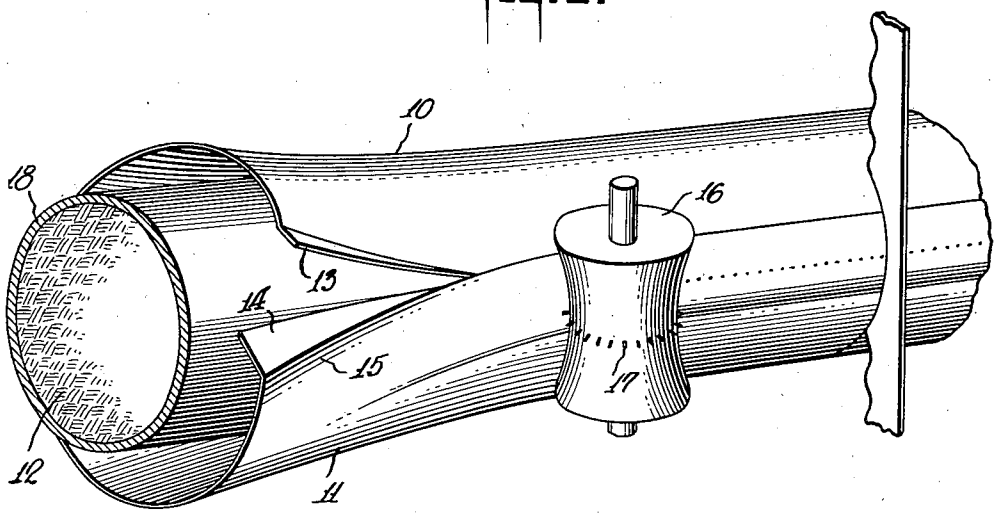


Fig. 2.

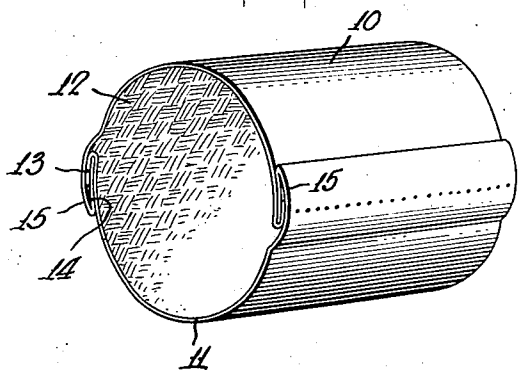
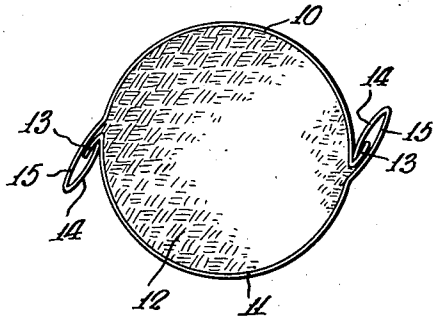


Fig. 3.



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UNITED STATES PATENT OFFICE

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PACKAGED COMESTIBLE

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Application October 30, 1934, Serial No. 750,630

4 Claims. (Cl. 99—180)

In the manufacture of individual blocks, sections or portions of ice cream, there has been commercially employed a process which involves progressively forming a tube, casing or wrapper on the exterior of a hollow mandrel or nozzle and sliding it from the end of said nozzle as the ice cream is delivered into the formed tube. The resulting rod or bar of peripherally wrapped material is cut into sections. In my prior Patent No. 1,906,183 there is shown and claimed one form of an article of manufacture which has been produced in this manner.

In this type of article it is desirable that the wrapper be so formed that it may be readily removed from the periphery of the block, and to facilitate such removal it is desirable that the wrapper present portions which may be employed as finger grip portions to facilitate peeling the wrapper from the block.

In forming the bar of wrapped material it is important that the rate of delivery of the wrapping material and of the filling material be such that the wrapper will be completely filled, but will not be expanded beyond the desired diameter or opened up at the edges of the wrapping material. Such control is rather difficult to maintain with absolute accuracy, and therefore it is desirable to hold the edges of the wrapping material together in such a way as to resist any expanding action of the material if it be delivered at too rapid a rate. It is equally desirable that the edges of the wrapment be held in the desired relative positions in order to avoid the opening up of the wrapment during subsequent treatment, handling or shipment, with the resultant exposure of the material along the sides. At the same time it is desirable that the subsequent removal of the wrapment be accomplished with the maximum facility.

In certain plants manufacturing the product shown in my patent No. 1,906,183, mechanism has been employed which applies adhesive to the wrapping material prior to the forming of the tube around the mandrel, and so placed that it will hold together the overlapped portions of the wrapper. Such a mechanism is shown and claimed in my Patent 2,006,376, issued July 2, 1935. This adhesive material may be of a character such that it does not set hard or permanently connect the overlapped portions of the wrapper, but will either remain somewhat tacky or upon absorption of moisture will become so weak that the overlapped portions of the wrapper may be readily pulled apart in removing the wrapper.

The object of the present invention is to provide an improved form of package and casing or tubular wrapper therefor, in which juxtaposed edges will be effectively held together without the use of adhesive, and which may be manufactured by simpler, less expensive apparatus occupying less floor space, and whereby the wrapper before and/or after being filled may be engaged by simpler and less expensive feeding means, and longitudinally advanced at the desired rate.

In carrying out this invention the overlapped edges of the wrapper are folded to form a locked seam, and at the same time to provide tabs or flanges which may be readily grasped to easily and quickly separate the edges and pull off the wrapper.

In the accompanying drawing which illustrates only one embodiment of the invention.

Fig. 1 is a perspective view of a portion of a wrapped bar constructed in accordance with my invention, and having juxtaposed thereto a rotary feeding or advancing member.

Fig. 2 is a perspective view of a section cut from the bar, and

Fig. 3 is an end view showing the flanges partially opened up as a preliminary step to removing the wrapper.

The construction illustrated includes a wrapper formed of two strips 10 and 11 of paper or other similar material which are fed lengthwise over a hollow mandrel 18, and have their overlapping edges progressively connected together as the strips advance. The two strips may be of the same width and each encircle approximately one-half the diameter of the mandrel. As the strips are fed endwise, ice cream or other comestible or other plastic material is fed lengthwise through the mandrel and the tube is filled as or immediately after it is formed, and as it slides from the end of the mandrel, so that there results a rod 12 of the filling material and a wrapper formed of the two sections cooperatively encircling it.

In order to form the wrapper of the predetermined size and to resist expansion, and to permit the filling material to be delivered under a slight pressure to distend the wrapper to full cylindrical form, the edges of the wrapper sections are interlocked to form a seam. Each wrapper section has one edge folded back outwardly upon itself to form a comparatively narrow flange 13, while the opposite edge is folded back inwardly upon itself to form a very much wider flange 14. The edge of each flange 14 is seated in the groove formed by bending the narrower

flange 13 of the other section, but obviously the edge of the flange 13 does not extend to the fold line of the juxtaposed flange 14. The overlapping parts are not adhesively secured together, and thus the flange 14 of each wrapper section may be swung away from the other section so as to form a tab or finger grip portion of double thickness. These include the flange 14 and an adjacent or juxtaposed portion 15 of the same wrapper section. In gripping this tab adjacent to its outer edge, it will be noted that the flange 13 is not gripped because it extends out only a small portion of the width of this tab.

In forming the tube the tab portions may be pressed tightly toward the side of the mandrel. Thus along opposite portions of the wrapper there will be strips of at least three times the thickness of the wrapper material. This provides adequate thickness for a rotary advancing means, such for instance as a roller 16 extending transversely of the wrapper and with the periphery concave to substantially follow the contour of the wrapper. An annular series of pins 17 are carried by the roller around its mid portion of least diameter, and may extend through the outer layer or the two outer layers of the multi-layer strip, without penetrating the inner layer or forming holes through which leakage may occur. Such penetrating or deforming may push parts of one layer into the next so as to form a kind of interconnecting or riveting of the parts together, but not so tightly but what they may be easily pulled apart. With this type of wrapper it is not necessary to provide conveyors having grippers which will pinch the flanges or tabs therebetween and advance with the tube to feed the latter lengthwise. There may be any desired number of these rollers, and positioned to engage and advance the wrapper either while the latter is on the hollow mandrel or after the wrapper has passed beyond the end of the mandrel and has been filled, or both.

The bar may be cut into sections before or after steps in the treatment following the forming and filling of the tube. For instance, if ice cream be the filling material, the bar may be passed through a refrigerating chamber which will cause the filling material to harden to the desired extent before it is cut into the short, individual sections, portions or blocks shown in Fig. 2. The bar may be first cut into longer sections which are refrigerated or otherwise treated before being cut into the shorter units or sections.

When it is desired to remove the wrapper the tabs or finger grip portions along opposite sides may be readily folded or turned outwardly because they are not held in place by any adhesive. Upon gripping these portions and pulling them in opposite directions the flanges 13 will not ordinarily be gripped and the edge of the flange 14 will easily pull out from the fold line behind the flange 13, and the two sections of the wrapper will be separated. Further pulling will completely remove them from the block or solid body and permit the depositing of the latter in a suitable dish for serving, or at any other place desired.

By means of this invention the apparatus employed may be simplified; very simple means may be employed for advancing the tube and enwrapped bar; and no adhesive applying, pressing, heating or drying means need be employed. The wrapper is effectively prevented from opening up or expanding during filling, even though the material be delivered under a slight pressure, because the flange 13 cannot unhook or pull out so long as the tab is being held against the side of the tube. Any internal strain will push the edge of the fold of the flange 13 against the edge of the flange 14, and the greater the strain, within the limits of the strength and stiffness of the parts, the tighter will be the joint. When the tube is pulled out the seam is automatically unlocked and the wrapper may be quickly and easily removed.

Although it is preferable that the strips be delivered lengthwise, and that the locked seams be along diametrically opposite sides of the bar, it will be apparent that one or more than two sections of the wrapper may be employed, and that the seam or seams may extend in a general helical direction rather than parallel to the axis of the rod. The strips of wrapper material may be provided with score lines, and/or the flanges 13 and 14 may be folded before delivery to the tube forming apparatus, or the forming apparatus may score the sheets as a part of or incidental to the folding of the flanges 13 and 14.

In some cases the wrapment may be formed by dies and seamed in short sections, and these slid over one another and locked together to form a tubular structure, and then this tube of the desired length slipped over the filling tube. This would require less initial cost for apparatus in forming the same final product. If made in sections the separate sections may be shipped flat and locked together just before filling.

Having thus described my invention what I claim as new and desire to secure by Letters Patent is:

1. An individual service portion of ice cream or the like, comprising a substantially cylindrical solid block of ice cream or the like and a wrapper including a pair of sections of sheet material, each of a width substantially equal to the length of the block and of slightly greater length than half the circumference of the block, one end of each section being folded outwardly upon itself to form a comparatively narrow flange and the opposite end of each section being folded inwardly upon itself to form a wider flange, the free edge of the wider flange of each section being disposed between the narrow flange and the body portion of the other section.

2. As a new article of manufacture, a package including a solidified body of edible material normally liquid at body temperature, and a paper wrapper of two sections, each extending approximately one-half of the distance around the block, the adjacent edges of the two wrapper sections being each folded back upon itself to form a locked seam, the folded back portion at one edge of each section being materially wider than the folded back section at the opposite edge.

3. As a new article of manufacture a package including a solidified body of edible material and a paper wrapper formed of a plurality of sections cooperatively encircling and completely covering the periphery of said body but leaving the ends of said body uncovered, each section having one edge folded back outwardly upon itself to form a narrow flange and the opposite edge folded back inwardly upon itself to form a wider flange, said flanges being overlapped and said wider flange forming a portion of a tab for the removal of the wrapper from said body.

4. An individual service portion of ice cream or the like, comprising a substantially cylindrical solid block of ice cream or the like and a wrapper including a pair of sections of sheet material, each of a width substantially equal to the

length of the block and of slightly greater length than half the circumference of the block, one end of each section being folded outwardly upon itself to form a tab extending the full length of said block whereby said tabs may be pulled in opposite directions to peel the wrapper from the block, a portion of each of said sections overlapping a portion of the other section having a series of apertures and indentations to detachably hold the sections together.

CLARENCE W. VOGT.