Feb. 25, 1958 C. M. WELCH 2,824,369

PLASTIC SPOON

Filed Aug. 12, 1954

Fig. 1.

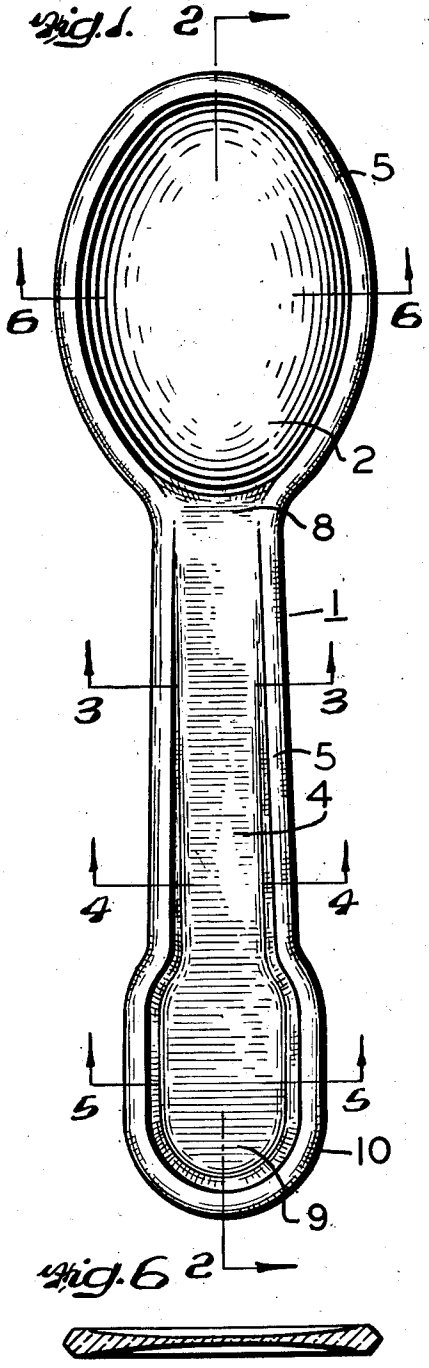


Fig. 6

Fig. 2.

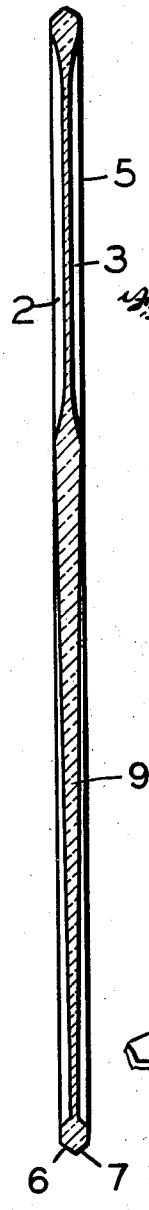


Fig. 3.

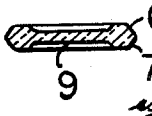


Fig. 4.



Fig. 5.

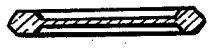


Fig. 7

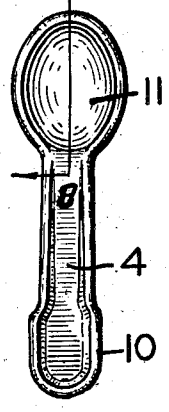
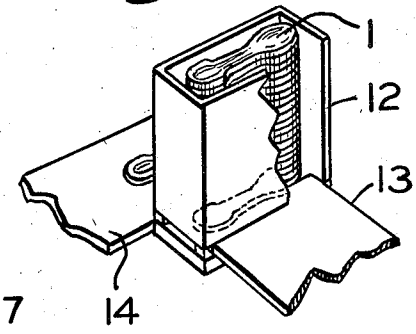


Fig. 8.



Fig. 9.



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PLASTIC SPOON

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Application August 12, 1954, Serial No. 449,311

2 Claims. (Cl. 30—324)

My invention is an improved plastic spoon. It is particularly designed for use in connection with automatic wrapping equipment. My improved spoon is characterized by freedom from warping and splitting, smoothness and uniformity of edges and ease of use and packaging, particularly with automatic equipment.

In its preferred embodiment, my improved spoon consists of a relatively thin strip of plastic material having a bowl on each side and having a rim of uniform thickness extending entirely about the perimeter of the spoon. The bowls are formed completely within the thickness of the spoon and the spoon can be used with equal facility on either side. Neither the bowl nor any other part of the spoon projects above the transverse plane of the spoon.

It is common practice in preparing spoons of this type, especially when they are to be used in the ice cream trade, to make them from a thin strip of wood and to wrap them individually. The spoons are placed in a magazine preparatory to wrapping the spoons. The wrapping paper travels longitudinally of the magazine and a kicker is provided at the bottom of the magazine to push or kick one spoon at a time onto the traveling wrapping paper. A difficulty heretofore encountered was that no successful means has been developed to completely overcome the inherent tendency of the wood to warp, shrink and expand. As a result, individual spoons may be so out of line in the magazine that the kicker would be unable to properly kick the spoon from the magazine and would crush the spoon and jam the magazine so that the wrapping paper would have one or more blank spaces where a spoon should be. While I eliminated the necessity for sorting the spoons end for end, Patent No. 2,401,534, the difficulties occasioned by warpage were not thereby eliminated.

The principal object of my invention is to provide a spoon useable in automatic packaging equipment which has a pair of bowls formed within the depth of the material.

Another object of my invention is to provide a completely uniform, warp-free spoon to be used in connection with frozen confections.

Another object of my invention is to provide a spoon which is light in weight but stronger than the usual wooden spoon.

The characteristic features and the principles of making and using my invention will further appear from the following description and the accompanying drawings in illustration thereof.

In the drawings—

Fig. 1 is a plan view of my improved spoon;

Fig. 2 is an edge view partly in cross-section of my improved spoon taken along the line 2—2 of Fig. 1;

Fig. 3 is a cross-sectional view of the handle of my improved spoon taken along the line 3—3 of Fig. 1;

Fig. 4 is a cross-sectional view of the handle of my improved spoon taken along the line 4—4 of Fig. 1;

Fig. 5 is a cross-sectional view of the handle of my improved spoon taken along the line 5—5 of Fig. 1;

Fig. 6 is a cross-sectional view of the bowl of my improved spoon taken along the line 6—6 of Fig. 1;

Fig. 7 is a plan view of my modified spoon;

Fig. 8 is a cross-sectional view of my modified spoon taken along the line 8—8 of Fig. 2; and

Fig. 9 is a diagrammatic view of magazine, kicker, and wrapper illustrating the means by which my improved spoon may be stacked and wrapped.

As illustrated in the drawings, my improved spoon 1 has a pair of bowls 2 and 3, a handle 4 and a reenforcing edge 5 which encompasses both the bowls and the handle. The reenforcing edge 5 is of uniform thickness throughout and has a pair of bevelled surfaces 6 and 7 on the perimeter thereof. A neck 8 joins the bowls 2 and 3 with the handle 4 and has a thickness equal to that of the reenforcing edge 5.

The bowls 2 and 3 are concaved inwardly from the reenforcing edge 5 toward the center of the spoon 1 and are completely formed within the depth of the reenforcing edge 5. That is to say, at no point does any part of either of the bowls 2 or 3 extend above the transverse planes of the reenforcing edge 5. Neither does any part of the handle 4 extend above the reenforcing edge 5. Thus, the spoon appears to have a uniform thickness when viewed from the side, that is, the depth of the reenforcing edge 5. The provision of a bowl on either side of the spoon permits its ready use regardless of which side is facing the user. The bevelled surfaces 6 and 7 provide a cleavage surface which readily enters a frozen confection.

The handle 4 may have a thickness equivalent to that of the reenforcing edge 5. However, I prefer to graduate the thickness of the handle as illustrated in Figs. 2, 3, 4 and 5. The membrane of the handle 9 adjacent the neck 8 is approximately the same thickness as that of the reenforcing edge 5 but it progressively diminishes in depth in proceeding toward the flared end 10 of the handle 4. By this construction my improved spoon has its greatest strength at and adjacent to the neck 8 where it is subjected to the greatest strain and has less strength at the flared end 10 of the handle 4 where there is little occasion for any substantial strength.

My modified spoon shown in Figs. 7 and 8 has but one bowl 11, and such bowl has a depth approximately equal to the combined depths of the bowls 2 and 3. This additional dishing may be particularly advantageous in handling frozen confection.

As illustrated diagrammatically in Fig. 9, the spoons 1 are stacked in a magazine 12 and are ejected from the bottom thereof by means of a kicker 13 onto a wrapping paper 14. The exit slot (not shown) is cut so that it has a clearance which is barely larger than the length and the depth of the spoon in order to prevent multiple spoon ejection. In using wooden spoons which are subjected to warpage and variation in size due to varying temperatures and humidity conditions, the spoons are sometimes jammed at the exit by reason of their non-uniformity of size thereby causing splintering of the spoon and a blank space on the wrapping paper.

As my improved plastic spoon is made to close tolerances and is little affected by temperatures and humidity changes, the exit slot clearance can be kept small. The uniformity of the reenforcing edge 5 insures that one spoon and only one spoon will be ejected onto the wrapping paper 14 with every operation of the kicker 13. No end to end sorting is required when loading the magazine as the reenforced edge 5 is uniform throughout and presents sufficient surface on which the next succeeding spoon may rest regardless of direction without danger of tipping or canting.

While I have referred to the use of my improved spoon in connection with frozen confection, it is to be under-

stood that the spoon can as readily be used as a coffee, soda, ice tea or general utility spoon.

Having described my invention, I claim:

1. A thin eating spoon capable of being stacked and wrapped in an automatic wrapping machine comprising a pair of bowls at one end of said spoon disposed in back to back relationship, a handle including a shank and a flared end, said flared end being of a width greater than one-half the width of either of said bowls, and a flat perimetrical edge surrounding said spoon and having a thickness at least as great as that of said bowls and said handle.

2. A thin eating spoon as set forth in claim 1 in which said edge has a wedge shaped cutting surface.

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