

perature, or it may not have been heated at all. If the sample turns a pale grey in colour either immediately or within half a minute's time after the addition of the reagents, then it has been previously heated to the "border line." If the sample remains white or develops a very pale violet-red tone by the addition of the reagents, then it has been heated to a temperature sufficiently high to destroy or to render inactive the peroxidase ferment.

In reporting the Storch Tests in this contest, three terms were adopted: "No Reaction" (N.R.) when the sample remained white; a "Light Reaction" (L.R.) when the sample turned a light grey colour; and a "Strong Reaction" (S.R.) when the sample turned a dark blue colour.

The following brief statement shows the value of the test in relation to the keeping quality of the butter.

One hundred and thirty samples gave "No Reaction," and at the last rescore eight of these samples, or 6.07 per cent, were placed in "Off Grade" for flavour; the churning records indicate that five of the eight samples were made from cream in which the acid had been neutralized, and two were made from unpasteurized cream; and no record as to the acidity or condition of the cream was given. It has been found that a very high acidity on the cream will affect the Storch Test results.

Thirty-one samples gave a "Light Reaction," and at the last rescore eleven of these samples, or 35.5 per cent were placed in "Off Grade" for flavour.

Twenty samples gave a "Strong Reaction," and at the last rescore 50 per cent were placed in "Off Grade" for flavour.

These results would indicate that the Storch Test is a fairly reliable test to show the keeping quality of butter, and can be used to very great advantage in commercial grading.

STANDARD TYPE OF BUTTER.

The type of butter that pleased the scorers best, and in fact everybody else who saw the samples, was that which came out on the trier like a piece of wax and showed little or no moisture on the butter or on the back of the trier. The texture was firm, close and smooth. At one time this style of texture would have been considered over-worked, but it is a very desirable quality at the present time. The colour was even, and about a straw shade. This type of butter when salted to suit the requirements of the different markets will, we believe, please the most critical buyer of butter.

TEXTURE.

Many of the samples were brittle or short in texture, the butter had the appearance of being churned at too high a temperature, coming soft, and then washed with very cold water. It was thought at one time that brittle texture in butter made from pasteurized cream was due to churning the cream too soon after pasteurizing, or before the fat had been cooled sufficiently, but a brittle texture was found in butter made from cream which was cooled to 46 degrees and held for fifteen hours before churning at a temperature of 52 degrees. A careful study of the churning records for the 1919 contest fails to show any definite cause for brittle texture. The butter from the Maritime Provinces is inclined to be open and loose in texture; more working would improve it. A close, smooth, waxy texture is what is desired.

MOISTURE.

In view of the fact that the law in reference to the water content of butter is being enforced, it is important that the creamerymen pay close attention to this particular point, but in addition to the proper amount of moisture in the butter, it is important that the moisture be properly incorporated. When the moisture shows in large drops in the butter, or on the trier, it is considered leaky or as having too much