will return oftener and remain longer nearer home. The grassy yard, where they held their sport within sound of mother’s voice; the garden with its fruits and flowers and the old orchard with its favorite apple trees, all remind them of the best home, which the sun ever shown upon, and from which they went out to make like pleasant homes, and be living examples of all that is good and noble and useful.

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Granulated Butter.
[By John Gould, Ohio.]

The present method of granulation of butter may be set down as one of the most valuable features yet introduced in butter-making, and where practiced, has produced a marked improvement in this product of the dairy.

It is now ten years or more since the introduction of this method, and it has made steady progress in popular favor, but thousands of butter-makers still continue to make by old methods, preferring to gather the butter in the churn into large lumps, or balls, and work out the butter milk by a mechanical process. These same persons claim that washing butter not only washes out flavor, but blanches color, impairs the keeping quality of the article, and often gives the butter a porous and spongy character.

These objections seem to be fully refuted by the best butter-makers, who now are adherents of the granular system and attribute much of their success to following it. The rules are very simple, and no one need hesitate, for fear of a complicated process, to try, and prove whether the new system is not only a great saving of labor, but also a means of obtaining most positive and better results.

The best method to obtain perfect granulation is to have the cream well aired, and churned at the first stages of acidity. Cream should, if possible, be churned every day in summer, and at least every two or three days in winter. It is also best to churn at a point as low as possible, especially limpid cream, which may be classed as cream somewhat sweet in character, while if the cream be tough and tenacious, a higher degree will be needed. Major Alvord found that range of creams of all kinds and conditions, to obtain best results at the churn, 55° to 70°, but cream in proper condition can be churned with satisfactory results as low as 50° to 52°.

As the butter assumes a distinct form, the process of granulation should commence. There is some difference of opinion about this point. But it is safe to begin the granulation at the first distant sign of butter, or a little later when the butter grains begin to show about the size of small shot, and here the operation of churning should cease, when a quantity of cold water, in which a little salt has been dissolved, should be added, enough in quantity to cool the mass down to 55°, which seems to be about the point where hardening of the globules can be carried, and not prevent cohesion among them. The lower the temperature, the more force is needed to make the butter compact, and it may be made so low that the butter will be dry and crumbly, a matter that should be avoided. The use of salt with the first, and even all washing, or granulation of the butter, is now generally recognized as an important aid. The salt has its office in increasing the gravity of the cheesy elements of the butter milk, and if a quantity of water, nearly equal in bulk to the amount of cream, is used each time to graduate and free it from butter milk, there will be very little trouble in getting a perfect separation, and very little if any use for strainers and sieves to catch escaping butter. Salt is useful in giving butter a cleaner look in the process of washing than can be secured without its use.

The granulating process should be so conducted that the gathering of the butter in a mass shall be prevented as much as possible, for herein lies the full measure of success. If we churn so as to gather the butter in lumps in the churn, the butter has also inclosed a large per cent. of the albuminous matter and butter milk, and while in working over, a part of this fluid (casein and sugar), may be expressed, yet a part remains enclosed, as it were; and the working over is but to divide and subdivide it so as to make it invisible. This, then, is clear that the nearer we can get to keeping the granules separate during the stage of washing with brine, the more nearly we shall accomplish our purpose in freeing the butter from buttermilk, and exchanging this butter-
milk moisture of the butter for one made of pure water and salt.

To how many washings granulated butter shall be subjected judgments differ, but if a little salt is used each time, it is safe to repeat the operation until there is no showing of milk. Lately there has been much discussion about how granular butter shall be salted. As no butter-maker now advocates using more salt than will readily dissolve in the butter by its own moisture, it then stands to reason that all we can do for butter is to put it, while in the granular stage, in a bath made of all the salt that water will dissolve, and allow it to absorb this saturation, filling the interstices among the globules with the dissolved salt. To do this effectually, it would be best to first allow the butter to drain as freely as possible before the brining process commences, so that there shall be as little weakening as possible of the last salt solution.

It may be urged that this washing in two or three waters takes more time and labor than to work by old methods. To do good work, a person needs tools adapted to the requirements of the case, and so the making of the granular butter is best done in some of the forms of revolving or rectangular churns. By their use the agitation needed is done by one or two turns of the churn. If a little salt is used with each washing it produces a yet greater difference in the gravity between butter and the caseinomons matter, and if quite an amount of water is used the butter, after the agitation, quickly comes to the surface, and the buttermilk or brine wash is then at once drawn out from beneath the butter, and it is as quickly renewed. It is always well to have the temperature of all the washings at about 55°, as a warm bath is liable to give the butter a shiny look.

The salting may be done by incorporating salt and working it into the butter, setting it away to dissolve before working over, or it may be put into this bath of strong brine, where it remains for an hour; but it needs a little agitation occasionally, as the tendency of the butter is to rise above the brine, and the object is to coat each little globule with a film of salt, and when the working over takes place the brine fills the places once occupied with buttermilk. It is said that brine-salted butter is not salt enough. It is certainly as salt as butter salted by any process that does not contain more salt than is readily dissolved by the butter. Any salted butter must be full of undissolved salt, and that would not add to but rather detract from the keeping quality of butter.

The reason why brine fails to give proper salt flavor in the hands of some operators, is that they do not take cognizant of the fact, that the butter at the start is full of water which reduces the strength of the brine by so much. And if the butter is allowed to absorb this "saturated solution" salt for some moments and then is withdrawn, a new supply of salt dissolved in this same brine; and then returned to the butter, the last "bath" completes the work, and the butter now has its full amount of one-half ounce to the pound.

With granulated butter, whether brine or dry salted, there should be very little working over—just enough to press out the unneeded moisture. Some makers put this butter on a worker, and with a flat lever press it into compact form and pack. In brine salting, it is possible to take the granular butter out of the bath, and by putting a small quantity into the package at a time, work it over sufficiently by the one operation of packting. But the "potato masher" used for that purpose should never be turned or twisted in the butter, but rather pressed down, and the moisture removed with a damp cloth which is frequently rinsed out in the brine.

To sum up, the advantages in brief for granulated butter are: There can be no injury to the grain of the butter, or "salving;" working over butter is practically avoided; and the butter is rinsed free from the buttermilk, obviating the mechanical part of expelling it by force. The injury liable to be done by coarse salt cutting the grain of the butter cannot happen and the salting is even; taking on color alike by the action of the salt, the butter is made uniform, and if it is handled in this method, and the cream at the start is well ripened and mildly acid when put into the churn, there is little need of the thousand and one grades of butter now found in the market. And the poor housewife will find that the butter was made with half of the labor, and two chances for success now, by the old methods the one not always secured.