The preceeding remarks refer to the more extensive dairy operation which can be carried on in the more favored localities, but there will alwith be some so situated that it will not be practicable for them to carry out t^a, modern system thus projected, and you can with propriety ask me if there no suggestions to meet such cases to the end that dairying be more profita a and the product less liable to deterioration.

Though I would not think of giving any recommendations as to acc specific practice, yet it may be in place for me to offer such information sh can be derived from a study of the chemistry of milk and butter, and thrk with your permission, I will offer in such a way—as far as I am able—as to utilized in the ordinary dairy operations of the farmer's home.

Milk is a fluid having an alkaline reaction (as distinguished from an ac pe or having a sour taste) and commences to decay as soon as it leaves the con-(for, as you are aware, nature's design was for its immediate use in nourising the calf).

The casein, or what forms curd, is an albuminoid or nitrogenous substand and like all those compounds very prone to decay. It is not soluble in ani acid fluid, as every dairyman knows vinegar or an acid will at once turn miling Under ordinary conditions the lactin or milk sugar (owing likely to its contact with the albuminoids present, of which casein is only one) begins to dte eay and is converted into lactic acid.

Until the acidity, or sourness, has increased sufficiently (to neutrali fithe alkalinity) the milk remains fluid, but as the acidity increases we hav first a curdling or coagulation, and then a further acidity until the milk late comes quite acid—sour milk. The curd also decays and we may in a shore time have a very offensive compound.

Case in is coagulated by the addition of many other things as well \rbrace s acids, but under ordinary conditions lactic acid is the agent. By adding solvin or an alkali the curdling can be delayed for a time, because the acid condition is by this means obviated.

The above properties of milk must be borne in mind when considerialt the subject of butter preservation no matter how obtained, for the influend of adherent milk contamnination does not appear to be clearly understood. the

In any organic liquid it is difficult to prevent (and almost impossible arrest) decay when it has once begun, and in buttermaking when souring ^{np} ripening has been established, very, very great care is needed to prevent the ^{Jst} changes being conveyed to the Butyrin or volatile flavoring fat of butte ⁱⁿ than if it were obtained in the direct mechanical way and where no chemic^{str} change has occured, as in commencing decomposition or ripening

The volatile fats are far more delicate compounds then the fixed fat^{all} and are the first to break up when exposed to deleterious influences.

Though ripening assists in seperating the butter fat from the milk, and I have no experience that would council my recommending any other plass under the ordinary conditions of the dairy, yet you must not be oblivious to the fact that it adds an additional element of danger to its keeping qualities

All ordinary butter starts with the seeds of decay firmly attached to i^{k} and no preservative—such as salt—is sufficient to arrest it, and this the mon^{4t} when exposed to a warm temperature and more or less to the air as well.

How is the ordinary buttermaker to deal with things as they are pressure sented to him? Theoretically if all the other substances in milk could be r^{4y} moved from the butter, no matter how obtained, and the fat left pure an⁴⁴