

pencilium spores, the coagulation and separation of the caseine may be produced quite as quickly as with rennet.

CONCERNING RENNET.

We have a number of theories concerning the nature of rennet, and the peculiar principle on which its virtue in cheese-making depends; but it is a question whether any of the theories of its action are strictly correct; indeed, there is so much difficulty involved in the investigation of this subject that we are not likely to have all our queries satisfactorily solved for some time to come. The cheese-maker has learned a few things of much practical utility respecting the effect of rennet in cheese-making; but it is evident his knowledge is far too limited, and that were he better acquainted with its true nature and operation it would subserve an important purpose in promoting improvement in his art. We know that, to make good cheese, the quantity of rennet of a given strength must vary according to the quality of the milk. Thus, for instance, when milk is thin and impoverished, more rennet should be used than when the milk is rich, because in rich milk the buttery particles induces a more rapid action of the rennet. When too small a quantity of rennet is used, the curing process goes on slowly, and the cheese is liable to be hard, dry, crumbly and sour, and perhaps will begin to leak whey when two or three weeks old. On the other hand, when too much rennet is used, the cheese cures too rapidly, and the texture will be tender, soft and salvy. Such cheese is ripe early, and must be consumed soon, or it will depreciate in flavor, and is liable to be lost, from too rapid decomposition.

It will be seen from this that discretion and judgment must be used by the cheese-maker in the employment of rennet, according to the quality of the milk he has to manufacture. To what extent cheese may be improved by the use of the exact proportion of rennet required, is not generally understood; but our best cheese-makers have learned the fact that an improper use of rennet causes the cheese to turn out a very inferior product.

Everyone knows, says Herr Martiny, in a recent number of the *Milch Zeitung*, that rennet is an essential in the preparation of cheese from sweet milk. But its mode of action is one of the observant points

in dairy work. We know not its unknown agency, and its precise results only by acquaintance with its action, instead of thus empirically. Yet, is that its efficacy destroyed at a temperature of blood heat, and grass point. We have yet to learn.

First.—Does it proceed from the milk, or does it proceed from the rennet?

Second.—What is the principle?—Is it such a principle?

Third.—Of what animal or vegetable origin are they composed?—Is it such a principle?

Fourth.—In what quantity?

Fifth.—How much?

Sixth.—How much of rennet be estimated by the sweetness or of acidity?

Seventh.—What amount of rennet is required for degrees of fatness, and for degrees of acidity?

Eighth.—What rennet undergo, and what with it, according to the principles?

Till these points be settled, must be more or less, accretion is due rather than legitimately attained based principles.

Now, although for coagulating milk means improbable, not superior, to the vegetable kingdom.