

wall itself was found to be full of germs. The plastering contained some, but the agents of infection grew fewer and fewer as the investigation proceeded toward the surface, until when the two layers of whitewash next to the outside were reached, absolutely no germs were discovered. The outside layer, of course, contained dust amid which were found disease germs. It is therefore certain that nothing is to be gained by removing the old layers of whitewash.

"What is the best way of sterilizing the surface of walls? Bread-crumbs will clean away dust, etc., but the process is tedious and costly, and then it does not sterilize; sponging does not clean, and does no real service, wetting with a solution of sublimate is valuable only when the solution is stronger than 5 per cent. and where hydrochloric acid is added. Whitewashing with milk of lime has given the best results, destroying not merely the surface germs, but those that have effected lodgment in the subjacent layers.

"The best whitewash for the purpose is prepared by adding 4 pounds of fresh quicklime to 5 quarts of water. Stir and decant at the end of a quarter of an hour, then add 10 ounces of glue dissolved in 5 quarts of boiling water. This is the whitewash of the Arabs, and many layers of it can be superimposed without cracking or scaling. Its action on disease germs of all kinds is immediate and certain."—*Nat. Druggist*.

### Black Pepsin.

Many enquiries having been made concerning the wonderful compound which is advertised under the name of "Black Pepsin" and which it is claimed increases the yield of butter 150 per cent., we give an extract from a letter written by H. H. Dean, of the Dairy Dept. Ontario Agricultural College, Guelph, in which he gives the results of his experiments with the preparation. He says:

The directions on the envelope for dissolving the powder were as follows: Melt sufficient butter to make two teaspoonfuls butter oil, then add to the butter oil the contents of this envelope, and keep hot till all is dissolved. When dissolved it is ready for use. Use according to directions for making butter with Black Pepsin. It will require three or four churnings to get the best results, but this sample will give you a good idea.

I followed directions, boiling the powder for one and a half hours in a water bath, and found it insoluble. I also boiled it in water and found it but very slightly soluble. It was also insoluble in alcohol and in dilute muriatic acid. After boiling for a time it resembles butter color somewhat.

On November 7th we made an experiment, with the following results: Eight and one-half pounds of cream, which tested 15.4 per cent. of fat, or contained about one and one-half pounds of butter, were treated according to directions.

(The directions say that for each gallon of cream add two pounds of melted butter when the butter "breaks.") When finished there were three and one-half pounds of worked and salted butter. After deducting the melted butter we had but one and one-half pounds of butter, which was about the original amount contained in the cream. The buttermilk contained .9 of 1 per cent. of fat.

On November 12th I took 18 pounds of cream, testing 17.4 per cent. of fat, that had been properly ripened. It was evenly divided after mixing. One-half was churned according to "Directions for making butter with Black Pepsin," and the other half churned in the ordinary way. The first or pepsin churning, after deducting the melted butter added, produced one and one-half pounds of butter. The second lot, to which no pepsin was added, produced two and one-quarter pounds of butter. The buttermilk from the pepsin churning contained 1.6 per cent. of fat, while the other contained 0.4 of 1 per cent. of fat. The difference of three-quarters of a pound of butter in favor of no pepsin, I would account for in this way: In handling the melted butter there is more or less loss by sticking to the utensils, while the buttermilk contained over one-quarter of a pound of butter. There would also be some difference in the working of two samples, as no two lots can be worked to contain exactly the same percentage of water, etc. These two experiments, in which we have used all the "Black Pepsin" sent us, show no advantage whatever by using it, while the extra labor involved is double.

In the meantime I would advise farmers to continue making butter by the latest improved methods hoping to make the ordinary profits, and give "Black Pepsin" and all other rich-fast compounds a wide berth. It is possible that some new kind of food may be manufactured from milk. It will not be butter, but something which contains more of the solids of milk than does either butter or cheese. If anything new develops we shall be glad at all times to give the public the benefit.

He also states that although he wrote to Cloud, Harlin & Co., Toronto, who were advertised as Canadian agents, he had not up to the time of writing (November 14) received any reply. The "Pepsin" used was obtained from the Concord Chemical Co., of New York City.

### Europen in Burns.

Dr. Siebel, of Elberfeld, reports (*Berl. Klin. Woch.*) on the use of Europen (Iodo-di-iso-butyl-ortho cresol)—previously described in this journal—in about thirty patients suffering from burns and the effects of caustics,—from the slightest forms to those of the third degree, and arising from all sorts of injurious agents (hot soda-lye, boiling glycerin, sulphuric and hydrochloric acids, burning alcohol, etc.). At first the Europen was applied

in the same manner as it is customary to use iodoform,—that is, after cleansing the parts, opening the blisters, etc., the burned places were lightly covered with Europen powder, and then a dressing of sterilized gauze and cotton was applied, and the whole fixed with bandages. When the burned areas were extensive or could not readily be covered with the powder, the wounds were dressed with 10% Europen gauze.

Under this treatment exuberant granulations were formed, and cicatrix was firm yet elastic. Occasionally there was observed firm agglutination of the gauze to the wound, which could not be completely obviated, even by interposing a layer of gutta-percha tissue. In consequence of this adhesion the exuberant granulations were frequently torn on renewing the dressing, and slight hemorrhages produced. To avoid this disagreeable feature the medicament was subsequently used in the form of an ointment, at first of a strength of 10 per cent. As the latter, however produced irritation in some instances, and in one case a slight eczema, its strength was diminished, and finally a 3% ointment of the following composition was adopted:

Europen ..... 3 parts.  
Olive Oil ..... 7 parts.

Dissolve, and add:

Vaseline ..... 30 parts.  
Linolin ..... 30 parts.

Externally:

It is claimed that excellent results were obtained from this ointment, the secretions being markedly diminished. Owing to the latter effect it was possible to leave the dressings in place for three or four days, and to renew them easily and without pain. Severe burns of the third degree healed completely, it is alleged, after three or four dressings; the pain was relieved from the moment the ointment was applied.

Unfavorable effects or symptoms of poisoning were never observed, aside from the irritation produced by the stronger ointments.

On the ground of these observations Dr. Siebel regards Europen, in 3% ointments, superior to iodoform for burns; besides the absence of all disagreeable odor, there is said to be no danger from toxic effects.

An Electrical Vegetation Destroyer has been devised recently, consisting of a wire brush, very much in appearance like an ordinary scrubbing brush. This is connected by a wire with a dynamo in the nearest available electric-light or power station. A powerful current is turned on and an operator drags the fully charged brush, which is supplied with a wooden handle, over the grass, killing it instantly. There are many ways in which this ability to instantly destroy vegetation can be utilized. Gardeners, especially, are likely to be grateful for such a ready method of getting rid of noxious weeds on garden walks as well as in flower beds.