

FARMERS' COLUMN.

Important Consideration of
Water Supply.THE FARM WELL--THE CHEESE
FACTORY AND CREAMERY.

Department of Agriculture,
Ottawa, May 26, 1904.

Some rather startling facts in regard to the water supply of our farms, cheese factories and creameries, were brought out at the conference of dairy instructors and experts held in Ottawa last fall, the official report of which is now being distributed by Mr. J. A. Ruddick, Chief of the Dairy Division, Ottawa. In discussing the sanitation of cheese factories and creameries, Dr. Connell, bacteriologist at the Kingston Dairy School, pointed out that one great sanitary requisite is good water. Most of our factories obtain their water from shallow wells, only a few using water from deep wells, springs, creeks or rivers. Good water can be secured from shallow or surface wells, yet such water is always classified as suspicious by sanitarians when it is used for drinking purposes. The reason for this simply is that such water is ground water, derived by seepage water. Shallow wells are usually placed quite close to the houses or factories which they are to supply, and thus the soil in their neighborhood is apt to become contaminated, and this contamination is sooner or later carried by seepage into the well. Fortunately the soil is an excellent filtering and cleansing agent, but it is only able to dispose of a certain amount of contaminating material. Such disposal takes time, so that if there is a particularly heavy rain, the contaminating matter may be carried far into the earth below the purifying layer, and thus soak unchanged into the wells. If a large amount of this contaminating material finds its way into the soil, the earth becomes "sour," and can no longer dispose of or purify the waste, which tends to soak into and mix with the ground water. Some surface wells are so constructed as to be mere surface drainage pits; that is they are not raised above the surrounding earth, and hence receive the surface water direct. Farmers and butter makers ought to realize that a surface well does not get its water from some hidden source below, but is simply a collecting reservoir for the ground water derived from rain and snow water. And further, that if the soil in the neighborhood of such a well is saturated with slop water and house or factory drainings, that sooner or later these will make their way into the well.

Some Tests.

Prof. Shutt's chemical analyses of farm well water, have shown the majority of the wells to be a little better than cess pools. From 100 to 200 samples a year are analysed at the chemical laboratory of the Central Experimental Farm, and not one-fifth of these can be passed as safe and wholesome. By far the greater number are utterly condemned, while others are reported as suspicious, putting them in the category of those that are unsafe to use. The bacteriological examinations of Dr. Connell, and Prof. Harrison of the Ontario Agricultural College, show similar results. Dr. Connell

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mentioned that out of a dozen factory waters sent him last summer, not one was found fit for use. All were badly contaminated, and for drinking purposes would be immediately condemned. Later, Dr. Connell had an opportunity of seeing two of the wells from which the samples were taken. Both were subject to direct gross contamination from drainage water lying under the factory floors, and the streams of dirty slime could be seen opening into the wells about four feet below the surface, so foul that animals would not face. Both these waters were very foul, so foul that animals would not face. Such a well is generally termed a "mineral" one in the section, probably because the sulphuretted hydrogen of decomposition causes an odor somewhat like that of natural sulphur water.

A Farmer Cured of Rheumatism.

"A man living on a farm near here came in a short time ago completely doctored up with rheumatism. I handed him a bottle of Chamberlain's Pain Balm and told him to use it freely and if not satisfied after using it he need not pay a cent for it," says C. P. Ryder, of Paterson, Mills, N. Y. "A few days later he walked into the store as straight as a string and handed me a dollar saying, 'give me another bottle of Chamberlain's Pain Balm. I want it in the house all the time for it cured me.'" For sale by all druggists.

Improvement Necessary.

A factory cannot be kept uncontaminated, so long as the drainage and whey disposal system of the factory is not carefully looked after, so that the first essential for a pure water supply from the ordinary well is good drainage. Next is the proper construction of the well, including its covering, so as not to permit surface washings flowing in. As Prof. Shutt pointed out, this drainage matter, apart from its actually poisonous character, is the very material upon which microbes and germs live, and water polluted from the barnyard, privy, etc., is always loaded with countless millions of bacteria. It is impossible to turn out first class dairy products where such water is used, so even from the dollars and cents standpoint, improvement in this respect is imperative.

It is not the smell or appearance of water that denotes its condition. Many samples of water, which to the sense of smell or sight or taste are perfect, yet simply reek with filth. The bacteria which we cannot detect by our senses are far more dangerous than those which we can detect.

RICHER THAN KLONDIKE.

New York, May 28.—The Tribune has the following from Austin, Texas: John Bouttell, a well known mining man who went to the new placer gold fields near La Paz, in lower California, has cleaned up a fortune of \$80,000 in the few weeks he has been there. In a letter received here today, he says that Juan Mendoza, the discoverer of the field, has made more than \$6,000,000 out of his placer mines in the last four months. Many Americans have gone to the new fields, and some of them have acquired good claims, and are making big fortunes out of them. Mr. Bouttell says that the new fields far exceed the Klondike in richness.

Blessed is he who has found his work; let him ask no other blessedness.

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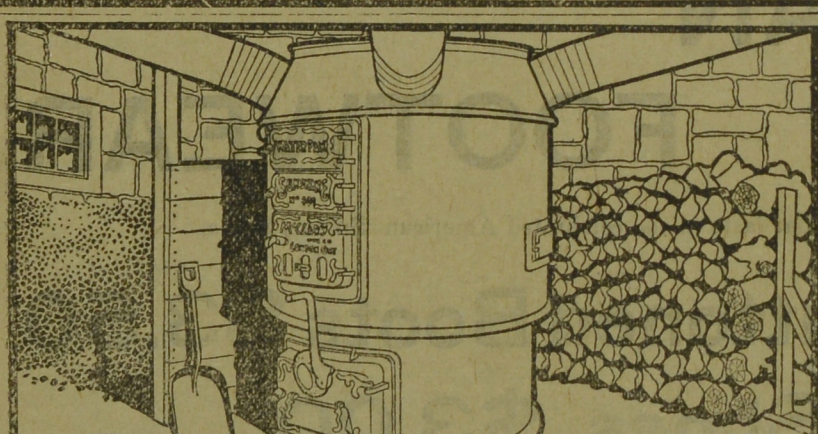
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