BEET SUGAR MAKING AT HOME.

Office of the Agricultural Epitomist.
Indianapolis, Ind., Dec. 1, 1897.

Editor RANCH AND RANGE: To correct much misinformation on the timely topic of "Beet Sugar Making at Home," we have taken pains to secure the attached important expert statement, which appears in our December issue. Will you kindly notice or quote for the public good? Respectfully, E. CHUBB FULLER, Managing Editor.

November 2, 1897.

Dr. H. W. Wiley, Chief Chemist, United States Department of Agriculture, Washington, D. C.—Dear Sir: The Epitomist appeals to you as authority on the subject of sugar making from sugar beets, and asks for such information as you may be willing to furnish for publication in relation to some process by which farmers may produce beet sugar at home in a small way for their own use.

It is hoped that this information, which you are so well equipped to furnish to the public, may enable the man with a cider or fruit press and a few pots and kettles to do something for himself in this line of work while awaiting the slow development of the beet sugar industry on a larger scale.

We have heard a story of your experiments with sorghum as a boy on your father's farm, and may there not be embryo scientists now to be stimulated by the new sugar movement?

Trusting that you will consider our appeal as pro bono publico, we are, dear sir, most sincerely yours,

EPITOMIST PUBLISHING CO.

United States Department of Agriculture, Division of Chemistry,
Washington, D. C., Nov. 9, 1897.

The Epitomist Publishing Co., Indianapolis, Ind.—Gentlemen: I have your letter of the 2d inst. asking me for an expression of opinion in regard to some process by which farmers may produce beet sugar at home in a small way for their own use. In reply permit me to say that the production of a crude beet sugar in a small way is an extremely simple process. Any farmer who is equipped with a cider mill for rasping the beets, a cider press for expressing the juice, and an evaporator suitable for making sorghum molasses, can produce a crude beet sugar. As a rule, this sugar will not be very palatable, because it is not refined and contains the salts and bitter principles which make raw beet sugar and beet molasses, as a rule, unfit for table use. It will be, however, an interesting object lesson to our farmers to demonstrate the fact that the sugar beet itself contains sugar, and that the latter can be made in the crude way I have mentioned above. In this way the making of sugar in a small way by farmers may prove a stimulus to the industry and do great good. Farmers, however, should not be deceived by the expectation of being able to make their sugar in a successful way commercially. The successful and profitable manufacture of sugar can only be accomplished in expensive factories, equipped with all the appliances necessary to make a pure refined sugar. Only the pure refined beet sugar can ever become an article of commerce. In this the beet differs from the sugar cane, because the latter will give a sugar which, even in the crude state, is palatable and marketable; in fact, many people prefer crude cane sugar to the refined article on account of its containing the aromatic principles of the cane, which give it an odor and flavor very acceptable to most palates. I trust that any of your readers who may undertake the manufacture of beet sugar in the crude way I have mentioned above may do so only from the point of view indicated, and not with the expectation of making it a commercial success. I am, respectfully, H. W. WILEY, Chief of Division.

CODLIN MOTH DESTROYER.

In line with an address delivered by Dr. N. G. Blalock of Walla Walla concerning a German bird and its fondness for one of the most troublesome of fruit pects, we present the following from the Caldwell (Idaho) Gem:

The State Board of Horticultural Inspection will probably meet at an early date and decide, among other things, upon the feasibility of introducing the kohlmeise. It may be that the introduction of this little bird would solve the problem of how to avoid wormy apples. At the same time it must be conceded that the matter would be in the nature of an experiment, and that all such experiments are attended with some risk. The English sparrow is an illustration in point. These are things that ought to be considered in advance. Besides, even if the kohlmeise does what is claimed for it in its native abode, there is no definite assurance that it would accomplish the same results under other conditions. The history of birds, as well as insects, has shown that their characteristics are liable to change with changed environments. Insectiverous birds have been known to become largely vegetarians and fruit consumers; hence have proven enemies instead of friends of the orchardist and gardener.

We also find the following entertaining article in our esteemed contemporary, the Oregon Agriculturist:

I am much interested in the attempt of a few enterprising horticulturists on the Pacific Coast to introduce the kohlmeise, a valuable insectiverous bird common in Europe and Great Britain, where it is known as the "Great Titmouse." I am well acquainted with Parus major and know from observation that he is death on larva, and if introduced here will no doubt assist in keeping in check the codlin moth. But I doubt whether he will be of much assistance in ridding our orchards of San Jose scale or of woolly aphis.

Years ago, while living on an English estate where the Great Titmouse was abundant, I remember some old espalier apple trees that were much infested with woolly aphis (American blight, as the English call it) and where the titmice had ample opportunity to show what they could do in the way of destroying pests. Yet the aphis lived on. The Blue Tits, Coal Tits and Crested Tits are equally valuable as larva-destroyers. That they will eat the larva of the codlin moth there is no doubt, and on a pinch they will not hesitate to go into the fruit after them. The Jacky-black-caps, a local English name for the Black-capped Titmice, destroy many fine apples in the fall by their eagerness to capture the worm inside. Our own Chickadee (Parus atricapillus) is equally as valuable an insectiverous bird as the Kohlmeise. And to my mind none of the Titmouse family are to compare as orchard-pest scavengers to our Nuthatches, both white and red-bellied, or to our Brown Creeper, or even to the Downy Woodpecker of the Eastern states.

There is this one strong recommendation in favor of the European Titmice: they are not migratory, but live about the same place most of their lives. This is not true of our American insectiverous birds; they nearly all go south in winter.

I would like to see a few of the Great Tits introduced, but don't see exactly how it is to be accomplished. The Titmouse is a fighter, and two males cannot be shipped in the same cage—they will fight to the death every time; this I have demonstrated on numerous occasions. My advice to the enterprising gentlemen in this matter of importation is to go slow. Try a few at first and provide a separate cage for every pair of birds shipped.—J. A. Balmer, Horticulturist, Washington Agricultural College, Pullman, Wash.

The Puyallup Evaporating Company has been incorporated with a capital of $4,000.

Residents of Ahtanum valley have raised a pool of $200 to sink an experimental artesian well. It will be put down on the George Wilson place.