

in the bottom, for drainage, which may be run into a pail or pan. Have the inside box not less than 2 x 2 feet and twenty inches high, with an inside cover next to the ice. This will give you room for a cake of ice, of at least one hundred pounds, and still leave room for meats, milk, &c. If you have a full supply of ice for one Summer it will thereafter become one of the necessaries, without which a family would feel lost.

BUCKWHEAT AS A FERTILIZER.

A correspondent of the *N. E. Farmer* has been experimenting with buckwheat as a fertilizer and sends that paper the result, as follows:

Believing that all carefully conducted and minutely described experiments in agriculture are useful to the farmer and ought to be published, I purpose to give a little experience in the use of buckwheat to renovate an old field.

Early in the Spring of 1869, I plowed up a piece of grass land that was so entirely reduced as not to yield more than three or four hundred pounds of hay to the acre. After the furrows were smoothed it was treated to about three cords of green manure and one barrel of Coe's Superphosphate, and sowed to wheat at the rate of one and three-fourths bushels to the acre. The yield was a good crop of straw, but, the heads being not well filled, the amount of wheat was only eight bushels.

The ground after the wheat was taken off, remained untouched until June, 1870. At this time a considerable crop of clover and other grasses had grown. This was plowed under, and the land sown to one bushel of buckwheat and harrowed in. This came up and grew to be as fine a crop as one could wish to see, and after it had come to the full bloom I had intended to turn it under, but the weather being so extremely hot at that time, the plowing was delayed until the Fall. By this time the seed had matured so as to grow a second crop. The following Spring, (1871,) the ground was cross plowed, and portion planted to peas and potatoes, with nothing but a half shovelful of weak compost of barn manure and muck. Both the peas and potatoes grew beyond my expectation. Another portion, say a little less than half an acre was planted to fodder corn, in drills about forty inches apart. This portion was treated same as the potatoes, plowed and hoed once. The yield of corn was 300 bundles of good size; of the potatoes, fifty bushels. After the plowing, the buckwheat that sprung up between the rows was harvested, and yielded about four bushels.

DISSOLVING BONES.

I beg to submit to you a few hints on the decomposing of bones, for the guidance of those of your readers who may be unacquainted with the process.

In the old country, where bone manure is extensively used, various plans have been adopted to secure their ready decomposition. But to chemistry the practical farmers is chiefly indebted for that method of effecting their decomposition which has of late years been adopted, with the most signal success. To Baron Liebig the agriculturist owes a

deep debt of gratitude for the service he has done the agricultural world in pointing out the benefits which science is capable of rendering to the farmer. He says, in his report on the Chemistry of Agriculture: "The most easy and practical method of effecting the division of bones is to pour over them half their weight of sulphuric acid, diluted with three or four parts of water, and after they have been digested for some time, to add about one hundred parts of water, and to sprinkle the mixture before the plough. In a few seconds the free acids unite with the gases contained in the earth, and a neutral salt is formed in a state of very fine division."

But the difficulty of applying liquid manure suggested other methods, which are now generally adopted. It is found that by mixing the liquid with dry saw-dust, or even dry earth, it is converted into a form more conveniently used by farmers.

The following method for the preparation of bones can be recommended:—

The bones to be used should be broken as small as possible; they cannot be too small as the smaller the pieces the greater the surface presented to the action of the acid, and consequently the more rapid and perfect will be the solution. Having broken the bones into pieces from one to two inches in length, place them in a large cask or sugar hogs-head, add a quantity of water sufficient to moisten the bones, and allow them to soak in it for three or four hours before adding the acid; if the water be boiling, so much the better; then add the acid, and stir it well with the bones. Sulphuric acid is the acid most commonly used; its specific gravity from the manufactory ought to be 1.845; it should be kept in closed vessels, as it attracts moisture rapidly from the atmosphere, and becomes weaker. When strong acid is added to water, a considerable amount of heat is produced. If we mix vitriol and water in the proportion of 5 lbs of acid to 2 lbs. water, the temperature will rise to 266 degrees.

The proportion of acid to be used in making vitriolized bone manure is one hundred weight to acid for every two hundred weight of bones, and the proportion of water should be fully three times that of acid. The water must be applied first to the bones, afterwards the acid. The reason of this is, that when undiluted sulphuric acid is poured upon the bones, violent action ensues, but continues only for a short time, as a coating of gypsum, which is the first new compound formed, covers the surface of the crushed bones with a crust, which prevents the acid from coming in contact with the unaltered portions, and consequently preventing a perfect solution. But by applying the water first, and afterwards adding the acid, the action in complete
—*Cor. Globe.*

A FINE IOWA FARM.

Nettie Sanford, of Iowa, gives *THE PRAIRIE FARMER* the following concerning Oakhill Farm, belonging to M. Briggs, Esq., near Keillogg, Iowa:

"The farm consists of 1,000 acres of woodland, prairie and tilled fields. It has fifteen miles of good pine board fencing inclosing and dividing it. The house is a handsome two-story frame, with wings and porticos, and is situated in the centre of the tract. The barns, tenant houses, sheds, etc., give the premises a look quite like a beautiful village.