

FARM AND FIELD.

BONES AND ASHES.

A [correspondent in the *Country Gentleman*, asking about the value of ground bone compared with that which has been reduced by the use of wood ashes, gives some of his personal experience in the preparation and use of phosphates that is worth reading and acting upon. He says:

"After an experience of several years in softening bones by the use of ashes, I think that each farmer can easily prepare an amount sufficient for his own farm wherever the bones and ashes can be reasonably purchased. Bones are worth \$8 to \$10 per ton, and ashes \$15 per hundred bushels, in this country, and the cost of preparing them need only be a trifle.

"I first began softening them by placing them in alternate layers with ashes in a large kettle, and boiling moderately for two or three days. When softened so that a stick could be easily thrust through the mass, they were boiled nearly dry, and were shovelled into a plank box and ground under a hoe in the same manner that mortar is mixed for plastering. If not dry enough to handle, a few dry ashes were added. This method requires some labour, as the fire needs attention several times each day. If the kettle is set in a brick or stone arch, a cord of wood will be sufficient for two or three tons of bones. The large bones should be broken so that all may soften together. Three bushels of ashes are enough for one hundred pounds of bones.

"After preparing in the above manner what I wanted for use on my corn and potatoes in the Spring of 1881, I had a half ton of bones left through the Summer. In October these were placed in a plank box with ashes, and all the water added that the ashes would retain without leaching. The box was left uncovered and the rain kept the ashes damp, but was not enough to leach them. In May following the bones were softened so that a shovel could be easily passed through them, and nearly all were readily pulverized and made fit for use. The labour and expense is much less in this way than by the use of the kettle and fire. I have since used a bin made by laying a floor of two inch planks on joists six or eight inches from the ground. The floor is twelve by twelve feet, and the sides of the boards five feet high, kept in place by strong stakes driven into the ground. This is large enough to hold four hundred bushels of ashes and four tons of bones, which is as much as I care to use in one year. So far it has not been necessary to cover the bin, as the rain does not leach through.

"I have used this mixture of bone and ashes at the rate of twenty-five bushels to the acre on corn and potatoes with good results. A small handful is applied to each hill after planting, using care to scatter it over a space a foot or so in diameter. I have used some of the best brands of superphosphate for several years, but think the home preparation of bone and ashes is better for potatoes."

SUCCESS IN LIFE.

Without unremitting labour, success in life, whatever our occupation, is impossible. A fortune is not made without toil, and money unearned comes to few. The habitual loiterer never brings anything to pass. The young men whom you see lounging about waiting for the weather to change before they go to work, break down before they begin—get stuck before they start. Ability and willingness to labour are the two great conditions of success. It is useless to work an electrical machine in a vacuum, but the air may be full of electricity, and still you can draw no spark

till you turn the machine. The beautiful statue may exist in the artist's brain, and it may also be said to exist in a certain sense in the marble block that stands before him, but he must bring both his brains and his hands to bear upon the marble, and work hard and long, in order to produce any practical result. Success also depends in a good measure on the man's promptness to take advantage of the rise of the tide.

A great deal of what we call "luck" is nothing more nor less than this: It is the man who keeps his eyes open, and his hands out of his pockets, that succeeds. "I missed my chance," exclaims the disappointed man, when he sees another catch eagerly at the opportunity. But something more than alertness is needed; we must know how to avail ourselves of the emergency. An elastic temperament, which never seems to recognize the fact of defeat, or forgets it at once and begins the work over again, is very likely to insure success. Many a great orator has made a terrible break-down in his maiden speech. Many a merchant loses one fortune only to build up another and a larger one. Many an inventor fails in his first efforts, and is at last rewarded with a splendid triumph. Some of the most popular novelists wrote very poor stuff in the beginning. They were learning their trade and could not expect to turn out first-class work until their apprenticeship is over. One great secret of success is not to become discouraged, but always be ready to try again.

EGGS AS FOOD.

Eggs, at average prices, are among the cheapest and most nutritious articles of diet. Like milk, an egg is a complete food in itself, containing everything necessary for the development of a perfect animal, as is manifest from the fact that a chick is formed from it. It seems a mystery how muscles, bones, feathers and everything that a chicken requires for its perfect development are made from the yolk and white of an egg; but such is the fact, and it shows how complete a food an egg is. It is also easily digested, if not damaged in cooking. Indeed, there is no more concentrated and nourishing food than eggs. The albumen, oil and saline matter are, as in milk, in right proportions for sustaining animal life. Two or three boiled eggs, with the addition of a slice or two of toast, will make a breakfast sufficient for a man and good enough for a king.

According to Dr. Edward Smith, in his treatise on "Food," an egg weighing an ounce and three-quarters contains 120 grains of carbon and 17½ grains of nitrogen, or 15.25 per cent. of carbon and two per cent. of nitrogen. The value of one pound of eggs, as food for sustaining the active forces of the body, is to the value of one pound of lean beef as 1584 to 900. As a flesh-producer, one pound of eggs is about equal to one pound of beef.

A hen may be calculated to consume one bushel of corn yearly, and to lay ten dozen or fifteen pounds of eggs. This is equivalent to saying that three and one-tenth pounds of corn will produce, when fed to a hen, five-sixths of a pound of eggs; but to produce five-sixths of a pound of pork requires about five pounds of corn. Taking into account the nutriment in each and the comparative prices of the two on an average, the pork is about three times as costly a food as the eggs, while it is certainly less healthful.—*Boston Journal of Chemistry.*

THE CARE OF FARM MACHINERY.

We have noticed that plows last, on an average, about three years; waggons, eight to ten years, reapers, five to eight; drills, eight to ten. We think these figures are fully as large as the truth

warrants. We know of many implements that have not lasted so long, and of many which have lasted much longer. We to-day can point to waggons that have been in constant and hard use for twenty years, reapers that have stood the wear and tear of liberal use for more than fifteen years, drills that have been in use as long, and other agricultural implements that have stood the wear of fully twice the average age of such implements. These implements were not made of unusually good materials nor were they suffered to lie idle. They were put to constant use. What, then, is the secret of their greater endurance? It is simply this—they were taken care of. When not in use they were put away, and put away properly.

These implements not only lasted longer, but while they were in use they very rarely failed. They were always ready for work. The reapers did not break down in the middle of harvest and compel all hands to lie idle while some one went to the railway station to get repairs; the drills did not fail just when the wheat ought to be sown; the waggons were not always breaking down and occasioning delays and vexations. Another thing may be said in their favour, and that is that they always did good work. The reapers cut a smooth stubble and put the grain down in good condition; the plows did not refuse to scour; the drills put the wheat in just as a first-class drill would; and these implements did good work not only while they were new, but till last year they were used.

—*Ohio Farmer.*

UNNECESSARY STEPS.

How many of our readers have ever thought of the significance of a single unnecessary step in the performance of those duties of the farm or household which must be attended to several times each day? Suppose it be only in the distance from the well to the kitchen, or from the feed-bins to the manger, and that it be traversed but once each way, morning, noon and night, the total unnecessary travel in a year is more than a mile. But how many of our houses or barns are so arranged that all the daily duties can be performed with so little waste of travel? How many spring-houses are built at the foot of hills twenty, forty, sixty or more yards from the house, to which the weary housewife must trudge several times in the preparing of every meal, thus multiplying this one mile by twenty, fifty, or often a hundred! How many barns are likewise unnecessarily distant from the dwelling house, or inconveniently arranged with respect to their various parts, so that the care of the stock involves as many more miles of travel for the farmer! This is one of the little wastes unnoticed because so small, yet constantly dripping, dripping, which in the end makes many a farmer poor, and drives his wife into an untimely grave.—*Farm and Fireside.*

WHERE AND HOW TO APPLY FERTILIZERS.

It is often difficult to decide—for barn-yard or stable manures, or for any artificial fertilizer—whether to put in the hill or broadcast it; and whether to apply it on the surface or bury it deeply. Here is a hint or two. If not strong enough to injure the first tender roots, a little manure near at hand gives the plant a good send off, like nourishing food to the young calf or other animal; the aftergrowth is much better if the young animal or plant is not dwarfed by imperfect and insufficient diet. Therefore, drilling innocuous hand fertilizers in with the seed is useful, as in putting some well-rotted manure or leached ashes into hills of corn, potatoes, indeed with all planted seeds. But there are good reasons for distributing