Cultivation of Buckwheat.

At a recent meeting of the New York Farmers' Club an address was read on the Culture of Buckwheat, from which we extract as follows. –

Buckwheat is a plant known to almost every part of the world. It is eaten in Switzerland and the southern parts of France, and in Flanders its cultivation is a considerable branch of industry, while in China, Japan, and Russia, it furnishes a large percentage of the food of the inhabitants. It was brought into Europe from the northern part of Asia, and was cultivated in England as early as 1597. A large proportion of the buckwheat raised in the United States is cultivated in Ohio, Pennsylvania, and New York. Buckwheat thrives well on almost any dry soil, even of the poorest description. Indeed, the lighter soils are best adapted to it, as on rich earth it is liable to run too much to straw. There are several reasons besides this why buckwheat is extensively cultivated, namely: It calls for but little labour, and the period in completing its growth is very short. If sown in midsummer, it usually has full time for attaining maturity. Still, the success of buckwheat is very precarious. In the first place, it is susceptible to the slightest frost, and is remarkably affected in the several stages of its growth by the weather to which it is exposed. Immediately after sowing it requires dry weather, in fact, will spring up best in time of great drought; but after putting forth its third leaf, it needs rain in order that its leaves may be developed before the flower comes, which soon follows. During the flowering time it requires alternate rain and sunshine to facilitate its growth and enable the flowers to set. Buckwheat is incapable of withstanding violent eastern winds, which causes it to wither before its flowers are set. After flowering, the plant again requires dry weather to bring all the seeds to maturity at the same time, and thus insure an early harvest. I also believe that the success of the plant depends not only o the general state of the weather throughout its growth, but the particular time which may have been chosen for sowing, a week earlier or a week later often making a vast difference. Hence many farmers, to insure a perfect crop, sow different portions at different times. The seed should, according to my experience, be simply covered up with a harrow. The ripening of the grain is very unequal, and for that reason it ought to be cut at the time the greatest quantity is ripe, and the rest will ripen while the crop is lying on the ground after cutting. The small amount of fodder produced is, perhaps, the principal objection to the extension of the culture of buckwheat, for the straw being of little value, if the grain fails, the labour of cultivation seems lost. But notwithstanding all these drawbacks, its cultivation, I think, should be more general than it is, especially where land is abundant and not of a very high order of fertility. A purpose to which buckwheat has been applied from time immemorial, and for which it seems well adapted from its quick growth, is ploughing it down when green, as a manure for the land, but I think that where a good system of agriculture is established, and a proper combination of the practice of tillage and feeding live stock exists, a green crop, when raised, will be more advantageously applied to the feeding of animals, and the manure, which the consumption of it produces, afterward applied to the ground. In addition to the flour which gives us all our buckwheat cakes during the Winter breakfasts, this grain can also be applied to the same purposes for which the grain of the cereal grasses can be used. The seeds of the buckwheat are fed with advantage to horses, to poultry, and to hogs. In conclusion, I would add that I think the roller injurious to its culture, and find that in Ohio we can raise a finer quality of buckwheat to the acre than elsewhere throughout the country; but whether this is the result of some contingent circumstances, or of some permanent adaptation of the soil and climate to the grain, I am not able to decide.

Superphosphate and Top-Dressing.

I top-dressed about half of a clover field one year ago last winter, and it protected the clover on that portion of the field, while on the other part it was nearly all killed by the extreme cold and dry weather. The result was, that portion yielded four times as much pasture as the remainder of the field. My wheat did not yield as much, where it had been top-dressed last season, as formerly, but it yielded three times as much as where not top-dressed, and the yield of clover will be more than double this season. I had a field of corn that yielded over 150 bushels of ears per acre, last year, without any fertilizer, the effect of previous surface manuring. My reasons for using phosphate are the following: I do not have manure enough, and it requires a great deal of labor to pile it, so as to have it sufficiently rotted for wheat. Then it must be applied in a busy time of year; and if the field is far from the barn it costs more to haul and apply it, than the entire cost of the phosphates. By using phosphate for wheat, it leaves the manure for grass lands, and it can be applied to them during the foddering season, directly from the stables. This not only saves handling, but is done when teams are at leasure, and other work is not pressing, and there is an immediate benefit derived from it. As to the effect of phosphate: I think it is greater than a dressing of manure, on any soil Good judges estimate the yield where it was used, at fifteen bushels more per acre than where it was not used. I have not heard of a single failure where it has been used in this country. All claim that it will double, or more than double the yield of wheat. If Mr. Ewer will come and see my wheat, I will show him a field where the surface is flat, the soil a clay, and the wheat almost a failure on the portion receiving no

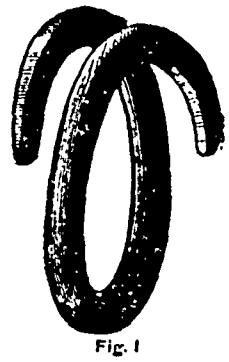

Fig. 1

phosphate, while where it was applied it promises a heavy crop. On other portions of the field where it is more rolling and a gravelly, loamy soil, there is but little difference. The facts are, where the phosphate was used the wheat presents a splendid, uniform appearance, and where it was not, and no fertilizer used, the greater portion will be almost a failure.—*Cor. Am. Rural Home.*

Open Links.

A correspondent of the *American Agriculturist* publishes two samples of open links suitable for emergencies, which we here reproduce.

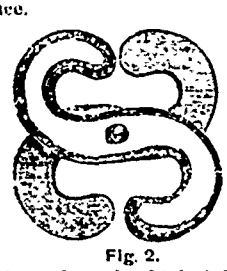

Fig. 2.

One of these (fig. 1) is made of ⅜-inch iron rod, and when used to connect a broken chain, is simply closed by a blow from a hammer or a stone. There being no rivet, the link is not weakened in any way. Figures 2 and 3 show another link, made of malleable cast iron, in two parts, which are fastened together by a rivet in the centre. This link is seen open at figure 2, and closed at figure 3. A few of these links may be carried in the pocket, and are ready for

Fig. 3.

instant use in case of an emergency. The last mentioned links are kept for sale at the hardware stores, and are known in the trade as Kirk's links; the first named may be made in a very short time by a blacksmith, or any farmer who has a workshop and a portable forge.

Points in Shocking Wheat.

There is altogether too much carelessness practised in shocking or stocking of wheat, says the *Rural World*, and it results in great loss to the farmer, especially when the harvest season is an unusually wet one. The object in shocking wheat is to keep it dry previous to the time it is put in the barn or stack or threshed. To pile up the bundles, as is often done by inexperienced men or boys, is a ruinous course to pursue.

If grain is neatly and properly shocked and capped, that beneath the caps will not be injured, even though there may be a large amount of rain. But the bundles must be even and not too large, and they should be tightly bound, for they will not only keep out the rain better, but the small sheaves will dry out more readily than the large ones. Most farmers, of course, know how to shock wheat properly, but the trouble is, this important part of the work is too often entrusted to boys, who have neither the ability nor the will to do it properly. The best way to set up a shock of twelve sheaves is this: Set up six bundles, three on each side, thursting the butts (once only) of the bundles firmly on the ground, then lean the heads toward each other; then place two other bundles on each side of those already set, and draw the heads of all ten sheaves compactly together; then take two more of the best bound sheaves for caps, and, holding one of the sheaves before you—heads of grain up—break it down over the band a handful at a time; then open the butts without altering the position of the sheaf at all, spread it considerably and place it on the head of the shock; now break the other cap and place it on top of the first one, but from the opposite side of the shock, laying one over, but not across the other. If, when the shock is completed, a dozen or so of the heads of the top cap are tucked under the band of the lower cap, neither will be very easily blown off. Wheat carefully shocked in this way will stand a great deal of exposure without being injured.

Experience has demonstrated the fact that early cut wheat will stand more exposure to wet weather than that cut later—for germination cannot commence until the grain is mature, and wet weather destroys the process of maturation, so that in many instances early-cut wheat, well shocked, has passed through an extended wet spell before it matured, and come out wholly unmjured.

Whether the shocks should be opened out to dry during a wet harvest depends very much on the condition of the atmosphere. When damp, hot, foggy weather occurs, such as promotes mildew in badly-ventilated rooms, then open the shocks and air the bundles whenever the weather will permit. If, on the contrary, the weather is cool, the preceding plan is not always advisable. If the harvest season is a very rainy and sultry one, the cap-sheaves should be stacked by themselves, as much of the grain in them will be sprouted. The handling and grading of grain is now reduced to a system, and the farmer will lose twice as much as he gains by allowing his damaged grain to be mixed in with that which is not.

The Compost Heap.

No amount of experiments, talk, and large results will draw farmers in a body away from keeping live stock, and the manure pile, and turn them wholly to "chemical farming." The compost heap will still be an adjunct of the prosperous farmer's barn-yard; nor would we have it otherwise. There is a great deal of unnecessary work expended upon this plant food factory, however, in repeated shovelings to prevent overheating. Thorough mixing and proper pulverization are of course essential; beyond this, work spent in shoveling is thrown away. Heating is the oxidation by the oxygen of the air of various substances in the compost, and is necessary, to a certain extent, for the decomposition of the coarse materials. Overheating is usually checked by frequent stirring. But this only checks it for a time, and afterwards, by the increased access of atmospheric oxygen, the heating (oxidation) is accelerated. A better way is to pack the surface down solidly, by simply treading upon the heap with the feet (after pulverization) or, still better, to spread a little earth over the pile, taking care to compact it somewhat. Either method tends to exclude air, and thus prevents too rapid oxidation. By adopting this practice so far as advisable, a large proportion of the expense in making compost may be avoided.—*Scientific Farmer.*

The Quality of Manure.

The value of animal excrement as manure depends not only upon the animal, but largely upon the kind of food it receives. Experience has clearly demonstrated that if the food received is rich, the manure is also rich. There are, however, other modifying circumstances which go to determine the quality of manure, such as the age of an animal, its condition as to flesh, etc. A growing animal cannot furnish as valuable manure as one that is fattening, since the growing animal requires nitrogen to make blood and muscular fibre, and phosphoric acid for bones, while a fattening animal requires only enough of these substances to supply the natural waste. Again, the manure of an animal that is giving milk is not as valuable as that of one that has no drafts made upon it. The excrement of animals is valuable in proportion to the amount of