FROM CONTINENTAL CORRESPONDENCE OF PRAIRIE FARMER.

In several parts of France, Lot, Tarn, etc., several rich deposits of phosphates have been found. It is English speculators that buy up and work the beds, the French hesitating to invest though patriotically appealed to to do so. There is an eviden desire in France to find in phosphates and vitrates a substitute for guano; during the last twelve months there was a remarkable increase in the sale of commercial manures. In the neighbourhood of Nantes the trade was peculiar. There the farmers have had a prejudice that no manure was good which had not a "black look." It was there that phosphates from their color became unfashionable, and turf was artfully reduced to powder, and, thanks to its color, met a ready sale as animal black. At present the most barefaced frauds are committed in Nantes. The coarse sand of the Loire is reduced, by powerful machines, to powder and mixed with phosphates, or Britany contributes its schist, which on being reduced to powder, is elegantly made up in bags, labelled, and returned to the Bretons as pure phosphate!

With the view of checking frauds in manures, as well as to secure a diminution of price, several local farming societies have formed themselves into companies to purchase their industrial manures *en bloc* The price of these manures has, since the war, augmented some 25 per cent. One pound of nitrogen, as now estimated, costs one franc and a half; formerly the price was a little over one franc. Then the loss of live stock by the war and the plague, and the diminished supply of manure, may be judged by the figures that ,1869, France employed but 12,000 tons of superphosphates, whilst in 1871 she used 6,000 tons.

Lucerne is in this country regarded as the "Providential forage" plant, and exhibits a marvellous development when irrigated—a process that France has much neglected. It is acknowledged that artificial grasses can be more profitably replaced by lucerne. In Saxony this latter plant works wonders on light soils, when plowed in green as a preparation for a grain crop. French farmers adopt the same plan; they sow about twelve pounds of lucerne per acre with the barley in February, plowing down the lucerne after the harvest, as preparation for winter wheat.

TOP-DRESSING MEADOWS.

A writer in the New York *Times* says: Lands that are natural for grass, such as are most of our river bottoms and clay uplands, need no plow to keep up their fertility. By top-dressing they can be kept light and productive indefinitely.—We have seen upland meadows that had not been plowed for half a century, and the quantity and quality of grass they produced are rarely excelled. The quality especially was excellent.

We are confident that, with proper treatment, the quality of hay raised on old meadows improves from year to year. It becomes finer, and there is a greater variety. Let the land, after it has produced two crops of grass, be top-dressed in the fall, and instead of the grass running out, as it is inclined to do when let alone, severely, it is wonderful to see what a variety of new grasses come in.—The turf thickens, and instead of two varieties of grass, we get half a dozen, and in the course of a few years a dozen; and even two dozen have been counted growing on the same square rod.

FARMING IN THE WEST.—A Kansas farmer asks the question: Does it pay to raise oats? To solve the question he enters into a minute calculation of a debit and credit account of ten acres of oats, and arrives at the conclusion that it does not pay. The crop of ten acres would cost $95, not including rent, taxes or the board of laborers employed, while the oats raised—400 bushels—40 bushels per acre, would, at Western prices (20 cts. per bushel, realize only $80. Such is farming in Kansas.

PRACTICAL LESSONS IN FEEDING HOGS.

Some years ago, when I was just beginning to farm, I was desirous of knowing the best way of fattening hogs, and I determined to try the different plans, and also to ascertain how much pork a barrel of corn would make. I made a floored pen and covered it in; weighed three hogs and put them in the pen. I also weighed three of the same size and put them in a dry lot—average weight one hundred and seventy-five pounds. I fed six barrels of corn to the six hogs. They were forty days eating the corn, with a plenty of salt and water. The average gain was seventy-five pounds. The hogs in the lot gained the most. One that was fattened in the lot gained eighty-eight pounds. One in pen gained eighty-four pounds; the other four not so thrifty.

These hogs were about fourteen months old when slaughtered. I put them up to the 25th of October. There was a great deal of sleet and snow during the month of November, which gave the hogs in the pen an advantage they would not have had if the weather had been favorable; they were each fed on the same quantity of grain. It also shows that one bushel of corn will make fifteen pounds of pork, and that the six barrels of corn made eleven dollars and twenty-five cents worth of pork, at two and a half cents per pound, and that the farmer gets twelve and one-half cents for his labor of feeding per bushel. Hogs will fatten faster in September and October than they will in colder weather.

Another very important question or inquiry suggests itself from the foregoing, and that is:—What is it worth to raise hogs to the average weight of one hundred and seventy-five pounds? It may be difficult to determine the exact value of the grass, clover and grain fields that the hogs feed on while growing to the gross weight of one hundred and seventy-five pounds, but with these assistants I can raise a hog to weigh one hundred and seventy-five pounds and over, with one barrel of corn. It will be seen from these estimates that two barrels of corn, with the advantage of grass, clover and grain fields, will produce about two hundred pounds of net pork to two hundred and fifty pounds gross.

Hogs do best in large fields with plenty of water, and the farmer who cuts up his corn in the months of September and October, and hauls it out on his fields, will be amply paid for his labor, in the improvement of his land, from the stalks and manure of hogs. It is a great saving of labor to turn the hogs in the field when the quantity of hogs and the size of the field suit.—*Cor. Ohio Farmer.*

OX-TEAMS VS. HORSES.

In this go-ahead age it is a dismal sight to see an able-bodied man toiling along the road at the slow pace of a pair of oxen, and we have probably had as much to say as any one in favor of the substitution of the faster horse or mule team.

We are bound to confess, however, that the picture has another side which is worthy of careful consideration. Ox-teams are slow, it is true, but, they are effective, cheap, and convenient. Horses are a necessity for regular road work and for many operations on the farm, but it is almost indispensible to have for occasions considerably more team force than is needed regularly. If the extra work of plowing, harvesting and hauling manure is done by horses, we make up our minds to have them more than half the year eating off their heads in idleness, and to be in constant danger from loss from the thousand ills that horse-flesh is heir to. To state the case in a nutshell, an idle horse is idle capital, invested in an extra hazardous risk, without insurance, and consuming itself month after month.

Oxen, on the other hand, if properly treated, are a tolerably safe storehouse of working power. When not at work they are laying on flesh, which is worth so much per pound in the ready market, if we choose to sell, or which may be taken out again in the form of hard work whenever we may call upon it. In case of accident we may realize the full amount of our investment at the hands of the nearest butcher. An idle ox is active capital, the investment is safe and well insured, and his fodder is pretty certain to get paid for, either in flesh or in work.

The difference in returns in the two cases is a most important one, and the extra cost of teamster in the use of the slower animals is probably well compensated for by the saving in saddlery bills. And, after all, the question of speed is of less consequence than we often imagine it to be. We have lately had and opportunity to witness two teams in use in our neighborhood, one of horses and one oxen, both engaged in similar work (mainly on the road), and we have come to the conclusion, against our preconceived notions, that "slow and steady wins the race." The oxen seem to do more work in a week than the horses. They are three pairs of young cattle, growing thriftily, and so paying a profit on their work when not overworked—costing less to buy and less to feed than a single pair of horses. When they are needed for work, they are taken up and fed enough grain to keep them hearty. When their work is finished they are turned out to "eat, sleep and grow fat." When each pair have got their growth they are sold to the butcher, and a part of the price replaces them with younger ones.

Starting our farming life with a prejudice against the use of ox-teams, we have been induced gradually to substitute them for horses, until now we have only enough of the latter for our road work, and depend on oxen for all emergencies. In work and in flesh we get a full equivalent for all the food they consume, and we save the heavy cost of keeping idle horses, the risk of a total loss of value by accident or death, and the certainty of depreciation by reason of old age.—*Exchange.*

CARRYING ALL THE PARTS IN FARMING.

Rotation in farming is understood as an established necessity. This with respecte to the crops; and the dairy is also included. This even where the land is most favorable for grain—where it may readily be worked and the soil is rich. In this case many farms do without sheep, sheep being put on a hilly and less accessible land. Sheep are probably here the most benefit. But they will add to the income and benefit of any farm. All the branches, at least as a general thing, should be prosecuted. This, for one thing, to meet all the market. If one or more fails the other may succeed, some one or more products will always succeed, either in growth, be affected by the season or otherwise, or in the market. It is seldom, if ever, that all the products fail, both in productiveness and price. Wool and mutton, and sheep in consequence, have been a loss to the general farmer for years till now recently. The fruit crop the present year is in the same condition; so are potatoes; so are some other products. Thus the products of the farm is fluctuating, and this yearly to a greater or less extent. To prosecute one or a few branches alone is very risky; ruin is too often the result. With the dairy this has less force; yet for the past few years there has been loss; loss with inferior and less properly managed heads. What was a discouragement; now it begins to look up again. Thus changes are constantly occurring. We need not point out the folly of being governed by these changes; and yet this is done. There are two ways to take advantage of the changes. One is to carry all the branches (where climate and soil will admit); the other is to thoroughly prosecute what is done—better culture, better stock, better treatment. During all the time of the low price of wool and loss in sheep, there were those who made it pay. They had good lambs and a near market, and secured good fleeces from their well-kept flocks, and their mutton being of a good quality, commended a fair price; the whole put together showing a fair profit on the outlay; and when the times changed and wool and mutton were in high demand, they met their golden opportunity; they did not need to buy and then run the risk of a fall in the price. So with all kinds of produce of the farm. The best always finds a sale; and if largely produced, on judicious outlay, cannot help but remunerate when a good market is readily accessible. Cattle and sheep should be kept as well as the other usual stock of the farm. Poultry on a small scale can be made to pay well. But there must be good breeds and good treatment; haphazard will not do. What farmer cannot have a place set apart for fifty or a hundred hens! And if no more than a dozen sheep are kept—the best kind, carefully fed and attended to, each sheep averaging its lamb or more, and often first quality as as to size and condition, and the amount and quality of wool to correspond—who can not see that here is a nice little income with a fair precentage of profit? You can make much or little out of a sheep. You thus have your lambs to sell, your wool, your eggs, a porker or two, a good surplus of butter from a few cows—you have your oats, your wheat, your corn, your clover and corn stalks to feed, and your timothy to sell; you have some clover seed to dispose of, some apples, may be some other fruit, grapes, berries, vegetables; you raise a calf or two, you thus have a chance for a perfect rotation, extended or varied at pleasure. Your clover enriches your soil; so do your pasture and meadow properly managed, your corn improves your land. In a word you have an interest in the market of every farm product, and you cannot fail to get a high price for some of them every year, and a loss on no one with proper attention. Do what you do in the best way, then will you ride at the top of the wave.

HOW CLOVER IMPROVES THE SOIL.

Professor Voelcher, the eminent agriculturist, thus explains how clover improves the fertility of the soil:—All who are practically acquainted with the subject must have seen that the best crops of wheat are produced by being preceded by crops of clover grown from seed. I have come to the conclusion that the very best preparation, the very best manure, is a good crop of clover. * * * A vast amount of mineral manure is brought within reach of the corn crop, which otherwise would remain in a lock up condition of the soil. The clover plants take nitrogen from the atmosphere, and manufacture it into their own substance, which, on decomposition of the clover roots and leaves, produces abundance of ammonia. In reality, the growing of the clover is equivalent, to a great extent, to manuring with Peruvian guano; and in this paper of mine I show you that you obtain a a larger quantity of manure than in the largest dose of Peruvian guano which a farmer would ever think of applying. * * * It is only by carefully investigating subjects like the one under consideration that positive proofs are given, showing the correctness of intelligent observers in the field.

AGRICULTURAL SCHOOLS.

For some years the government of the United States have been trying the experiment of State Agricultural Colleges; with what success the following extract from the *American Agriculturist* informs us:—The general failure of the efforts to make Agricultural Colleges what they were designed to be, seems to have turned the ideas of private parties towards attempting something which may take the place intended for them, or at least do their work. We understand that Thomas Judd, a wealthy farmer of Illinois, has about completed arrangements for opening an Industrial Agricultural College, in which practical and scientific studies shall be open to young men and women. A farm of 100 acres will be attached to the college. Competition is said to be the life of business, it may also help our agricultural colleges.