

there for wise purposes. Charcoal placed in the way of urine absorbed it, so did plaster. Whoever does this, and keeps his crops on the farm, has more manure in one load of dung than one who neglects it has in six. Cattle ought to be well kept in winter, and men ought to keep stock enough for the farm, and farm enough to keep the stock. When a man depends on straw and browse to keep his cows, the butter is bad in summer, and his animals hardly live, when well kept they keep him well. He who begins following new fields at the second or third crop would find it difficult to work among the stumps. He had seen a neighbor cut bad crops after good fallowing; but peas and oats were better,—and he who ploughs in fall, and manures, and cultivates in his peas in the spring, has a crop instead of his neighbor's fallow; and after cross ploughing in the fall, has his land in good heart. Peas make good clean land, and if fall wheat be not convenient after this, spring crops come in well. A Yorksherman had told him he had broken up an old pasture (eaten quite bare) in June, whilst waiting for hay, harrowed it well, after that, on the 20th of September, ploughed for wheat, and got an excellent crop, though the field looked very rough indeed. He would question if a dry furrow in old pasture, well harrowed, would not rot before September and give a good wheat crop without much labor.

After a few words from the Chairman, a meeting was called for Thursday, the 9th of February, at Lappin's Hotel,—subject "Fences."

Thanks were then voted to Mr. Turner for his conduct in the chair, and to Mr. Dale for his paper, and the meeting separated.

EAST OXFORD FARMER'S ASSOCIATION ON DRAINING.

At a Meeting of this Association recently held at the Town Hall, there was a very interesting and important discussion upon the subject of draining, of which the following is a brief report. It was opened with a practical address from Mr. Alexander, from which we are only enabled to give a very short extract:—

"He observed that the subject which had been appointed for discussion upon this occasion, must soon become one of the most important questions with the Farmers of this Province. Both science and practical experience agree in pronouncing a proper system of draining to be the greatest Agricultural improvement in modern times. It may no doubt be alleged that to carry out any system of draining in a thorough and permanent manner requires considerable outlay, and that in a new country where the price of labor is high, the introduction of all such improvements must be gradual. However our prospects are becoming better every day, and if the present remunerative prices continue, it will pay the farmer to adopt many of those artifices by which the natural productiveness of the land will be increased. The beneficial effects of draining are be-

coming well understood. The removal of all superfluous moisture from the surface and subsoil induces a more healthy growth of the plant.—Where water lodges in the soil, the crops receive little benefit from the genial warmth of the sun, which is expended in the natural process of evaporation, while too great an excess of vegetable matter is generated for the growth of our valuable grains. The farmer uses the very appropriate terms *cold* and *sour* when speaking of such lands, upon which there is a vast amount of labor and seed thrown away every year without any return. Where is the remedy? By *draining the soil*, it is rendered porous for the free admission of atmospheric air, one immediate result of which, will be the rapid decomposition of those vegetable acids which may have been accumulating for ages, thereby producing according to the testimony of our best authorities, an abundant supply of carbonic acid, the principal organic element from which plants derive their nourishment. From the increased porosity consequent upon draining and thorough cultivation, the natural warmth penetrates to a greater depth and the soil must then benefit to the fullest extent from the fertilizing properties of the atmosphere and rains. Mr. Hind illustrates with great clearness their wonderful agency. How their silent but never ceasing work is to build up the organic structure both of the soil and plants, while they also serve to decompose and bring into action the mineral or inorganic elements. It will be observed that what we call fertility is a properly balanced supply of those in the soil, and it is important that the farmer should study the laws which regulate the structure of vegetable life that he may expend his labour to the best advantage.

A very important question arises. What lands are most benefited by draining? The attention of the farmer will naturally be first directed to all those parts which suffer from too much moisture, and seldom bring any crop to maturity. Professor Johnson remarks of clay soils, that when wet they are too close and adhesive, and exclude the air from the roots of the growing plant, but when the water is removed, they crack in every direction, become open, friable and mellow, and are more easily and cheaply worked. But all soils resting upon a hard or clay bottom must be benefited by draining. Many farmers are of opinion that it will benefit even soils of a lighter texture. So far we may coincide with this view that the deeper and more thorough the cultivation, the farther the roots of the plants will descend, and suffer less from the casual droughts; still in a country where labour is so expensive, the draining will doubtless be confined to those lands which more pressingly require it. But it will be necessary that we should at once come to the question of the evening:—Namely, as to the most economical and advantageous system of drainage for this Province.

Mr. Henry Peers (Vice President) remarked that as the construction of either temporary or permanent drains involves considerable outlay, it would be well first to enquire whether the farmer would be sure of a profitable return. Upon this point he was prepared to offer one or two