

They were acknowledged really to feed the plant, since they supplied those things out of which its several parts were built up, and without which they could not be satisfactorily completed. And if the soil was less productive in after years, in consequence of the application of these substances, it was because the crop had extracted from the soil more than the manure had given to it. The so-called stimulant supplied pot-ash, or soda, or lime only, to the soil, and, getting these readily, the plant grew rapidly; but it gathered out of the soil, at the same time, magnesia, sulphur, and phosphorus, without which it could not grow. The large crops which were taken off, therefore exhausted the soil of these latter substances; and unless these were added again in some form or other, the soil must remain impoverished, and more or less unproductive. If the builder have abundance of stone or bricks, and we give him mortar in addition, his walls and houses will rise rapidly; but the faster they rise, the sooner will the bricks be exhausted; and when this happens, we shall look in vain for an advance in his work, if we continue to supply him with mortar only. Give him a new supply of bricks, however, and he will start afresh. So it is with the soil. The so-called stimulants excite the plants after the same manner that the mortar excites the builder—leave behind a languor or exhaustion of a similar description, to be removed, also, after a similar manner.—*Edinburgh Review.*

DARLINGTON FARMERS' CLUB.

At the monthly meeting of the Darlington Farmers' Club, held on Monday last at the office of Mr. Dixon, Land-agent, Edmund Blackhouse, Esq., of Polam Hill, Darlington, was elected a member of the club. The subject under discussion was "The best method of destroying coltsfoot and other deep-rooted weeds." In the absence of the chairman, Henry Chapman, Esq., who has been for some time prevented by illness from attending the meetings, the vice-chairman presided, and on introducing the subject, observed that coltsfoot, he believed, was a weed which was very difficult to eradicate; for, however well certain descriptions of land might be cultivated and cleaned, yet, if addicted to the growth of this weed, it would frequently make its appearance in the crops in spite of everything that could be done; and therefore, if any member present could throw any new light upon the subject which would assist in its eradication, he would certainly render a very desirable service to the meeting. After an animated conversation of considerable length, the meeting was of opinion that coltsfoot, being a perennial and very deep-rooted weed, and one which the members believe is propagated both by seed and by the division of the roots, a very small particle of which roots, when separated, will grow. It was unanimously resolved that the most effectual mode known of keeping down coltsfoot and other deep-rooted weeds was to plough deep and cultivate the land thoroughly and well, taking care to gather off every particle of the roots which can be found; and in growing crops, or wherever coltsfoot makes its appearance on the land, always to take care to hoe it up, or cut off the flower to prevent it from seeding. The following subjects were then adopted for the next three months' discussion;—June 23rd, "On the hoeing and management of the turnip and potato crop;" July 21st, "Lime and common salt: their uses and application as manures, either singly or in combination with other substances;" August 18th, "The comparative advantages and profitable cultivation of old grass land, as compared with arable land of similar quality."

PARK FARM, WROTHAM, KENT, JUNE 10, 1845.

"I see by the newspapers that you are advocating the system of deep-draining. Now, as there is a great deal of draining about to be done throughout the country, I think the landowners and farmers should pause a little before they go into this work to any extent, and should endeavour to ascertain the best and most effectual mode

of doing it. Practice and experience have taught me to have the drains from 42 to 50 inches deep, and from 24 to 34 feet apart in the strongest clays; and from 48 to 60 inches deep; and from 50 to 60 feet apart in soil of a more porous character. Such draining will lay the land perfectly dry; and no one can conceive the benefit arising from deep drains compared with shallow ones, unless they have experienced it both in crops and tillage. I will endeavour to explain to you how I have been draining for the last 30 years, and what the results have been. My idea at first was that I could not go too shallow; and accordingly I put my drains from 20 to 24 inches deep; but finding very little benefit from so doing, I was induced in the year 1830 to drain a field 3 feet deep, that had previously been already drained only 2 feet. To my surprise I found the shallow drains became useless. I then tried a drain of 4 feet in the same field, and found that this deepest drain, after rain, always ran the first and the longest carrying off more than double the quantity of water.—This convincing fact made so strong an impression upon me, that for the last 15 years I have been draining my land, that was drained 2 feet deep, over again 4 feet, and with the same satisfactory result as in the instance just cited. I put my drains perpendicular, that is to say, up and down the field, to bring both sides into action; and although I was at first censured by many for pursuing this plan, the same parties are adopting it, being convinced by the stubborn facts they have witnessed as my results. Before my land was deep-drained, it had always furrows to take the top water away; now, however, I have none, for by taking the bottom water away, the top will follow. I could give you volumes of proof on this subject, having done a great deal for landowners at several places. I will mention a gentleman in Hertfordshire, who came to inspect my drains last year, and saw their good effects. He wished me to drain one of his farms: I did so, taking a man with me who understood the work. I met some farmers there, who said I must be insane to think that the water would get through so strong a soil into a drain so deep; and yet I have now the tenant's letter in my possession, informing me the plan had perfectly succeeded; that the deep drains ran like a pump, and that one of his neighbours had sent to borrow his draining-tools for the purpose of making similar drains. I should be happy to receive a visit from yourself, or any other gentleman, and show the benefit of deep-draining compared with that of shallow. About three years ago, the subject of drainage was brought forward at the Maidstone Farmer's Club, when I stood alone in advocating deep draining; it was again introduced a short time since, when many had become converts, and stated that they would not lay their drains tilts shallow, even if their landlords would give them leave to do so.—THOMAS SPENCER."

Agricultural Buildings.—Mr. Charles Miles, of 15, St. James square, communicated to the Council a paper containing a review of building and mechanical appliances, appliances for agricultural purposes, and various plans and drawings illustrative of his proposed arrangements; his suggestions having reference to the following topics:—

1. The internal and external drainage of the land on which the farm-buildings, &c., are erected.
2. The collection of rain water in a tank,
3. The conveyance of liquid manure into tanks by means of water-tight drains.
4. The adoption of hollow concrete walls where good brick and stone cannot be obtained on reasonable terms.
5. New asphalted floors throughout, cheap, durable, and water-tight.
6. New and improved construction of weather and fire proof roofs, without incurring an additional outlay.
7. Application of heat to water in the preparation of food, and warmth, and ventilation to the air in all situations where required.
8. The employment of horse or engine-power for general purposes.
9. Improved mode of separating and storing grain.