unless they are incorporated with the land in too great abundance. Farm-yard manure has stood the test of ages: if prepared with judgment, according to the principles established by chemical discoveries, it will contain all the elements of vegetable organization; and if by age, or improvident management, it shall have lost its ammonia, become too much carbonized, and, to a corresponding extent *effete*, it can be restored by guano, so far as the ammoniacal salts are concerned. And here, by the way, I venture to suggest that in this manner guano can be employed to the utmost advantage, and without any risk or danger to young seedling plants. All land possesses more or less of organic matter; it is indispensably necessary that it should do so, otherwise plants could not be supplied with those hydro-carbonous substances which constitute their bulk. Now, farm-yard and other decomposable manures when deposited in the ground (the deeper the better when the straw and other fibrous matter is little reduced) are converted by gradual fermentation into humus—that product of animal and vegetable decay which cannot be imitated by art, but which, by a sovereign law of nature, is inevitably present in all land that is duly cultivated. Hence, and by induction from observed facts, we must insist upon the incorporation of that manure which is supplied by the processes of the farm itself. Fermenting matter must be employed, and the ground is its natural recipient, for thereby heat becomes developed, gases extricated and retained, in a position where they are in close contact with the roots of either vegetables or shrubs, which thus can select and absorb such as are suitable to each. I can by no means admit the theory of Liebig so far as to restrict the nutrition of plants to the absorption of carbonic acid only, whether by the leaves, or by the spongiolets of the roots. The decomposition of humus, or of more crude vegetable matter, must evolve other gases: and as every plant will require hydrogen, and many the compounds of hydrogen and carbon, and of nitrogen, it follows that those gaseous products resulting from fermentation will be duly absorbed and assimilated.

It has been asserted that rotten dung contains more humin (the old name for humus), weight for weight, than fresh dung, and therefore, that if the fertilizing power of manure is in proportion to the quantity of humin which it contains; and if it can be proved that the quantity of this is as great in black spit-dung as in the more bulky form of unfermented dung, then the concentrated state would certainly be preferable in point of economy every way. The suggestion was plausible, and so far as mere top-dressings were concerned, might be correct; but as the preparation of humus in the heart of the soil at a considerable depth below the surface, is the object which ought to be aimed at, we claim the right to believe that every advantage connected with fermentation and its products, will be secured by that proper application of manures which retains the fibrous matter of recent compost heaps replete with animal urine.

I close this article, as land can be injured, and rendered almost barren by a redundant quantity of humus, by which, being glutted, it is made to approach the character of a peat bog, the only certain remedy which chemistry has instructed us to apply, will be quick-lime, reduced pretty nearly to powder, and thus incorporated in sufficient quantity with the soil. By the peculiar affinity with which it attracts and fixes the deleterious humus acid, it will, as before stated, correct the existing evil, and convert a poisonous agent into a gradually available manure.—*J. Towers in Farmer's Magazine.*

English Farm.—My next visit was to the county of Essex. I first called on a gentleman, to whom I was introduced, about seven miles from St. Paul's who farms 1000 acres, and who pays, of rent and taxes, £4000 yearly. Although a large breadth of wheat is raised on this farm, it is principally devoted to the cultivation of potatoes and vegetables for the London market. The tenant is a gentleman of large capital and of great enterprise, and conducts his establishment with judgment and economy. He keeps 80 horses for the labour of the farm, and for carrying the produce to the city; the tolls for which cost him £150 a-year. He employs an immense number of labourers, who are all, except his h semen, paid by piece or task work; the total amount of wages paid to them annually exceeds £6000. In 1846, he had 500 acres of potatoes under crop, which were taken up early, and sent to the market before any disease got amongst them, and it was said he cleared £15,000 by the transaction. He plants generally 400 acres of the Prince Regent and Early Shaws species, these being the kinds which bring the best price. Vegetables, such as cabbages and broccoli, of which last he has frequently 70 acres, are afterwards planted. He sows 100 acres of onions, a small part of which is sown in September; and should they stand the frost, which is not always the case, they are ripe in June and fetch a high price. The usual time of sowing is in March. The two kinds most approved are the white Spanish and the white or brown Globe; the former meets with the readiest sale, but the latter is the most prolific crop. 8 to 10 lbs. of seed are sown per acre, according to its soundness, which is always previously tested. The yield is from 250 to 320 bushels per acre, of 50 lbs. per bushel, and the selling price is from £3 to £4 per ton. The cost for weeding the onions is £3 per acre. The vegetables, after being reaped, are put in sheds for selection and assortment; and so much