

posed to the weather; his corn is allowed to stand uncut after it is ripe, as he calculates upon having the reapers at a lower rate, by waiting until others are done—in the meantime, either a wind comes and shakes out a great portion of the grain, or the weather sets in wet, and much of it is spoiled, and when at length it is brought into the yard he neglects to secure it, lest he should be at too great an expense; and, lastly, when thrashing his corn, he is astonished at the smallness of its yield, forgetting that the land had not been properly cultivated; thus, at the end of the year the parsimonious Farmer finds himself in no better circumstance than when he commenced, merely getting a living, but nothing to spare, for all his time and labour. In thus briefly touching upon the last division of this paper, I regret to add that I am acquainted with several respectable Farmers who are so thoroughly in love with the old system of management (a system which I am glad to say is daily tottering on its base), that not all the arguments you can bring forward, together with the various improvements and successful results in modern Agriculture, will induce them to alter their habits or adopt methods that would not only promote the true interests of both themselves and landlords, but would teach them the well-known adage, that 'to reap plentifully, they must sow plentifully.' So long, however, as they cleave to their antiquated notions of farming, I give up all hope of seeing them out of the list of parsimonious Farmers, and must look forward to the rising generation to obliterate the name from amongst us.'

Having thus described the three different modes of farming, Mr. S. proceeds to prove the matter more fully by presenting two tables, shewing different results between good and bad farming upon a farm of 300 acres, allowing 60 acres to be old grass land, and 240 acres arable, and upon the fourth and fifth-course system. In this way he shews a profit of £181 7s. annually towards the good Farmer, and a total loss of £47 annually towards the bad one. Thus, in the course of 21 years the good Farmer, allowing him to have his living out of his farm, will be in possession of at least £5,000, including his capital, while the bad Farmer will be reduced to poverty. One great drawback, however, to good farming, is the want of sufficient capital. I would, therefore, advise no man to embark upon a farm larger than his circumstances will warrant. He ought always to remember that a small farm, well managed, will remunerate him better than a large farm, neglected. The manufacturer and tradesman have great advantages over the Agriculturist, have a much quicker and larger return upon their capital; but I see no reason why the Farmer should not be equally recompensed, for he has a more laborious life. When I first commenced my career as a Farmer, 24 years ago, upon a 21 years' lease, I made up my mind to farm well, in every sense of the word, sparing neither expense nor labour. My farms were completely exhausted by the previous tenants taking every advantage, which, however, proved nothing to their interest. It therefore required upwards of 8 years to bring the land into what might be termed a proper state of cultivation to compensate me for the capital expended. I have annually lough 20s. worth of manure for every acre of fallow, independent of what was made upon the farm. This clearly shews the advantage of land being let on lease, for, with few exceptions, no man will be willing to expend his money and labour upon an uncertainty; for when he receives encouragement it stimulates him to improvement. Should, however, farms as I have described be offered to the public, they may probably bring a high rent for a few years; but the landlord, in such cases, ought to be cautious in choosing his tenant, for independent Farmers generally offer the most rent, and such farms falling into the hands of tenants of this description would soon be reduced to their former state, and require the same time and expense to bring them round, besides being let at a considerable lower rate. I am aware that several Farmers are so circumstanced, that they cannot make the improvements they otherwise would, were they differently situated. For instance, their landlords may be unwilling to build them suitable offices, and thus they are prevented from consuming their straw and turnips upon the farm, and obliged to send them a distance

of several miles to market: in this district several respectable Farmers have not sufficient accommodation for half the quantity of cattle they ought to keep. Again, their farms may be composed of soil that, in its present state, will not repay them for expensive cultivation, and as such, if land must necessarily be occupied, it ought to be improved; and if thoroughly drained, and properly cultivated, it might be made to produce nearly a third more corn. This cannot be done alone by the tenant, but he must necessarily be assisted liberally by the landlord. It is my firm opinion that the time is not far distant when land of this description, if still neglected, will not find a tenant; and when the proprietor becomes the occupier, I need not say what will be the amount of his rent-roll.

In thus concluding my imperfect remarks upon this important subject, from observations founded on my own personal experience, and knowing, as I do, that the profession of an Agriculturist is precarious and full of risk, I would simply say to all, both good, bad, and parsimonious Farmers, that my principal object in bringing this subject before the club, is to endeavour to instil a more active and liberal spirit of industry and enterprise amongst us, in order that we may keep pace with the ever onward march of improvement progressing in every branch of the national economy, so that at least Agriculture may maintain the position to which its great importance entitles it.—*Scottish Farmer.*

From the Gardeners' Chronicle

BEES.

The curious habits and economy of the solitary or Mason Wasps are well known, but the apiarian is not aware, I believe, that one of them, named *Odynerus parietinus*, is a very formidable enemy in the hive, and exercises a very baneful effect upon the society of bees where it intrudes itself. This I first learned last September, when a friend in Suffolk, who has had a good stock of bees for some years, informed me that one of his hives was so infested with insects that it was worthless. On examining the inside a large number of cases, composed of earth and grains of sand, were sticking to the bottom; their forms were irregular, and they looked exactly like lumps of earth (fig. 1); but on opening them I found the inside lined with a glutinous substance, of a shining dull white tint, and no doubt impervious to air or water. Within these cells were fleshy larvæ of a yellow colour (2), composed of 13 segments tapering to the head, which was small, horny, and ochreous, the mouth being armed with little jaws; the neck was bent, the body inflated, and the tail conical (3): these lived through the winter, and changing to pupæ they produced 13 wasps of both sexes at the end of May and beginning of June.

The solitary wasps were included by Linnæus and Fabricius in the genus *Vespa*, but Latreille and all recent authors, have named this group *Odynerus*, which is justified by their dissimilar economy as well as by differences in the form of the mouth.* The male (4), is five or six lines long, black, punctured, and downy; the head has two lateral compound eyes, and on the crown are three minute simple ones in a triangle; the nose, upper lip, and outside of the jaws are bright yellow, as well as a dot between the horns, which are slightly clubbed and composed of 13 joints; the basal one is yellow beneath, and the remainder are orange on the under side, the tip forming a claw (5): the body is shining black, ovate-conic and 7-jointed, the basal joint is like a short bell, the edges having a



* Curtis's Brit. Ent., pl. 137 and 760, where both genera are figured with dissections.