

landscape gardener at two dollars per day to give me instructions). I concluded that the object of my first experiment in early rising should be the planting of the hippopotamusses. I accordingly rose next morning at five, and it rained! It rained for two weeks! We had splendid potatoes every day for dinner. "My dear," said I to Mrs. Sparrowgrass, "where did you get these fine potatoes?" "Why," said she, innocently, "out of that basket from Long Island!" The last of the hippopotamusses were before me, peeled and boiled, mashed and baked, with a nice thin brown skin on the top.

I was more successful afterwards. I did get some fine seed potatoes in the ground. But something was the matter: at the end of the season, I did not get as many out as I put in.

Mrs. Sparrowgrass, who is a notable house-wife, said to me one day, "Now, my dear, we shall soon have plenty of eggs, for I have been buying a lot of young chickens." There they were, each one with as many feathers as a grasshopper, and a chirp not louder. Of course we looked forward with pleasant hopes to the period when the first cackle should announce the milk white egg, warmly deposited in the hay which we had provided bountifully. They grew finely, and one day I ventured to remark that our hens had remarkably large combs, to which Mrs. S. replied, "Yes, indeed, she had observed that; but if I wanted to have a real treat, I ought to get up early in the morning and hear them crow." "Crow," said I faintly, "our hens crowing!" Then, by "the cock that crowed in the morn, to wake the priest all shaven and shorn;" we might as well give up all hopes of having any eggs," said I, "for as sure as you live, Mrs. S., our hens are all roosters!" And so they were roosters! that grew up and fought with the neighbours' chickens, until there were not a whole pair of eyes on either side of the fence.

A dog is a good thing to have in the country, I have one which I raised from a pup. He is a good stout fellow, and a hearty barker and feeder. The man of whom I bought him said he was thorough bred, but he begins to have a mongrel look about him. He is a good watch dog, though, for the moment he sees any suspicious looking person about the premises, he comes right into the kitchen and gets behind the stove. First we kept him in the house and he scratched all night to get out. Then we turned him out, and he scratched all night to get in. Then we tied him up at the back of the garden and he howled so that our neighbours shot at him twice before day-break. Finally, we gave him away, and he came back; and now he is just recovering from a fit, in which he has torn up the patch that has been sown for our spring radishes.

A good strong gate is a necessary article for your garden. A good, strong, heavy gate, with a dislocated hinge, so that it will neither open nor shut. Such a one have I. The grounds before my fence are in common, and all the neighbours cows pasture there. I remarked to Mrs. S, as we stood at the window in a June sun-set, how placid and picturesque the cattle looked, as they strolled about, cropping the green herbage. Next morning I found the innocent things in my garden. They had not left a green thing in it. The corn in the milk, the beans on the poles, the young cabbages, the tender lettuce, even the thriving shoots of my young fruit trees had vanished. And there they were looking quietly on the ruin they had made. Our wench-dog, too, was foregathering with them. It was too much, so I got a large stick and drove them all out, except a young heifer, whom I chased all over the flower beds, breaking down my trellises, my wood-bines, and sweet briars,—my roses, and paeonies, until I cornered her in the hot bed. I had to call for assistance to extricate her from the sashes, and her owner has sued me for damages. I believe I shall move in town.

[From the Mark-Lane Express.]

THE RUST-IN-WHEAT COMMISSION.

To His Excellency Lieutenant-Colonel Hanley, Officer Administering the Government of South Australia, &c., &c.

His Excellency Sir Dominick Daly, Knight, late Governor-in-Chief of South Australia, having appointed us whose names are hereto appended a commission to inquire into the diseases affecting the cereal crops of this province, we have the honor to report to your Excellency as follows:

I. PRELIMINARY.—The natural history of the rust-diseases having for years past formed a subject for scientific investigation, your commissioners did not anticipate being able, with the limited means and appliances at their command, to throw new light on the physiology of that malady; but they have directed their best attention to the question whether the disease which has recently destroyed our cereal crops was identical with the "rust" described by scientific men, or whether it was some new and modified disease, generated by peculiar conditions of soil and climate affecting the growth of corn in this colony. They have, however, notwithstanding former researches, inquired anew whether the cause of rust was to be sought for in the seed sown, in the soil itself, or in atmospheric conditions affecting the growth of the plant; and, finally, whether any plan could be devised for mitigating the severity of the disease. On these points much valuable evidence, written and oral, has been collected, and will be found appended to this report. Your commissioners have also directed their attention to the disease popularly designated, "take-all," and have recorded the observations of many experienced and competent witnesses. The method of investigation has been the following: A schedule of

questions (see Appendix) comprehending some twenty separate branches of inquiry was printed, and parcels forwarded to all the corporations and district councils of the province for distribution amongst agriculturists and other suitable persons in their respective neighborhoods. It was considered better that the various district councils should themselves select the farmers whose evidence was required, than that the commissioners should limit their inquiries to individuals of their own choice. As regards the schedule of questions itself, it was framed simply as a guide to those who might wish to avail themselves of it; each person addressed being invited to state his own views and opinions in his own way, altogether regardless of the questions proposed by the commissioners. Many witnesses have, in accordance with this invitation, given the result of their experience on various points of importance, supplementary to their replies to the schedules. The communications received in answer to the series propounded by the commission have been carefully considered and collated, the most important portions of the information elicited being herewith appended. This has unavoidably occasioned some delay, but the value of the evidence thus secured will more than compensate for the loss of time. In addition to the useful and varied information gathered through the post from about 700 practical agriculturists, various witnesses have personally attended before the commission, and given *vice versa* evidence. The witnesses include some of the most experienced and observant wheat-growers in the province, as also our ablest agricultural chemists and microscopists. Your commissioners have also had the benefit of a thoughtful and elaborate paper, prepared by Mr. Chas. Todd, on the rain-fall of last season, compared with that of seasons preceding—a paper to which they point with more than ordinary satisfaction, as replete with information valuable to the scientific farmer and the naturalist. Reference should also be made to a report kindly and readily furnished by Dr. Mueller, of the Melbourne Botanic Gardens, on the subject of the rust in wheat, summarizing the latest researches and discoveries with regard to that fearful malady, and effectually setting at rest some plausible but unsupported theories on the subject. The scientific aspects of the question have also been professionally elucidated by Drs. Muecke and Schomburgk, and Messrs. Francis Cossins and Ey, of this colony, whose conclusions are also appended. With these preliminary remarks, your commissioners proceed to submit the result of their investigations.

II. RED RUST.—As regards the physiological character of red rust, there can be no doubt whatever that it is essentially a vegetable parasite or fungus, attacking the plant externally, and brought into active operation by certain atmospheric or climatic conditions, the most effective of which last year were heat and humidity. In September and October there was a most unusual amount of moisture combined with sultry heat, and frequent heavy dews at night—the blades of cereal plants being kept in a continual state of dampness, with occasional rapid evaporation, causing the pores of the leaf to be more than ordinarily open, and thus facilitating the entrance of the infinitely minute spores, or seeds of the rust fungus, which are more or less always floating in the atmosphere, or deposited on the soil or surrounding objects, ready for dissemination by every wind that