

manure are not like those on other coasts, annually washed away.—*Proceedings of Boston Society.*

Sheridan once wrote:—‘ Women govern us, let us try to render them perfect; the more they are enlightened, so much the more shall we be. On the cultivation of the minds of women depends the wisdom of men. It is by women that nature writes on the hearts of men.’ Napoleon said:—‘ The future destiny of the child is always the work of the mother.’

GUANO.—As guano appears to be constantly exhaling ammonia on exposure to the atmosphere, to prevent loss and deterioration, it cannot be, before use, too carefully excluded from the air; and on the same account, it ought not to be applied as manure whilst vegetation is inactive, but rather at the moment of its coming into activity, and when in progress, according to the Peruvian manner of bestowing it on the plant rather than on the soil.—*Edinburgh New Philosophical Journal.*

THE GUANO TRADE.—A sailor coming from Liverpool to Preston, who had been with a vessel for guano, states it to be a most lucrative speculation. He said that the vessel was ten weeks on its passage to Africa, nine weeks returning, and seven landing—altogether a few weeks over half a year. The article itself, he states, cost not a farthing, the vessel carried 500 tons, which, at 8l. per ton, would make 4,000l. The expenses, he thought, would not exceed 500l.; but if we call them 1,000l., the importation of guano is not a bad speculation.—*Lancaster Guardian.*

ON WEEDING.—The most proper time for weeding is before the corn takes what is termed “the second growth”—the weeds are then sufficiently strong to be easily got hold of, while their roots are not too firmly fixed in the earth to cause injury to the corn by their being pulled out, nor is the corn plant at that age hurt by being trod upon. When the weeds are removed at that juncture, the grain crops get such a start of any under growth that may have been left in the ground that it soon overtops all kinds of weeds for the rest of the season, and what is of much importance, prevents them coming to seed.

MODEL EXPERIMENT.—Mr. Barclay, M.P., reported to the common Council the progress made at the last meeting in arranging the plan of the Model Experiment proposed by Mr. Miles, for trial by such Members of the Society as could conveniently join in it. An interesting discussion then ensued in reference to results obtained in the use of Guano and farm-yard Manure. The Rev. Thomas Cator, of Skelbrooke Park, near Doncaster, had found an application of 300lbs. of guano per acre to a potato crop; strewn upon the ground when they were ready for earthing, equivalent to 18 loads of fold manure applied in the usual way; and having last year manured a bean crop with guano, pigeon-dung, rape dust, and fold-manure, he found, now the wheat had come up this Spring, a decided evidence of the superiority of guano on the 5 lands of the bean-field to which that manure had been applied; he considered it as one of the cheapest hand-tillages, while the fold manure was most advantageously reserved for the grass and clover crops.—Mr. Davenport of Capesmore, Cheshire, regarded guano at one of the most valuable manures; having now had three or four years experience of its use; and he considered in general that 3 cwt. of guano was equal to 20 tons of farm-yard manure. He spoke of the guano in its unadulterated state as imported. His own supply had been of the Peruvian guano, furnished to him by Mr. Meyers, of Liverpool, at 10l. per ton. He believed that the African guano was substantially the same in its general character, but that it contained 25 per cent. of water, while the Peruvian contained only 10 per cent.; and assuming the Peruvian variety as 10l. per ton, Mr. Bernays had stated the relative value of the African guano to be as 7l. per ton. Notwithstanding the immense quantities already sold in this country, Mr. Meyers had informed him that he had at present orders for 3,000 tons which he was unable to supply. The hardest samples were the best, and as it was known to be

frequently adulterated with one third of an inferior quality, it was most advisable to purchase it from a direct importer of the article, and in the original packages. His practice was to apply a mixture of half a ton of finely-worked bones and two cwt. of guano, per acre, to a crop of potatoes or turnips. He recommended powdered gypsum to be scattered by handfuls in the farm and stable yards, and mixed with the straw and liquid manure; or should not be done then to put layers of it in the manure-heap every three or four feet; by means of this proceeding, the ammonia instead of escaping into the air in the state of gas, was retained by the gypsum. By these new systems of manuring he was quite sure the same results could be obtained at one-quarter the former expense. Mr. Hillyard, of Thorpe, near Northampton, would engage in no trial of new manures unless they were susceptible of being brought into general farming use, and the experiments made after a white straw corn crop. Mr. Gibbs thought that it was desirable to make the trial after a white grain crop whenever the given weight of the turnips was the point to be ascertained. Mr. Barclay, Mr. Hillyard, and the Rev. Thomas Cator, then agreed to undertake the trial of the Model Experiment proposed, and under such conditions as might hereafter be finally arranged.

HOW TO JUDGE MALT.—In buying malt, a good judge on taking up a handful, examines narrowly the different pickles, to ascertain if the spire be well grown, that is, at least two thirds up the back of the pickle; he also looks for sleepers, or dead corns, which have not sprung at all. Should there be many of these, he will probably reject the malt. But a mode of judging of malt, which is very good is one that is old and simple. Count out indiscriminately from the bulk about 200 pickles, throw them into a tumbler of cold water and stir them; the pickles thoroughly malted will float horizontally on the surface, those half malted will float vertically one end hanging down, and the unmalted will sink to the bottom. We can thus, at once, form an accurate estimation of the quality of any malt.—*Black's Treatise on Brewing.*

THE PROCESS OF AGRICULTURE.—The reign of George the Third was distinguished in the History of Useful Arts, for the rapid growth of the cotton manufacture; that of William the Fourth for the perfection which railway locomotives attained. The reign of Victoria promises to be not less remarkable for the progress of agriculture, as displayed in the advances towards reducing it to an exact science. The worthy successors of the Bedfords, Cokes, and Collings, have called to their aid the chemist. The merchant, stimulated by such enlightened patronage, has ransacked Africa and America for new fertilizers. The mechanician from day to day announces some improved means of obtaining increased power and exactness in the operations of the farm. The principle of association is applied to facilitate draining, that of insurance to protection against storms and murrain. A Royal Society itinerates from town to town, instructing and rewarding the experimental cultivator and breeder; and the wide-spread interest felt in these important pursuits is attested by the number of periodicals devoted to its elucidation, which have within a very short time sprung into life. It would savour too much of the spirit or puffery, if we were to designate any by name—but we will venture to assert that there are some conducted with a union of practical skill and scientific knowledge, which would, on the Continent, entitle the editors to well-paid professorships, titles, and ribands of all the colors of the rainbow.—*Western Advertiser.*

THICKNESS OF THE CRUST OF THE EARTH.—The first investigation of importance that presents itself is the thickness of the crust on which we dwell. We have seen by the theory that this ought to be continually increasing, though with increasing slowness, and that there was a time when it was so thin as to be almost in a state of confusion. We have stated that the increase of temperature observed is about one degree Fahr. for every fifteen yards of descent. In all probability, however, the increase will yet be found to be in geometrical progression, as investigation is extended.