

Every farmer knew that the clay placed below a manure-heap increased its value and quantity. There was no description of land that was not benefited by green crops. He had some land so foul, that he had ploughed down the mangold on it, and found the wide spaces yield from 9 to 15 tons per acre. He had more wheat on strong land than on simple fallows.—Mr. Rowlandson had never greater pleasure in his life than in seconding the vote of thanks for the lecture they had just heard, and which he considered did great credit to Prof. Way, and proved the practical uses of funds appropriated by the Society to scientific purposes. He had himself been engaged in chemical operations on a large scale, and he could particularly estimate the value of one of the facts adduced, which would revolutionize the plan of processes connected with it, namely, the constitution of the double silicates, and the superiority of lime as an active convertible agent. It would have been thought, under the old system, that the soda-compound was superior. He conceived that the theory of Prof. Way would open views of unexampled importance in reference to the promotion of fertility in soils. It was probable that, if the double silicates could be obtained economically, direct manuring with the double silicate of lime might eventually be adopted as preferable to marling and liming. He remarked that the double silicates of alumina and lime formed a considerable portion of hydraulic cement, and might probably be manufactured on a large scale.—Colonel Challoner thought that these lectures, as delivered by Prof. Way, did a great deal to establish that intelligent principle of farming which led at every step to the inquiry "why" such and such things should be done by him. He considered that the Council had acted very wisely in their arrangements for the lectures to be delivered from time to time before the Members of the Society.—Mr. Evelyn Denison, M. P., inquired the condition of pulverized and burnt soils, and the power of the latter to absorb ammonia.—Prof. Way remarked that although by burning soils their staple was destroyed, such soils were improved by the resulting pulverization. Clay was mechanically improved by being burnt, but it could then only absorb ammonia mechanically as a porous substance, the hydrated double silicates having lost by heat their properties of absorbing that alkali, and clay, when burnt, was accordingly deprived of the power of chemical absorption dependent simply on the action of these silicates.—Mr. Chandos Wien Hoskyns then gave an interesting account of his personal visit to the crops of the Rev. S. Smith, of Lois-Weedon Vicarage, in Northampton, the best exponent as Prof. Way had just then described him, of the Tullian system of cultivation, and the author of a paper "on the experiment and experience of the growth of wheat year after year on the same acre of land," in the last volume of the Society's Journal, page 133. His results, as Mr. Hoskyns

remarked, were only so wonderful, that they did not receive the credit they deserved: although, when personally inspected, they carried at once a conviction of their perfect feasibility, notwithstanding the marvellous absence of all manure, as technically so understood by such term in the carrying out of his simple, but effective processes.—Mr. Gadesden could fully confirm Mr. Hoskyns's statement, as he had also paid a personal visit to Mr. Smith's farm and inspected his crops. The soil was a stiff one and so stiff, that Mr. Smith's own tenant farmer, expostulated with him in reference to the circumstance: but although no manure had been used, it became so fertile, that it would be necessary to cast off the top staple and bring up the clay. Mr. Smith had 6 acres of wheat, and intended to extend the cultivation to 20. He understood, too, that the Earl of Essex had 50 acres on the same system.—Mr. John Mainwaring Paine, of Farnham, could simply but entirely confirm all that Mr. Hoskyns had stated with regard to Mr. Smith's experimental wheat-fields, under the Tullian mode of culture as practised by him. He would, however, very briefly state what he saw, and the impression which Mr. Smith's crops left on his own mind. The first time that he saw them was immediately after inspecting Mr. Lawes experimental wheat at Rothamstead, about the last day in June. He had thus a good opportunity of forming a comparison of the appearance of the respective crops at that time. Mr. Lawes's highly manured nitrogenous plots were then looking splendidly well: Mr. Paine had also some of his own similarly manured, which was likewise very promising, and which did realize from 7 to 7½ quarters per acre. He had thus in his mind's eye some very good standards of comparison, and he was bound to state that Mr. Smith's far exceeded either of them in luxuriant appearance and promise of crop. When he first beheld them, he could not help exclaiming "This land has been lavishly dressed with ammoniacal manure." And, so indeed, it really had been, from atmospheric sources; for this we knew, and could appreciate, after Mr. Way's most valuable discovery of the absorption and retentive powers of clay soils. Mr. Paine felt assured that there could be no mistake about this matter. The nitrogenous aspect of the whole crop, in his opinion, stood out in too bold relief to be overlooked for a moment. He was particularly struck with the largeness and regularity in size of the ears of the corn, and with the uniform height of the straw. This he did not expect to find; yet such, he remarked, was the fact. On asking Mr. Smith to explain the cause of this remarkable feature in thin-sown wheat, he replied that he believed it simply to arise from the circumstances of early sowing, by which means the plants were enabled to tiller out before the spring. These appearances, and the subsequent large crop obtained by Mr. Smith. Mr. Paine, need scarcely state