

that the mineral matter with which the seed is enveloped, on being dissolved in the soil, will settle immediately around the neck of the roots, which will naturally dive away from it, and it will then become useless to the progress of the plant after it has attained a certain development. I believe that this objection is more specious than real; for every one must have observed that when a seed has fallen upon a manure heap, and there germinated to a plant, if that plant be pulled up, it is found that the roots are very short and shaggy, and do not seem to have penetrated beyond a very limited area, the number of rootlets making up for the deficiency of their length. This seems to me easily accounted for; because the roots, finding in their immediate vicinity a sufficient supply of nutritive elements, have no inducement to dive at any great length in search of them."

"However plausible this and other objections may be, the best test, after all, is the test of experience; and that system, which I have called, for want of a better word, the incrustation of seeds, must live or die by that great test. A French gentleman has recently come to this country, to submit his invention of a machine for preparing the seed, and the formulas regulating the nature, proportions, and quantities of the mineral substances to be used, to the verdict of English practical farmers; and I am in a position to state that his appeal has been favourably received, and experiments are being made in various parts of England with the view of testing the value of that gentleman's discoveries. Messrs. Burgess and Key have been entrusted with the construction of the simple machine for the encrustation of the seed. This machine consists in a hollow cylinder, suspended by two leather straps from a pulley, to which a rotary motion of about forty revolutions in a minute is imparted, either from a steam-engine or any other motive power. In the cylinder the seed is introduced mixed with an agglutinous mixture, itself rich in nitrogen; and then the mineral substances, reduced to a fine powder are added, and from the rotary motion of the cylinder adhere to the seed in a regular coating; this is repeated until the entire quantity has been fixed. In order to prevent the humidity of the agglutinous mixture from acting upon the seed, and causing it to germinate before it is put into the soil, an hygrometric substance is mixed with the mineral powders, which abstracts all the excess of humidity from the glue, and besides dries up the crusted seeds almost immediately.

"Previous to his coming to this country, Mons. D'Illiers has satisfied himself by numerous experiments of the value of his discovery; and at the late sowing season, a large area has been sown with his prepared seed in various parts of France, so that at the time of next harvest I shall be enabled to give an authentic account of experiments tried both in France and in England, under every variety of local circumstances of soil, climate, and modes of husbandry."

Why should not experiments on subjects of this kind be undertaken in this country also? Could not the Board of Agriculture devote a portion of their time and funds, with great advantage to the farmers of Canada, to the testing of manures, and the best modes of applying them? The subject is one of immense importance, and *must* soon engage the attention of every man interested in maintaining the fertility of the soil.

### EVILS OF OVER-FATTENING STOCK.

For many years grave objections have been repeatedly urged against the practice of the excessively artificial system of feeding cattle, sheep, and pigs, for the exhibition of fat stock, especially the Smithfield Christmas Show in London. An elaborate and scientific report on rigid examinations of certain animals which took premiums at the last Smithfield Exhibition, has just been published, and which cannot fail to awaken general attention to this subject. The report is the production of Mr Gant, assistant-surgeon to the Royal Free Hospital, whose knowledge of general and comparative anatomy, and well-known familiarity with the use of the microscope, entitle his state-