ARTIFICIAL INCUBATION.—Mr. Cantello, of the Chiswick Poultry Farm, writes thus to the Morning Post, on the subject of artificial incubation: —I beg to apprize you that I have brought to complete practical purpose my system of rearing poultry by means of warm water at 106 degrees Fahrenheit. That that is the blood heat of the feathered tribe I was the first to discover; and, by adopting it as the basis of my system, instead of taking 98 degrees, as was formerly supposed to be the blood heat of fowls, and by applying "top contact heat," two temperatures instead of one, and abandoning the principle of an oven heat, which former experimentalists had tried without any real practical success, I have been enabled by my apparatus to hatch and rear, on an average, 75 chickens from every hundred eggs, thousands at a hatch; and I can produce 18 broods a year, instead of the two of 15 or 16 chickens, which is all the domestic hen does. My system is now in complete operation, and I am daily hatching poultry from the eggs of pullets now laying, which were only hatched themselves last September and October, and which any one may see by visiting the temporary model-farm here. I rear and fatten my poultry for market in thirteen or fourteen weeks, and I have done so ever since I commenced. I am now selling as many as I can produce, and could sell thousands more if I had them. Many have looked upon my invention merely as a sight to be gazed at, and as a wonder of no use. It is not so. It is of extensive practical value, and I shall go on, until I can produce poultry for the million. I have stated that large profits are to be gained by the business, and have been asked if that be the case, what do I want the matter to be made public for? In reply I will ask, did the inventors of gaslight, or the steam-engine, introduce all the light or power themselves throughout the country? Neither can I raise all the poultry. Notwithstanding all that farmers may say, I can affirm to the world that poultry can be fed to the same weight, in a tenth of the time, and at less than half the cost, of mutton, beef, or pork. It may, ere long, be no great wonder to see the business of producing poultry taken up by manufacturers in the same way that the distaff was superseded by the spinning jenny. Not very long since all the yarn used to be spun by farmers' wives and daughters; at present they produce all the poultry. The time of home-spun yarn is gone; and soon I doubt not the day will arrive when a poultry farm will be seen on a piece of waste land, not far from a cotton factory, a colliery, or near a forge. A company, it is said, is in formation to carry out my plan extensively: I shall be glad to see it start, and I will render it every assistance in my power, and there is scope for hundreds of companies. At present, the supply is not half a fowl a year to every member of the community, and it would take from twenty-five to thirty millions of money embarked in the business, to give every one a chicken once a month. I shall, however, continue in the even tenor of my way, and bide my time to see the invention which I have matured, extensively practised for the welfare of the community."

The operations of agriculture having, for their object, the production of plants, which are either essential as food, or useful in the arts or industrial processes of man, it is well to begin with a summary view of the principal organs of which vegetables are composed; and by the instrumentality of which, under certain influences, which we shall seek to appreciate, all the phenomena of their existence are manifested. Plants, fixed in the soil by their roots, live in the atmosphere by the concurrence of their green parts, under the combined actions of light, heat, and moisture.

The seed, which is the final result of vegetable life, and of which the aim in the reproduction and multiplication of the species, should first receive our attention. The seed is, if we may so speak, the starting point of all husbandry; it is, with very few exceptions, the first point on which the industry of the farmer exerts itself.

Nature, to ensure the preservation of seeds, has had recourse to infinite care and foresight, which are, in some measure, an assurance of their importance. The seed is often placed in the middle of an abundant fleshy pulp, which serves to afford it nourishment or manure, at the time of its future development. Sometimes, as to leguminous plants, it is lodged between thick and tough membranes, or is covered with hard but flexible scales, as in the graminous plants; or, again, it is enveloped in a woody substance of extreme hardness, as in stone fruits.

Nature does not show herself less provident in furnishing means for scattering seeds, and propagating vegetable species at great distances. There are, indeed, seeds which, furnished with light silky plumes or wings, flutter in the air, and are transported afar by the winds. Others, by means of a viscous, hard, impermeable envelope, float on rivers, and descend their courses, without suffering the slightest change, or losing their germinating power. There are seeds again of a sufficiently coherent texture to resist the digestive action of the stomachs of animals that feed on the fruits which contains them and which are, consequently, often found deposited, at great distances, from the plant which produced them; they are thus frequently dropped to germinate and flourish at the top of the steepest mountains. By these admirable provisions, then, the air, the water, and even animals themselves, become the vehicles by which the migration of various vegetable species over the surface of the globe is effected.

When the seed is gathered in its state of perfect maturity, it is completely inert, its vital functions are wholly suspended, and it may be kept often for a very long time without being made to grow. The length of time during which