

as possible the natural action of electricity in the air. The plants experimented on are surrounded with barbed wire having points from which the current will run off into the air and find its way to the nearest attractive conductor. The results of this are said to be extremely favorable, but perhaps not compensatory, when the cost of the current, passed through Tesla transformers, is considered. The third experimental method, which is the one adopted by the Paterson market gardener, consists in causing a feeble current to permeate the soil in which the plant is growing, and with this the results were sufficiently remarkable to challenge attention. Tests were made on wheat, oats, barley, carrots, beets, and other common food vegetables grown in beds in which all the conditions were as nearly as possible identical except that half the beds were subjected to electro-chemical action and the other half were not. Photographs of electrified and non-electrified plants of equal age show that the former are, generally speaking, at least twice as luxuriant as the latter, and that maturity is attained in about half the time. There is a field here for experimentation of vast benefit to the human race, which promises results as important as those growing out of the work of LIEBIG in the fertilization of fields by the addition of soluble mineral salts. It also opens a vista of pleasure for dwellers in cities, from the owners of conservatories to the less fortunate occupants of "apartments," who are united by a common desire to grow something. A battery current sufficient to actuate a system of electric bells will answer the purpose and give results which will be both entertaining and instructive. Simple electrodes, preferably of carbon and zinc, pressed into wet ground on opposite sides of a flowerpot, will do the business as well as a more elaborate apparatus, and two or three cells of Laclanche or other weak battery would, by the proper connections, make a small conservatory unusually interesting.

As to the larger applications of the principle of electrical stimulation in market gardening and farming, we leave that subject to the specialists in such matters. Since the days of the lamented HORACE GREELEY the interest of the metropolitan journalist in agriculture has been purely academic and statistical.

THE ELECTRIC STIMULATION OF PLANT LIFE.

The market gardener near Paterson, N. J., who tapped the power cable of the trolley line and conveyed the current to his vegetable patches no doubt committed a technical offense against the property right of the railway company, but it begins to look as if he had made a discovery of such value that the company could well afford to condone the appropriation of its current and pay something for the knowledge it has gained. It will be remembered that the gardener claimed that with electrical stimulation he practically trebled the productiveness of his ground. Subsequent investigations conducted by VON GEORG HEBER, and reported in the Elektrotechnischer Anzeiger, tend to show that the influence of an electrical current upon plant life is in a high degree conducive to luxuriant growth. The German experiments deal with three phases of electrical stimulation. By one method the seeds are submitted for some time to the action of the electric current before sowing. They are mixed with damp soil, placed between two electrodes, and subjected to the influence of either a continuous or alternating current, as may be most convenient. Some seeds are caused to sprout more quickly by this treatment, but so far as the records show, the results are not important. The second method is to simulate as nearly