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### Land Plaster or Gypsum as a Fertilizer.

The manurial value of land plaster—sulphate of lime—has long been known and acknowledged. As long ago as when Benjamin Franklin lived and employed his peculiar but most effective modes of presenting great and important truths to his countrymen, land plaster was employed as a dressing upon the land of our most advanced and intelligent farmers. That great philosopher once adopted the following characteristic method of teaching the value of this important mineral as an aid to growing crops: He selected a large grass field by the side of a public highway near Philadelphia, which rose gradually from the road to the rear of the field, and staked out upon its surface the forms of certain letters; within these forms he sowed freely his favorite fertilizer. As the season wore away the grass thus prepared soon shot up far ahead of the surrounding herbage which was not so treated, until it finally stood out in such bold relief of luxuriant green that no passer-by could fail to observe the phenomena, which explained itself in the magic words—LAND PLASTER. This was a practical test of the value of the fertilizer, which fairly spoke for itself in words which could be neither ignored nor disputed.

The philosophy of this fertilizer—exactly how it acts upon vegetation—is not fully understood or agreed upon by agricultural writers. It is well known, however, that it has a great affinity for ammonia, one of the most fertilizing agents known. It is this quality which gives its great value as a disinfectant about stables, where ammoniacal gas is so abundant. A slight sprinkling of gypsum on a compost heap arrests the escaping gases at once, and the unpleasant volatile ammonia is lost to the sense of smell. As fast as the ammonia passes from the mass it is taken up by the sulphuric acid contained in the gypsum and in combination therewith forms a sulphate of ammonia which, when placed in contact with the roots of vegetation, in a not over moist soil, readily gives up its ammonia as food for the plant.

Hence it is reasonably supposed that when spread upon land, without a prior contact with the compost heap, it collects ammonia from the atmosphere and conveys it to the plant in the same manner as already described. Others suppose that when applied directly to the land it possesses the power of condensing moisture during the cool hours of the night, and imparting its nightly accumulations to the soil or plant roots during the day. Whether one or both, or neither of these propositions are true, there can be no mistake about its great value as a fertilizer to every species of vegetation—whether grass, grain, vines or trees. The experiment of Franklin has been tried time and again in nearly all parts of the country, and almost always with the most gratifying success.

The conditions of its use are simply a not over moist soil. In corn or roots it may be dropped in the hill; but the usual way of applying it is to sow it broadcast upon the surface—for wheat, as soon after it is up as it begins to show the need of moisture; the same with grass. For trees and vines it should be spread freely upon the ground. It need not be harrowed in when so spread under any circumstances. We have little doubt that this fertilizer would prove of great benefit to the dry, arid soils of California. We understand that some of our farmers are already experimenting with it, and we trust some of them will send us the results of their experiments as soon as results are reached.—*Rural Press.*

A PRETTY SCIENTIFIC TRICK.—The following is endorsed by Professor Young, of Dartmouth College; it will afford, perhaps, an occasional hour amusement "round the evening lamp," and stimulate scientific research for the young siks: Wet a thick piece of wrapping paper or a half a sheet of heavy foolscap paper; dry it thoroughly over the register or on top of the stove; while warm lay it down upon a varnished table, or a dry woolen cloth, and rub it briskly with a piece of India rubber. It will become strongly electrified, and if tossed against the wall of the room or the looking-glass, will adhere for a long time. Tear some tissue paper in bits one-eighth of an inch square, and a piece of paper electrified in the way described will attract them in a very amusing manner. Set a japanned tea tray (the varnish must be in good order, not worn off much or cracked), upon three dry objects; lay into the tray electrified paper, and on touching the tray again you will get another spark, but of the opposite kind of electric; replace the paper and you get another, and so on indefinitely. The tray and paper form, in fact, a very neat and effective electrophorus with which can be performed many of the experiments described in the text books.

Doctors.—There is no danger that the physician will ever become a useless member of society, for the simple reason that instead of decreasing the share of his duties, the culture of preventive medicine—of the knowledge of how to prevent diseases as well as to cure them after they are engendered—must tend to amplify and enlarge the same. His will be the task, not merely to recognize the forms of ailments and endeavor to combat their effects, but to look into the future and, through the aid of all circumstances of the present, predict possible evils and point out means of defense. Add to this the constantly increasing knowledge of drugs and their properties, of the wonderful relations of mind and body, of the nature and habits of disease, which science is rapidly developing, and the physician of the future has before him not a narrower but a far wider field for the exercise of his skill.

TO CRYSTALLIZE FLOWERS.—Construct some baskets of fancy form with pliable copper wire, and wrap them with gauze. Into these tie to the bottom violet, ferns, geranium leaves—in fact, any flowers except full-blown roses—and sink them in a solution of alum of one pound to a gallon of water, after the solution has cooled. The colors will then be preserved in their original beauty, and the crystallized alum will hold faster than when from a hot solution. When you have a light covering of crystals that covers completely the article, remove the basket carefully, and allow it to drip for twelve hours. The basket makes a beautiful parlor ornament, and for a long time preserve the freshness of flowers.

TO SHOW THE PATH OF AN ELECTRIC DISCHARGE.—A correspondent of the *English Mechanic* says: "Take a sheet of glass, wash it well with soda and water, dry well with an unsouped towel, polish well with a clean wash-leather. Having found the 'striking distance' of your Leyden jar, battery, or electric machine, place the sheet of glass just below the points of discharge, so that they may rest upon it. The shock may now be passed over the sheet, when on removing the glass, and breathing on it, a picture of the track of the electric fluid will be distinctly visible, as clear glass on a dull ground."

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