

Correspondence.

Horticulture at the Centennial Exhibition, by a Gardener.

SIR,—At this inclement season of the year when the large majority of your readers must be content with reading descriptions of places where flowers and plants are artificially produced, rarely, if at all, through the long winter months getting an opportunity of a peep into a greenhouse or conservatory, I have imagined that a few notes by a "Gardener" about what he saw on a trip to the Centennial Exhibition during last September, might not be uninteresting to some of them.

If I prove too verbose for your space or wander off into subjects that you may have occasion to consider not pertinent to the article, erase or expunge such matter, or, in other words, prime the ideas to suit. My object is to give a few short notes of what I saw that interested me most, professionally, so I shall say nothing of the journey to Philadelphia—the scenery on the route has been described so often and well that even parties who did not travel it must be familiar to a great extent with its leading features.

Stepping out into the streets early the morning after my arrival, I was struck with the difference in the appearance of the trees and plants, flourishing luxuriously everywhere, not an area, ally, or square yard of ground in front of a dwelling house but what was filled with natural productions, so very dissimilar to what we see in this our city of London, or, in fact, in any of our Canadian cities, that I was impressed at once with the knowledge that I was among a different people, and in a different climate. Foremost among the trees, as strikingly differing from our own, was the *Catalpa Cordifolia*, with its long pendant seed pods, and large shining heart-shaped leaves, wearing quite a tropical appearance, and measuring from a foot to 18 inches in circumference around the trunk. With us it freezes and dies to the ground every winter. *Magnolia acuminata* came next, evidently at home, and giving to the grounds in which it stood an entirely foreign look.

Castanea Americana (sweet chestnut), with its beautiful serrated leaves, making a fine contrast to the other two large leaved trees, mentioned previously—*Tagus*, *Sylvatica*, *purpurea*, (purple or blood leaved beech), was also a striking object arriving at the dimensions of a tree. The Fern-leaved variety, though more rare than the blood leaved was also represented. Among evergreens, I was struck with the conspicuous place given to our hemlock and white cedar; the latter assuming a pyramidal shape, and compactness of growth entirely at variance with its habit here.

Tree Box was well represented, standing from two to three and four feet in height. *Kalmias*, *Junipers* of all sorts, and a great many of the finer varieties of *Thuja* or *Arbor Vitæ*, *Mahonia aquifolia*, and lots of other things of like nature, were plentiful, on every hand, then such specimens of *Norway Spruce*, *Scotch* and *Austrian pine*, they were worth the journey over to see them alone.

Creeping over every available spot were *Westaria Sinensis*, *Chinese* and *Japan Honeysuckle*, *Bignonia Grandiflora* or *Trumpet flower*, *Ampelopsis*, both *Virginica*, and the rarer variety *Veitchii*; but to crown the whole, was the well remembered old ivyed churches and other buildings covered with it. The old church, which I afterwards learnt was the oldest one in Philadelphia, was a picture to look at, one mass of green ivy from ground to ridge of roof, climbing away up over the steeple, and hanging down again in festoons or ropes 20 and 30 feet long, and this literally alive with sparrows, making the

whole building vocal with their lively cherrup, and alive with a constant stream of saucy fellows as they flew to the street and back. Can anyone imagine anything more likely to remind them of some spot in the far away old sod, which many of us must have in our mind's eye.

Yuccas, or Adam's needle, *Pampas grass* with its pure white tufts of flower towering up in the middle of a bed of *Caladiums* and *Cannas*, massed on the outside with splendid kinds of *Coleus*, embracing every shade of color almost in their striking foliage, and they, in turn, again fringed with the brilliant *Alternantheras*, gave to the gardens a most luxurious and tropical aspect. A very conspicuous plant in every garden, and by the basketful all over the streets; everywhere, in short, was the fragrant tuberose. Everybody seemed as though they must have a spray of this delicious flower in their buttonhole.

I intended, Mr. Editor, to have got into the Horticultural Department of the Exhibition Grounds, and also to have mentioned one or two places which I visited in the neighborhood of Philadelphia, but I have trespassed quite sufficient on your space already I am afraid. Perhaps at some other time if you think well of it I might embody what I saw and what ideas I picked up in them in another letter.

S. J. P. N.

Commercial Fertilizers.

SIR,—I see by your late numbers that you have given and still intend to give a prize for an article on commercial manures, which I take to be any manures except barn-yard. Such being the case, I take the opportunity of stating the results of my experience with gypsum.

Coming from the fertile and highly cultivated Lothians in Scotland, which are bounded on one side by the salt waters of the Forth and the German Ocean, I had always heard gypsum spoken of with disfavor, and that it produced no good effects in the crops in the vicinity of the salt water. After farming here for a few years, and seeing it mentioned as a good fertilizer, I purchased a bushel and applied it to an acre of corn, being careful to drop it on the leaf; the dew being on, it adhered for some time. The effect was magical and beyond belief. It was in 1858, I think, a remarkably dry year. The corn was about six inches high when I applied it—miserable, dried up, yellow stuff; in ten days you would not have believed it to be the same piece at all. A neighboring farmer, who generally assisted me in haying, and who always raised a pet acre of corn with which he was very successful at the shows, often taking the first premium and often reporting sixty bushels of shelled corn, noticed it soon after it began to change to the dark, rich green which it soon became, and said it had gained and was getting up with his, which he could not account for. In a few days he admitted it had outstripped his, and shortly after inquired if mine did not wilt with the drought and heat, acknowledging that his had for some time. The crop was a good one for any year, though not up to sixty bushels. I never got as large crops of corn as some people tell of. It was at least ten days earlier than it would have been without the plaster, and there was little or no pig corn.

Next year I applied it with equal success to the corn, and tried a little on some wheat. Having let out my farm two years previously, I was obliged from the way it was left to sow spring wheat on oat stubble. I sowed a small piece with gypsum at the rate of one bushel to the acre; the result was eighty-four bundles, single band, from which two men in less than two hours threshed and cleaned up six bushels and a half of No. 1 wheat,

weighing sixty-two and a half pounds per bushel—variety, bald Scotch Fife, the second year of its introduction here. The yield was at the rate of over forty bushels per acre. I also applied fifty pounds of guano, two bushels of hard-wood ashes and twenty-five pounds of gypsum to a quarter of an acre of the same field of wheat. The growth was tremendous, but it lodged and only produced at the rate of about twenty-two bushels to the acre, of a poor sample; but the effects were observable for years after on the piece where the dressing was applied.

Next year I sowed an acre of peas on a piece which had a bushel per acre of gypsum; the result was the greatest growth of vines—I forget how many loads—and not a single pea worthy of the name. I did not thresh it, as there was literally nothing to thresh. I have tried it on peas since, and found that the slightest sprinkling cause them to run entirely to straw.

I then let my farm for a number of years, when I went on again some fifteen years ago. I obtained from the shipper a new variety of wheat called bearded Fife, so-called by the importer, and which I got from the bin where it had been stored since it came from the ship. It is, from the description, much like what I have heard of the *Rio Grande*, being strong bearded, long and open heads, reddish chaff, light wry straw and a good yielder.

Having been long in the bin, besides being the very bottom of the bin, it had got musty, which showed itself plainly after it had got up by its thinness, as in passing through it once I noticed that on my return I had not stepped on a single plant, it was so very thin, besides spindling and unhealthy, and put it down as a complete failure; however, being anxious to get something out of it, after the pains taken to obtain the seed, a bushel per acre of gypsum was applied, the plants being about a foot high at the time, and on visiting it in about three weeks after the difference was truly astonishing; it looked much more like a crop of very dark, green bulrushes than wheat, covering the ground entirely. At harvest the stubble was very thick, each plant having tillered to an extent the like of which I never saw equalled; the straw stood four feet, and ears seven inches long were quite plenty; the yield was ninety-three bushels from barely three acres. I have omitted mentioning in the proper place, viz., where the account of the eighty-four bundles, &c., was given, that the whole field of four acres quite surprised me, as I got a little over a hundred bushels from the whole, it was as pretty a crop as one could wish to see; rather light in the straw where it was not dressed with anything, but beautifully filled with plump, bright grain. Shortly after that I purchased the farm adjoining, a great part of which had been pastured for six or seven years, but had been run very low by continued cropping, with little or no manure, so much so that a neighbor asked me when plowing it what I intended sowing, when I said wheat; yes, he replied, buckwheat, and you cannot get much of a crop of that; I laughingly told him I would have the largest and best crop of wheat ever raised in the township, and so it turned out. From twenty acres I had about four hundred bushels of wheat and seventy of oats, the oats weighed forty-five to the bushel, the quantity sown, two bushels on a little more than an acre; they were a variety which I obtained, and took the second prize at the Provincial Show at Toronto. I may further state, that on one field where I had applied an extra quantity of gypsum to the green crops, I had upon four acres the finest show for wheat that ever I saw in Canada, but it was entirely destroyed by the fly. I intended to take a crop of barley, as it was in condition to stand it,

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SIR,— Tuesday I found erment superint tion of v It is about two bui caught sists of and the are alre eral var differ gone the middle ment, water twelve are al ronnd, which larger through covers is a lov eggs h from s off th boxes, ling th pot. of whi same n are an pidity The s from t not ye the liv is end but I hatch the la for th young hard When charit their to go in the starve there