

* Open Letters. *

Grape Growing at Goderich.

SIR,—Having seen Mr. Cameron's partial recommendation of Rogers' No. 3, I will confirm what he says about its setting poorly at times. It set so poorly with me that I cannot recommend planting it, although it is a good grape, about as early as Moyer. I have thirty-five varieties, and my exhibit at the Great Western Exhibition at Goderich last fall helped to make the grape exhibit the best in the Province, i.e., of out-door grapes. I had single bunches of Rogers' No. 4 and Eaton that weighed 2 lbs., and other varieties which weighed nearly as much. I will name three of the best varieties of grapes, according to my experience: Rogers' No. 4 (black), Vergennes (red) and Moore's Diamond (white). These are all sure croppers, of excellent quality. Rogers' No. 4 is as prolific as Concord, it has a larger and better flavored berry, and keeps longer. The vine is hardy and vigorous. The Vergennes is as hardy as Rogers' No. 4, very vigorous and produces regular crops of splendid fruit, which keeps until spring in perfect condition, packed in sawdust. The Moore's Diamond is a heavy cropper and is a most beautiful white grape. It is a little earlier than Concord, as strong in its habit of growth and as hardy. I have had no mildew, not even on my Brighton, for several years since I commenced washing my vines in the spring with a solution of sulphate of iron before the growth starts, giving them also a perfect cultivation and proper pruning.

W. WARNOCK, Goderich.

Heating Small Conservatories.

SIR,—I notice in the May issue of the HORTICULTURIST, page 178, a rather captious criticism upon my answer to a question regarding the heating of a conservatory, in the March number.

I state that a certain amount of pipe will answer, if the temperature does not fall below twenty-five degrees. The critic considers the answer unsatisfactory, as the temperature often falls fifty degrees below. While I did not state it in as many words, I certainly intended to fix the limit at twenty-five degrees below zero, and should have gone to the trouble to have so stated, had I supposed that your readers would not understand it that way. There are none of our northern States where the temperature does not occasionally reach zero, and here, in central Michigan, twenty-five below zero is not uncommon; so that I should hardly think of placing twenty-five above zero as a minimum temperature for a pipe in Canada.

So far as the amount of pipe recommended is concerned, I find no criticism of that, and

after further consideration, I see no reason for changing the figures given.

Criticism No. 2, related to the fire surface recommended, which was four runs of two-inch pipe the length of the fire-pot. Mr. Critic claims that one would be ample. It is customary in estimating the fire surface required in a heater, to take one-eighth of the radiating surface to be supplied, and I followed that rule. While a smaller amount might answer, in the present case where, in a hot-air furnace the economy of fuel consumption need not be considered in determining the size of the heating coil for the conservatory, I should by all means prefer to have four pipes, rather than one in the coil, if on a winter morning I were to find the fire nearly out and the temperature twenty-five degrees below zero outside; and as this is likely to happen in the case under consideration, I should use four pipes rather than a smaller number.

The third criticism was also uncalled for, as I do not differ from Mr. Captious Critic as to the reason for the circulation of the water, and always like to carry the pipes well above the heater. I could have answered the question by saying "No," but it seemed to me that Mr. German was afraid that he would have trouble with the circulation, owing to the heater being in the basement of the dwelling and a number of feet from the conservatory; and I tried to assure him that he need have no fear, "as the entire length of the circulation" will not be more than fifty or sixty feet." I beg to differ from Mr. C. C., as I think "the working of pipes does depend on their length," as can readily be ascertained by comparing the circulation of a long run of small pipe with a short run, when both are but slightly above the level of the heater. While Mr. German did not tell the height of the radiating pipes above the heater, I inferred that it must be at least six to eight feet from the lowest part of the returns to the highest point in the circulation, as the heater was in the cellar of the residence, while the conservatory was built against it.

I noticed several questionable statements in the interesting dissertation of your correspondent, but will only comment on one of them, which is so utterly opposed to the best practice of the present time, that it may lead to serious mistakes. In paragraph (8) he recommends 20 gallons of water for heating 1000 cubic feet (which would be all right for a certain size of pipe and for a house of a certain shape), instead of recommending a certain ratio between the radiating surface of the coils and the exposed glass surface, as is the usual method. The error can be seen when we consider that a four-inch pipe offers only about four times as much heating surface as a one-inch pipe, while it contains sixteen times as much water. If the rule of Mr. C. C. is correct, a linear foot of four-inch pipe