

to take the same kind of cutting—that is, with a heel, but before the growth is quite matured—"half-ripe" is the term used. *Clethra arborea* and *Choisya ternata* are instances of this. There are also other methods, chiefly economical, which need not be mentioned, as they are not conformable to conditions in this country.

#### SOIL FOR CUTTINGS.

Soil that will not set hard during dry weather nor run together in wet weather, and that will hold a fair amount of moisture in summer-time, is suitable for open-ground work. Light manuring is advisable if the soil is poor; most of the plants raised from cuttings in the open ground have to pass a year in the cutting-beds, and little growth would be made in poor ground. Cuttings of soft-wood plants that are struck in pots or boxes usually remain in them but a short time, and in this case the quality of the soil, apart from being mechanically right, is of very little consequence. When, however, the cuttings are a long time rooting it is almost a necessity to employ poor soil. The term "poor" here implies absence of manure or fertilizers rather than natural soil of the poorest description, though that description of soil would answer better than naturally rich soil. For cuttings struck in artificial heat soil ordinarily used for potting does very well, with the usual surfacing of sand, of course. For boxes intended for conifer-cuttings which will not be disturbed for a year anything of a perishable nature, such as leaf-mould, should be avoided. Fairly good and clean garden soil will answer, its quality not being of much consequence, as it will have a covering of a good inch deep of sharp sand. For pot-work for shrub-cuttings which will occupy the pots for about a year the quality of the soil is of more importance; either good fibry loam or a mixture of loam and peat (when it can be got) will answer well. What is required is soil that will keep sweet as long as the cuttings remain in it. Very little top growth will be made in the boxes or pots, for the young plants are to be taken out when rooted and placed where they will make growth. As top growth will not be made to any extent richness of soil would be wasted. Moreover, the constituents which would make it rich would tend to make it sour. And equally important is the fact that plants make more roots in poor than in rich soil.

#### STRIKING CUTTINGS IN THE OPEN GROUND.

For the striking of cuttings in the open ground it is absolutely necessary to make the base of the cutting firm; soil must come in close contact with it and be trodden firm. The plan is to first dig a narrow strip, keeping a good trench open in front of the spade. When a sufficient width is dug to accommodate a row of cuttings draw a line along the strip clear of the trench. Then, holding the spade perpendicular, strike a straight wall along the line, the displaced soil falling into the trench. The depth to strike the wall depends on the length of the cuttings, which should be uniform. The cuttings are then placed along the line, their bases entering the soil deep enough to keep them in position. When a row is filled with cuttings a light spit of soil is dug against them and trodden firmly down. Then proceed to dig another strip, filling the soil up to the proper level as regards the tops of the row of cuttings, breaking all lumps and leaving