



Norway Maple

IN GENERAL, the lover of our North American trees is always a bit inclined to look askance on the planting of foreign species. But even the most hundred per cent. of us is willing to make some exceptions, even as the most ardent advocate of the restriction of human immigration will admit and even welcome some nationalities.

And as the immigration restrictionist is usually willing to see the bars lowered for the tall, hardy sons of the North, the tree lover also is willing to make place for the trees that look down upon the fjords. Norway spruce and Norway maple are desirable immigrants.

The Norway maple is a close cousin to our hard or sugar maples. It looks so much like them, indeed, that a second glance is usually needed to detect differences. The differences are there, nevertheless, and in some of them reside the precise point of the Norway maple's high quality as an ornamental or street tree.

In the first place, the Northern tree has a very neat, compact, close-shaven appearance, forming a fine round ball of a head, as though someone had gone over it with hedge shears. It is even more compact and densely-leaved than the top of our hard maple. The leaves average rather smaller than those of the American hard maple.

The seeds, too, mark it off from the native species. In the sugar maple the two seeds are set nose to nose at a blunt angle, but in the Norway maple the angle is even blunter, amounting frequently practically to a straight line. A pair of these seeds might almost be used as the model for a bizarre little airplane.

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Forest soil, because of its humus and leaf litter, is softer and lighter even than newly plowed loam.

ENGINEERING

Artificial Lagoon Ends Ice Troubles in Water System

ICE TROUBLES threatening the enlargement of the water supply of Detroit might be avoided, it was argued, if only a big lagoon existed in the Detroit River. Engineers got together and removed the "if"; they built a lagoon.

Such a method of insuring an iceless flow of water from the river into the filtration plants of the city, an account in the *Engineering News-Record* explains, is a distinct departure from modern waterworks practice. It required extensive dredging below the river bottom and the building of two rock dikes. Piers of steel and concrete were constructed to define the upstream and downstream sides of the entrance to the lagoon, and provision was made for an outlet to remove refuse.

The effectiveness of the lagoon in eliminating, or greatly reducing, ice troubles lies in the operation of natural phenomena. Needle-like ice, the type which is the chief offender in the Detroit region, will not form under an ice sheet. These ice sheets, in turn, form most quickly over a quiet body of water, such as is provided in a lagoon. Furthermore, given slow enough stream velocities and sufficient time, the needle ice carried in from the river will rise to the surface and stick to the ice sheet before reaching the intake tunnel of the water system.

As adequate data was lacking on the

matter of "ice" lagoons, dimensions of the one in the Detroit River, situated at the head of Belle Isle, became a question of judgment. The lagoon now is almost half a mile long, with widths varying from 480 to 280 feet. It has the shape of a long, narrow oval open at one end, and comprises a water area of 20.7 acres. The lagoon feeds the new intake of the Detroit waterworks which is estimated to have sufficient capacity to meet demands of the water system thirty or forty years hence.

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PHYSIOLOGY

Climbing Mount Everest Possible With Oxygen

MEN can climb to the highest earthly mountain altitudes by simply carrying thirty cubic feet of oxygen, breathing it instead of air, Prof. J. Barcroft of Cambridge University contends. Climbing Mt. Everest is an engineering problem, not mountaineering, since the Barcroft experiments show that a man breathing oxygen at 170 millimeters pressure, far less than that at the top of Mt. Everest, can climb a thousand feet hourly. Prof. Barcroft urged experimentation before further expeditions to the Himalayas.

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