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Habit Forms of Acer saccharum

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Present botanical treatment admits but two habit forms of *Acer saccharum*, which does not adequately account for what may be found in collections or be purchased from nurseries. Two clones are involved, both introduced by the same nurseryman, F. L. Temple, when owner of the Shady Hill Nurseries at Cambridge, Mass. Temple gave to his first introduction (in 1885) the name "columnare," and to the second (in 1887) "monumentale." Unfortunately, in subsequent botanical and horticultural treatments the epithet "monumentale" has been applied to the narrower tree introduced by Temple as "columnare." Conversely, the wider and more useful clone also has generally been called "columnare" in the fewer references made to it. In the presence of this confusion and with regard to the history and associations of the trees, two new clonal names are here proposed for use in nursery lists and horticultural literature. The names "columnare" and "monumentale" should be rejected under the authority of Sect. D, Art. C. 10 of the International Code of Nomenclature for Cultivated Plants, wherein it is provided:

"When revival of the earliest cultivar-name would cause confusion, it is to be listed as a synonym."

*Acer saccharum* cl. 'Newton Sentry' (fig. 00-B)

In "Horticulture" of March 15, 1924, A. H. Fewkes recorded some of the history of this clone. He reported that in 1871 and 1872 the tree grew in the yard of the Claflin Grammar School, Northville, Mass. Sometime before 1885 it was moved and became established in Newton Cemetery, for in that year Jackson Dawson reported that he took scion material from the tree. Somewhat earlier F. L. Temple propagated stock from it and listed it in his 1885-86 catalogue. Temple's catalogue description in 1887 was as follows:

"Acer saccharinum columnare

This is a most remarkable form of the Sugar Maple, which grows in a compact, columnar shape, the most picturesque tree in this latitude. The original tree of this sort is 30 feet high, and only 2 1/2 feet in diameter at the top. The leaves are thick and leathery, and of a very dark color, which gives it a rich appearance. This tree which was in-

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1If ever successfully introduced into cultivation, the unique tree in North Woodstock, N. H., named by Fernald as *A. saccharum* f. *conicum* should be treated as a clone.
Fig. 31. *Acer saccharum*, silhouette of branch systems: A, 'Temple's Upright'; B, 'Newton Sentry'.
roduced by me, is a most remarkable one, and will be the parent of a new type of lawn and landscape tree, until now missed in this country, picturesque towering shafts of foliage to crown a hill, or lift up the center of level plantations. I have the entire stock of this tree, and take great pleasure in offering it to my customers."

The above catalogue description indicates that the tree matching this description, and now in Newton Cemetery, was the source of Temple's "columnare." Dark, thick and leathery leaves are characteristic of Newton Sentry Maple, as evidenced by its being once considered by Sudworth and by Rehder to be a form of A. nigrum.

A confusing entry was made by Rehder in the synonymy of his A. saccharum f. monumentale as given in his "Bibliography of Cultivated Trees and Shrubs" (1949) where he referred to a Plate 5 in Temple's Catalogue for 1889. This statement seems to have been derived from Sudworth's reference to "Temple's Cat. Trees, Shr., Pl[ants]., [page] 5 (1889)." No illustration of either of his maple introductions was published by Temple. Rehder misinterpreted Pl.

for "plate" when examination of the catalogue would have shown it to stand for "plants."

I visited the original tree in Newton Cemetery in March of this year. It is identified by a bronze marker placed beside it in 1937 by a local chapter of the Daughters of the American Revolution. Its dbh (diameter breast high) is 3 dm.; its height an estimated 14 m. Structurally the specimen is not strong, as the angles of its ascending branches are weak. It has suffered the loss of one branch but, if spared too severe storms, it may live for many years.

Our records at the Rochester Parks indicate that Newton Sentry Maple was received there as buds for propagation from the Arnold Arboretum in July, 1922. Two trees prominently located in front of Lamberton Conservatory, Rochester, have had their secondary branches removed because of awkward placement, a situation that results in non-typical, single-trunked specimens. With trunks of 15 cm. (dbh) and heights of 10 m., these perpendicular accent trees are clothed with horizontal branchlets extending two feet or less. More typical specimens are in the Arnold Arboretum maple collection and are occasionally found, also, in older estate plantings. I consider Newton Sentry Maple to be of secondary importance for ornamental use.

Acer saccharum cl. 'Temple's Upright' (fig. 31-A)

The origin of this clone seems never to have been recorded. Certainly it is but one of many broader but slow-growing upright types that have been noted some by botanists over the years. No inclusive botanical forma, however, can be found to have been proposed. This maple is Temple's 1887-88 introduction which he called "monumentale," and described thus:
"A. s. monumentale

Another variety with similar habit, except that the lower part of the top grows somewhat wider, the whole top making a greatly elongated bell-shape. Original tree 33 feet high and 3 1/2 feet wide across lower branch."

It is interesting to note that the Ellwanger and Barry nursery, despite Temple's apparent preference for the narrower tree, bought and propagated the broader tree. The tree from which their nursery stock was grown still stands near the old office building on Mt. Hope Ave., Rochester. It is large (dbh - 5 dm.; height - 15 m.) and far surpasses in size the original of Newton Sentry Maple. For years the Ellwanger and Barry catalogue listed "Monumental Sugar Maple," described and identified as follows:

"A. saccharinum monumentalis

A fine variety of the Sugar Maple, of pyramidal compact habit, the foliage of the second growth is of a brilliant crimson, which contrasted with the rich green of the older foliage produces a charming effect. Distinct and handsome."

In Rochester this clone has been used for planting the narrower streets where the normal-sized trees become liabilities. Westfield Street, in the south-western part of the city, now has a complete planting where trees of 6 m. height make a pleasing vista. It has attracted the attention of nurserymen who are producing street trees. Promotion has been hindered, however, because of the nomenclatural confusion and misidentity of this clone with true 'Columnare'. Both have passed under the same name. It is hoped that this rejection of the confusing Latin epithet and substitution of the name 'Temple's Upright Maple' will correct the situation. The tree has real merit for ornamental plantings.

The distinguishing characters of these two clones are:

Sugar Maple 'Newton Sentry' (fig. 31-B)
Many ascending branches.
No dominant central leader.
Leaves dark green, leathery texture, margins wavy (as of Black Maple).

Sugar Maple 'Temple's Upright' (fig. 31-A)
Few ascending branches.
Strong central leader which produces stubby lateral branches especially when secondary branches are removed.
Leaves yellow-green, not leathery, margins plane (as of Sugar Maple).