

Georgia. But this is *more remarkable*.”¹ It seems strange that the growth of this plant in the middle region of the State should have escaped the notice of that acute observer, the Rev. M. A. Curtis. That it did will be seen from the following, taken from his catalogue:²

“*Oval-leaved Laurel* (*R. catawbiense* Michx.).—This splendid laurel is chiefly confined to the highest summits of our mountains, but is said to extend somewhat into Virginia. It is often confounded with the preceding [*R. maximum* Linn.], but besides its different locality, growing only on the tops of such mountains as the Roan, in Yancey, and Negro Mt., in Ash, it blossoms earlier than the other, though at a higher elevation, has larger and more intensely colored flowers, and shorter and broader leaves. * * * * It stands cultivation pretty well in the middle district.”

Since the above correspondence I have been informed that this plant grows luxuriantly on the north side of the Oconechee mountains (hills from two hundred to three hundred feet high), near Hillsboro, the home of the late Dr. Curtis, at an altitude of from seven hundred to eight hundred feet. Not only does it stand cultivation in the middle district *where it is indigenous*, but it seems to thrive in the lowland of the eastern part of the State. Plants may be seen at Tarboro, in Calvary churchyard, where they were planted many years ago by my friend, the Rev. Dr. Cheshire.—*Prof. F. W. Simonds, University of North Carolina.*

THE TWINING OF THE STEMS OF THE HEDGE BINDWEED, ETC.³—Several plants of *Calystegia sepium* (hedge bindweed) were faithfully studied, for some weeks, by S. W. Beaumont. It is generally stated that the stems of this plant ascend by coiling against the sun, or from right to left, as viewed from the outside. On a stalk of nettle were observed two vines twining in opposite directions.

By tracing these two vines, they were found to preserve their opposite directions for their entire length. Another plant had two branches starting near the root. Each of these branches, and every branch on these divisions throughout, preserved the same course. This was also found to be the case in a vine twining in an opposite direction. Experiments to induce vines to reverse their course proved of no avail. Straight stakes were placed in the ground for the vines to twine about. After arriving at the top, the vines fell or lopped over; some drooping slightly, some ascending. If the top of a plant is weak, the vine often leaves it before reaching the top. Sometimes the vine becomes

¹ Dr. Gray has kindly added a note on this point to an article in the Bulletin of the Torrey Botanical Club for July and August, 1879. See page 336.

² The Woody Plants of North Carolina, Raleigh, 1860, p. 97.

³ Abstracts from papers of students of Michigan Agricultural College, made by Professor W. J. Beal.

twisted, but not always. The vines are quite slender, and often reach off from their support to a great length. One branch reached four feet and six inches, nearly in a horizontal position; another, five feet and three inches; another, nearly six feet. This last, like the rest, was a single vine, and at the largest place only a sixteenth of an inch in diameter. One branch, which reached out twenty inches, passed over a sixth of the circumference in three-quarters of an hour. Sometimes the vines can almost be seen to move. They appear to move most rapidly in the hottest part of the hottest days.

Mr. T. F. Millspaugh experimented with wild cucumber (*Echinocystis lobata*). He trained a plant on a straight upright stake. The vine grew erect until it was about fifteen inches above the stake, and then bent over at about an angle of 45 degrees. It gradually dropped to a horizontal position and grew four feet and nine inches beyond the stake. Then it turned, and began to grow back on itself down to the stake. Here it neither went up nor down, as we should suppose, but grew right on the other side of the tip of the stake, till, at the time of writing, it had gone twenty inches. Before the vine doubled back on itself it described a complete circle in one hour and forty-five minutes. It went fastest on one hot day, between one and three o'clock. Tendrils were made to coil by irritation of various objects. He examined fifty specimens of tendrils which had made coils. It is well known that when these become attached at the extremity, that they turn in one direction for a part of their course, and then turn in the opposite direction. In one tendril there were seven of these changes in direction; in two there were six changes; in six there were five; in eleven there were four; in twenty-three there were three; in five there were two, and in two there was one change.

BOTANICAL NEWS.—The *Bulletin* of the Torrey Botanical Club, for July and August, contains interesting notes of a botanical excursion into North Carolina, by J. H. Redfield, to which Prof. Gray contributes foot-notes. The discovery of *Epipactis helleborine*, var. *viridans* Sim., in the vicinity of Syracuse, N. Y., by Mrs. Church, a member of the Syracuse Botanical Club, is recorded. To the September number Mr. C. F. Austin contributes some bryological notes.—In the *Botanical Gazette* for October, Prof. Gray draws attention to Poisson's account of the beheading of flies by *Mentzelia ornata*, the victims being caught in the barbs of this plant. The flies, attracted by the viscid matter in certain of the bristles, "thrust in their proboscis between the thickly set glochidiate bristles to feed upon the secretion of the glands between and below. The retrorse barbs interpose no obstacle to this; but when the proboscis is withdrawn, its dilated and cushion-like tip catches in the barbs, and holds all fast. The harder