

was placed the air was caused to stream inwardly through the stomata and out of the petiole continuously for two and one-half hours without renewing the vacuum.

AN UNUSUAL IRIS.

F. M. ANDREWS, Indiana University.

Two years ago I transplanted the rhizomes of some Irises to a rather damp location. All were the common large blue flag (*Iris versicolor*). The rhizomes sent up the aerial parts and produced 60 flowers of which three were unusually large, being 12 cm. long and nearly as broad, whereas the usual length is 5 to 8 cm. This represents an increase in size of at least one third. The inner segments were pure yellow and only about one-half the length and breadth of the sepals. Ordinarily the flowers of this species are colored yellow, green or white toward the center¹. The petals were marked in places by purple dots which recalled to a degree the appearance of the flower of *Belamcanda chinensis*. The rhizomes from which these three flowers above mentioned came bore in every other instance blue flowers of the normal size and color.

SECOND BLOOMING OF SNOWBALL BUSH IN THE SAME YEAR.

F. M. ANDREWS, Indiana University.

On September 4, 1922, the writer noticed an account of a snowball bush which was in bloom for the second time that year. The plant was at the home of H. P. Carpenter of Elwood, Indiana, who, upon request, very kindly forwarded to me a cluster of the flowers and a branch with some leaves so that a study of the specimen could be made. He wrote that "the first time it was in bloom the bush was literally covered with blossoms, but the last time there were only a few, probably a dozen or more". This agrees with some other plants which have bloomed more than once in a season and to which the author has previously made reference¹. The second blooming was conspicuous in specimens that were more or less diseased, due apparently to the attack of fungi or other injury. Injury may easily be caused by the attacks also of insects of various kinds and the snowball is at times injured to a high degree by this means.

The characteristics of the specimens at hand agree with *Viburnum opulus* or what is sometimes called the guelder rose or snowball. The flowers are white and are borne in a long peduncled cyme about 6 cm. in diameter. This however, falls far short of the usual size of the normal cyme clusters of *V. opulus* which often average 12 cm. in diameter.

¹ Gray, Asa. New Manual of Botany Seventh Edition.

¹ Andrews, F. M. Proceedings of the Indiana Academy of Science 1905, pp. 187-188; 1909, pp. 373-374; 1911, pp. 279-281.