We found a microscope whose 16-mm. objective gave a field whose area was 2.01 square millimetres. This was near enough the whole number 2, so that the "vein-islet number" could easily be calculated.

The term "vein-islet number" was coined by Levin (4) which he defined as "the number of vein islets in a square millimetre."

In our method we used a mechanical stage and thereby covered the entire piece removed from the leaf. The vein islets in each field were counted, and the average number per field for the leaf determined. The number of fields counted varies from about 20 to 100 per leaf. This number divided by 2 (because the area of our field was 2 square millimetres) gives the number of vein islets per square millimetre or the "vein-islet number." Of course, several leaves of each species were counted in this manner in order to make the determination represent the species.

We believe that this is a simpler, more direct and shorter method than any heretofore suggested for determining the size of vein islets of leaves. It is so simple that undergraduate students in microscopy find no difficulty in using it.

We have applied the vein-islet method to distinguish between the leaves of Atropa Belladonna and the leaves of Phytolacca decandra. The latter being often used to adulterate the former. The average vein-islet number of Belladonna is 5.27 while that of Phytolacca is 2.57. With the vein islet of Phytolacca twice the size of that of Belladonna, these two leaves can easily be distinguished by this method. The contrast between the two is shown in slide No. 1 which was made from camera lucida drawings, the magnification being the same in each case.

The leaves of Stramonium and Hyoscyamus are often confused. The average vein-islet number of Datura stramonium is 25.7 while that of Hyoscyamus is 11.8. Slide No. 2 shows the contrast between these two.

Slide No. 3 was made from camera lucida drawings of the vein islets of *Mentha piperita* and *Mentha spicata* and shows how this factor can be used to distinguish between the mints. The vein-islet number of *Mentha spicata* was found by us to be 17.8 while that of *Mentha piperita* is 5.78.

BIBLIOGRAPHY.

- (1) W. Zalenski, Ber. deut. bot. Ges., 20 (1902), 433.
- (2) W. Shuster, Ibid., 26 (1908), 194.
- (3) H. M. Benedict, "Memoirs of the New York Experimental Agricultural Station," June 1915, 281.
 - (4) Frederick A. Levin, Quarterly Journal of Pharmacy and Pharmacology, 11 (1929), 17.
 - (5) M. R. Ensign, Am. Jour. Botany, 6 (1919), 311. Ibid., 8 (1921), 433.

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GINSENG EXPORTS FROM UNITED STATES.

Exports of ginseng from the United States, destined principally to China through Hong Kong, gained from approximately 202,800 pounds valued at \$1,877,000 in 1930 to 260,500 pounds worth \$1,896,000 in 1931. Reports from China indicate a continued large consumption during the past year, fair profits having been realized by local dealers notwithstanding unfavorable exchange. Hong Kong ginseng dealers requested on February 17, 1932, that importers delay deliveries for one month owing to unsettled conditions of the North China market. (Assistant Trade Commissioner David M. Maynard, Hong Kong.)