behalf of the Mexican Public Health Department the biology and distribution of the simulid flies concerned in the transmission of the microfilariae of *Onchocerca caecutiens,* I made the same observation as Strong in Guatemala on the concentration of microfilaria about the point of the bite and suggested also in my report, read before the III Congress of the Pan-American Medical Association, Mexico City, July, 1931, and published on September 10, 1931,[1] the same method for diagnoses of Onchocera infestation in man, in dissecting engorged simulid flies. It is very interesting to know that Professor Chas. F. Craig[2] has made the same observation with respect to the transmission of *Wuchereria bancrofti* by *Culex quinquefasciatus* in the Philippines. It would be an easy task for medical officers stationed in tropical Africa, where microfilaria-infections are frequent, to add more observations to the reported cases.

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BULBS FROM HOLLAND

I EXPECT that by now you have learned of the fictitious nature of the "Hollandia's World-Famed Flower Bulbs" advertisement which appeared in SCIENCE in September, and in other American magazines. It was exposed in the Report of the Chicago Better Business Bureau for November 4. According to the report:

> A fraud order was issued by the Post Office Department against Bulb Nurseries "Hollandia" and Harry Bruhl, its director at Voorhout by Hillegom, Holland, for fraudulent practices in the sale of flower bulbs. A previous fraud order was issued on March 18 against L. H. Straathof and others of Hillegom, Holland, upon evidence showing that under those names a scheme to defraud was being conducted through United States mails.

From an American bulb grower's view-point, this advertisement is of concern because it mentions the "certificate of health" supposed to accompany these bulbs. As a matter of fact, our great American bulb-growing industry has been made possible through the establishment of quarantine regulations necessitated by diseases harbored in foreign grown bulbs. The better Holland growers have tried to control these troubles but with varying success. Plant disease control largely depends on efficient crop rotation. This important measure is exceedingly difficult in a locality where usable land is limited and has given rise to certain rather artificial methods of culture. For example, it is a Holland custom to attain partial crop rotation by deep spading and turning the soil upside down, thus creating a "new" field. From a phytopathological view-point such methods can not compete with those possible in American bulb areas where land for rotation is unlimited and climatological factors more favorable.

Competent observers have pointed out that the success of the Holland bulb growers is not attributable to favorable climatic and edaphic factors but to the industry of the growers who have overcome unfavorable circumstances by what may be considered artificial methods. These methods have produced fine bulbs, but we feel that out of fairness to American growers it should be pointed out that the standard of American grown bulbs on a disease-free basis is equal to or higher than that which obtains abroad.

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SCIENTIFIC APPARATUS AND LABORATORY METHODS

THE "ROTETTE" OR AN APPARATUS FOR HANDLING SMALL QUANTITIES OF LIQUIDS WITH RAPIDITY AND PRECISION

IT was found in using the pipette previously described[1] that even higher precision was attained by mounting the pipette in bearings at a convenient angle. In this arrangement it could be used directly as before or it could be connected to another tube, either fixed or movable, by means of a rubber tubing. This greatly extended the usefulness of the device since larger quantities of mercury could be safely handled, though there was still a limitation due to the weight of the mercury and its tendency to surge when large quantities were employed.

The employment of a helical glass tube in place of the two bulbs previously used greatly simplified the problem and extended the practical limits as to quantities for which it might be adaptable. With the helical tube it is no longer necessary to have a volume of mercury equal to the volume of liquid to be handled, since only enough mercury to fill the lower half of one turn of the coil is required. The controlling factors are diameter of tubing and of coils and the number of turns. A proper choice of these makes it possible to control the volume desired. With this form the volume displacement is proportional to

[1] *Medicina, Revista Mexicana:* Vol. xi, Year XII, No. 151, pp. 753–761 (see p. 757).
[2] SCIENCE, 1952, May 27, 1932, pp. 561–2.
[1] E. L. Harrington, SCIENCE, p. 201, Aug. 22, 1930.