This is by way of being a historical note, written largely as a matter of personal reminiscence (wherefor the person singular), and be-

[8]WADE, H. W. The lepromin reaction in normal dogs; preliminary report. Internat. J. Leprosy **9** (1941) 39-56.

[9]WADE, H. W. Sensitization of dogs by the lepromin reaction. Mem. V Congr. Internac. Lepra, Havana, 1948; Havana, 1949, pp. 617-620.

cause it seems that the present generation of leprosy workers in general is not aware of the difficulties which were met with in the past in obtaining material for the bacteriologic examination of the skin lesions of leprosy.

The first publication on the subject of which I am aware was a paper read before the International Leprosy Conference held in Berlin in 1897, by L. J. Alvarez,[1] of Honolulu (father of the widely-known clinician Walter C. Alvarez, formerly of the Mayo Clinic). His practice was to remove a small piece of skin surgically, grind it up in a mortar with a few drops of saline, and make smears of the resultant fluid. The limitations of that method are obvious.

A still less satisfactory method was used by a New York dermatologist who once, around 1912, visited the Louisiana Leper Home where he took several small biopsy specimens. After fixation, these were taken to C. W. Duval's laboratory at the Tulane University Medical School for sectioning. With the method of staining bacilli then available (especially the deparaffinizing with xylene), I felt it to be something of an accomplishment when any material number of bacilli were demonstrated.

Once, in my own slight experience when at Tulane, I made an attempt to obtain bacilli by inserting a hypodermic needle attached to a dry syringe into the superficial portion of a lesion and aspirating. Twenty years or so later an improvement of that method was demonstrated while I was visiting a leprosarium in South Africa. The syringe contained a little saline, which was injected and then aspirated. Neither procedure had anything to recommend it.

Once in the 1930's, in a clinic in China, I watched with a certain degree of fascination while a native technical assistant tried to obtain bacilli from a large, circinate minor tuberculoid lesion by scraping material, mostly epidermal, from the surface of the pale center of the pale center of the lesion. Nowhere else was anything quite like that ever seen.

Long before that time Muir had introduced the skin-clip method[2] which for a time was widely used. This involved clamping an earlobe, or part of the surface of a skin lesion, with curved hemostatic forceps and snipping off a bit of the skin with curved scissors; the raw surface of the clipping was then vigorously rubbed on a slide. The number of smears that could be made in that way from a given patient was distinctly limited, as was the frequency with which such examinations of that patient could be made.

My own practical experience with the making of diagnostic smears

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[1]Alvarez, L. J. A new method of bacteriological diagnosis of leprosy. Mitt. u. Verh. internat. Wissensch. Lepra-Conf., Berlin; Bearlin, 1897, Vol. 2, p. 123.

[2]Muir, E. Handbook on Leprosy: Its Diagnosis, Treatment and Prevention. Cuttack: R. J. Grundy, 1921, p. 17.

—and here I indulge in some more reminiscing—began in 1916 after I had joined the Bureau of Science in Manila. Having seen some leprosy patients in New Orleans and at the Louisiana Leper Home, I was regarded as expert—at least as much so as anyone available—and was consequently appointed to the official Leper Examining Committee of the Bureau of Health. That was a three-man group which met twice a month at the leprosy department of the old San Lazaro Hospital, to examine for diagnosis the patients sent in as leprosy suspects, and occasionally candidates for discharge.

The main function of the committee was the examination of smears for bacilli. The expression often used in those days was "*examinar el sangre,*" and it was truly blood that was examined. Before the Committee convened, the resident staff had prepared the smears. Usually selecting a single lesion of each patient, it was punctured deeply with a surgical needle. The blood that exuded, or was expressed, was smeared more or less widely and thickly on a slide.

When lesions contained an abundance of bacilli there was no difficulty in the examination, but it was otherwise when they contained few or none. In such cases it was required that each member of the Committee should, in turn, spend a certain number of minutes on each slide before a patient could be declared negative and eligible for release. That was very time-consuming, and exquisitely boresome.

When, after a year or so, I succeeded to the chairmanship of the committee, the puncture method was promptly discontinued. Instead, the "scraped-incision" method, never previously seen or heard of, was adopted. The examinations thereafter were much less time-consuming, and the findings more dependable.

I was not studying leprosy at the time, and it was not until long afterward that the method was published. It was included in a booklet written with Rodriguez,[3] but was not contributed to the periodical literature until nearly another decade had elapsed.[4]—H. W. WADE

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[3]WADE, H. W. and RODRIGUEZ, J. N. A Description of Leprosy: Its Etiology, Pathology, Diagnosis and Treatment. Manila: Bureau of Printing, 1927.

[4]WADE, H. W. The bacteriological examination in leprosy. Leprosy Rev. **6** (1935) 1-8.