reaction or the tuberculous lesion. Furthermore, patients may after a time become refractory to one drug but not to another.

No evidence has been seen that any of the factors emphasized by Henderson have been considered by those who have experimented with antihistaminic drugs in the treatment of lepra reaction. It would seem, a priori, that in refractory reaction cases such drugs should be tried out in larger dosage and over longer periods of time than usual, perhaps shifting from one of the agents to another when indicated. If patients, who become so sensitive to antileprosy drugs that treatment has to be maintained at a low level or to be discontinued entirely, could be made tolerant by such means, as the brief statement of Mom and Basombrio suggests may be the case, it would render their prospects less discouraging.

In any such experimentation it would be well to distinguish, as a few have done, between “ordinary lepromatous,” erythema nodosum, and tuberculoid reactions, for although the precise mechanism of none of them is known the circumstances suggest that there may be essential differences between them and consequently there may be differences of response to any particular form of medication.

—H. W. Wade

THIOSEMICARBOZONES IN TUBERCULOSIS

Occasionally of late there have been seen titles and abstracts of reports of the use in Germany, during the past two years and more, of a new type of sulfur-containing chemotherapeutic agents for tuberculosis, drugs of a class called thiosemicarbazones. In the January 1950 issue of the American Review of Tuberculosis there are no less than four articles on the subject which, taken together, constitute a comprehensive review of the chemical features of these drugs and of animal and clinical experimentation with them, with particular reference to one which has been given the trade name of “conteben.” Three of these articles emanate from the laboratories of the Elberfeld Works of the Farbenfabriken Bayer, at Leverkusen. The fourth is a report of a special survey of the results of the clinical use of conteben in 10 of the 300 institutions in the western zone of Germany where, it is said, this drug has been employed in the treatment of a total of far more than 10,000 patients with various forms of tuberculosis. This survey, made possible by the Schenley Laboratories and the Bayer Company in the United States, was carried out on behalf of the American Trudeau Society, the medical section of the National Tuberculosis Associ-
ation, by Drs. H. Corwin Hinshaw and Walsh McDermott, two of the leading investigators in the field of chemotherapy of tuberculosis.

Impressive as are the reports from the German source, the indications of the value of conteben 1 will be given all the more attention because of the agreement of the American investigators on virtually all essential points, and their conclusion that the drug can no longer be ignored in the United States and should promptly be subjected to thorough experimental and clinical trials there—which of course does not imply—restriction to that country.

Because effectiveness of any chemotherapeutic agent in clinical tuberculosis may well have implications regarding leprosy which should not be overlooked, these articles are abstracted at some length elsewhere in this issue (p. 129). Of interest from the theoretical point of view is the conclusion of Behnisch, Mietzsch and Schmidt that, while the activity of the whole class of drugs to which the thiosemicarbazones belong depends on the sulfur atom, it does not depend on the sulfone or other groups; they hold that an open, chain-like arrangement of nitrogen and sulfur atoms as in the thiosemicarbazones is a much more active principle. Of interest to leprologists, and familiar to those who have been using the sulfones and especially the base substance diaminodiphenyl sulfone, are the small quantities employed, the slow attainment of maximum dosage and the individualization of patients as regards that maximum, the nature of the toxic effects (which, however, include apparent effects on the liver not as yet reported in connection with the sulfone treatment of leprosy), the prompt and striking effects on lesions of the mucous membranes, and the apparent usefulness in cutaneous affections.

Also of interest are the conclusion that the effects are due to a direct influence on the bacilli and not some hypothetical indirect action, and the changes of staining capability of the bacilli described by Domagk and in part also by Mertens and Bunge. It is said that they first lose their acid-fastness but—this by implication—persist as gram-positive forms; then gram-positiveness is lost, but still they may persist for a long time and be demonstrated by fluorescence microscopy. So far as we are

1 This is the Bayer name. Proposed proprietary names of other manufacturers in the United States, according to Hinshaw and McDermott, are "thione" (The Schenley Laboratories) and "myrione" (E. R. Squibb and Sons).
We are informed by the Schenley Laboratories, Inc., 350 Fifth Ave, New York 1, N. Y., that reprints of the articles referred to—which they had translated from the German for publication—are available for interested leprosy workers on request.

—H. W. W.

**PROPOSED AFFILIATION FEE**

In accordance with the resolution passed at the general meeting of the International Leprosy Association in Havana on April 11, 1948, that: "The Association shall seek affiliations of scientific and other societies and organizations working in leprosy, which are approved by the Council" [The Journal 16 (1948) pp. 250], a number of such organizations have been approached and have indicated their desire to be affiliated with the Association.

Some of these organizations, as well as office bearers of the Association, have been consulted for opinions as to what would be an appropriate annual subscription of such affiliated organizations to be paid to the International Leprosy Association. It seems generally felt that the sum must be small, and of the nature of a "token" subscription rather than a substantial contribution to the expenses of the Association. For the purpose, it appears that the sum of ten dollars (US $10) would meet with approval.

Members of the Association, and especially office bearers and councilors, are asked to express their opinions in this matter, on the understanding that their acquiescence with the suggestion indicated above will be taken for granted if the general secretary does not hear from them within three months after the publication of this issue.

—E. Muir.