more for their educational opportunities than other students except their actual breakage in the laboratories. The laboratory breakage and the cost of chemicals and supplies used in chemical laboratories for instructional purposes is not nearly so large as many people suppose. This misconception no doubt arises from the rather large laboratory fees charged at some institutions, where at least a part of these fees are used to buy research material and equipment.

It has been shown[1] that students breakage in chemistry per quarter credit hour averages about $0.40 for some land grant schools and that the total average cost of chemicals, supplies, stock-room operation and this breakage item is only about $0.90 per student quarter credit in all the courses ordinarily taught by a chemistry department where there are not a large number of graduate students doing research work. If a student carried a very heavy schedule of 50 quarter credit hours during the year and this was all laboratory science, his breakage would be approximately $20.00 per year. Seldom will half of his work be laboratory science courses, however.

I believe that Dr. Swan is correct in his belief that laboratory fees originated in the early days of laboratory work when it was only tolerated—not welcomed—and for that reason not permitted to have any money. Unfortunately this attitude still persists rather strongly among many administrators. They are not only niggardly in their money allowance for laboratory work, but they do not (nor do most of the crediting associations) give the laboratory instructor full credit for hours in the laboratory on the same basis as hours in the classroom, nor is there any allowance for this in salary. This is true, despite the fact that it frequently requires much more preparation to teach the laboratory work and that laboratory teaching is frequently much more exacting than lecture work. Many administrators are no doubt familiar with very poor laboratory work where little, if any, preparation is made and where the instructor sits in his office during the laboratory period. I do not, however, believe this is an excuse for classing all laboratory instruction in this category. Some lectures are given with the same lack of preparation.

I heartily agree with Dr. Swan in regard to the distribution of the laboratory costs among all the students, and Montana has made this uniform cost distribution in all the state schools. However, I believe the idea should be carried farther and laboratory science teachers given credit for laboratory teaching on the same basis as for lectures, quizzes and recitations.

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[1] Sheppard, *Journal of Chemical Education*, 10: 635–6, 1933.

INDIA AND AMERICAN SCIENCE

IN SCIENCE for July 14, 1933 (78: 2011, 36), "Taxila" writes about the attitude of Indian men of science towards American science. He says that the "opinion expressed by the majority of them relative to American scientific work was that much of it was 'spurious,' 'no scientific value,' 'will have to be carefully repeated,' 'take with a ton of salt all that comes from the New World,' etc." Then he goes on to say that such prejudices are not based on facts, and finally suggests as a solution that the answer to this prejudice lies in the fact that many scientific institutions and societies in America send their publications free to any one who chooses to ask for them. In the concluding paragraph "Taxila" gives the advice that it "is time for the experiment stations to revise their free distribution policy, especially in these depression days, and help also in acquiring a proper recognition for American science." If the free distribution policy were the real cause, it should be discontinued not only "especially in these depression days," but always.

As a native of India and as a man of science, may I be permitted to express my opinion on the subject? Unfortunately it is quite true that the opinion in India about American science is as "Taxila" has expressed it very clearly. But neither the explanation nor the remedy is what he would have us believe. Any one writing for "literature" is naturally seeking knowledge, and it would be unreasonable to suppose that he would take the trouble to write to America unless he were genuinely interested. Of course, there are some whose interest lies not in the scientific value of the publications, but in collecting a library, and such people, of whom there are many, need not be taken into consideration. I believe that those Indians who write for and obtain gratuitously bulletins and memoirs are sincerely grateful for any assistance accorded to them by the papers in question, and to the institution for its "desire to help and for the spread and dissemination of knowledge." It is true that certain institutions are "over generous" in sending all their publications, and that is a practise which should be discontinued by all means. In these days of specialization one can hardly find time to read all that is published in his own subject, and can therefore give no more than a passing interest to subjects which are not directly or indirectly allied to his own.

The reason why American science is looked upon with contempt is altogether different to what "Taxila" has suggested; it lies in the educational system of America. We all know that good and bad universities are to be found in every country. The custom in England, as also in India, is to always write the name of

the institution after all academic degrees, whereas it is not so in the United States. When we see a Ph.D. from an American university we are at a loss to know whether the Ph.D. was obtained from Harvard or Yale or from any other university whose charter has been granted only the year previous to the granting of the Ph.D. We moreover know that there were universities in the United States which would confer a doctor's degree with no more preliminaries than the payment of a specified fee. I know of one instance where a certain individual, an Indian, obtained a doctor's degree—I am not sure whether it was Ph.D. or LL.D.—by paying $100, and he had never been to America! These spurious titles naturally give a bad impression of the universities of America, and the good ones suffer with the bad ones. If, on the other hand, it were customary to write the name of the university after the titles are given, it could easily be seen whether the letters of the alphabet are purely ornamental or if they have any value, and when unaccompanied by the name of the institution granting the degree it could be taken as an indication that the *alma mater* is nothing to be proud of. But perhaps the course I suggest is contrary to democratic principles.

Another thing which brings American scientific institutions into contempt is their lack of understanding in certain respects. Very often a book will be published in India and after the author's name will be a note saying "Foreign Correspondent to X. Institution," which means nothing more than that the author once wrote a letter to the institution in question. Unless the author is a bona-fide "foreign correspondent" or whatever he professes to be, such "boosting" should be strictly prohibited, even going to the length of legally prosecuting the author and the publisher.

The proper recognition of American science—for which the writer, though not educated in any American university, has the greatest respect—can be achieved not by adopting mercenary policies, but by taking pride in the institution which has made us what we are.

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THE SENSITIZATION OF GUINEA PIGS TO POISON IVY

WHEN an acetone extract of poison ivy leaves is painted on the skin, normal guinea pigs show a slight inflammatory reaction. When, however, the treatment is reapplied after an interval, the second response is markedly stronger than the first. Also, the previously treated, sensitized animal will react to dilutions too weak to produce a definite response in normal animals.

When the extract is injected into the peritoneal cavity or into muscle, no change in sensitivity can be demonstrated later by painting the skin with poison ivy extract. It appears that sensitiveness of the skin is produced only by treatment of the skin.

One intravenous or intramuscular injection of the extract into sensitive animals does not alter the degree of response to later skin tests. Passive transfer of the sensitiveness has failed, not only when the blood of the sensitized animal was injected locally in the skin, but when it was given intraperitoneally to a normal animal.

Tests of sensitiveness by injecting the extract intracutaneously result in the same response in sensitive as in normal animals. If the extract is concentrated, necrosis results but if dilute, no reaction at all may result.

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SPECIAL CORRESPONDENCE

THE TEMPLETON CROCKER EXPEDITION TO THE SOLOMON ISLANDS

THE auxiliary schooner *Zaca*, owned by Mr. Templeton Crocker, returned to San Francisco on September 15, 1933, after conducting a preliminary medical, ethnological and natural history survey of parts of the Solomon Islands. In addition to Mr. Templeton Crocker, leader of the expedition, the scientific staff included Dr. Sylvester M. Lambert, of the Western Pacific Health Service; Mr. Gordon White, of the British Solomon Islands Health Department; Malachai, native medical practitioner of Suva, Fiji; Mr. Gordon MacGregor, ethnologist on the staff of the Bernice P. Bishop Museum; Mr. Norton Stewart, naturalist of Santa Barbara, Calif.; Mr. Maurice Willows, entomological collector; Dr. John Hynes, of New Haven, Conn., ship's surgeon, and Mr. Toshio Asaeda, artist and photographer.

The *Zaca* left San Francisco on March 2 and sailed *via* Ensenada, Mexico, to Honolulu, where her outfitting was finished. En route to the Solomons she stopped at Palmyra Island, where plants and insects were obtained, and at Puka Puka, where other collections were made, together with ethnological notes. After calls at Pago Pago and Suva, and an official entrance into the Solomons at Vanikolo Island, Santa