

DENTISTRY AND THE GOOD NEIGHBOR POLICY

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In recent years much has been said about Pan Americanism and the good neighbor policy. Some tangible efforts have been made to effectuate this policy. The aim should be to draw the Americas together culturally, economically and politically. Education for basic understanding, cooperation and wherever possible, reciprocity should prevail. In the field of reciprocity, there is probably much that the cultures of each of the countries of North, Central and South America have both to give and to receive.

A half century before Jamestown was settled, universities had already been established at Mexico City and Lima. During the sixteenth century the Spanish Universities were the mecca of learning of Europe, and during this time Spanish-America had twice as many universities as did Anglo-America, and they ranked favorably with those of Spain. Divinity and philosophy were the chief studies, but medicine was well taught, as likewise were mineralogy, botany and ethnology. Dentistry, of course, did not yet exist as a profession.

Approximately one hundred years ago dentistry had its inception in the United States. For the first fifty years, progress was consistent but relatively slow. During the last five decades, however, there have been many signal advances—so much so, that students have routinely come from all parts of the world in order to study “American Dentistry” and to be the recipient of a diploma from an American Dental College. This diploma usually occupies a place of honor on the wall of the doctor’s office.

During the past several decades, the requirements for entrance in the American Schools of Dentistry have been made more and more stringent. The course of study has been increased from a period of two years to one of six years. Although only two years of predental study is required, more and more applicants for the study of dentistry are presenting themselves with the baccalaureate degree, and often with the masters degree or even the doctorate in philosophy. This means, of course, that the level of the student from the cultural and educational point of view is much higher.

With the increase in the number of years of study in the dental school have come additional courses or subjects of study. The dental student today is required to know the basic fundamentals of medicine. In fact, the liaison between medicine and dentistry seems to be drawing closer and closer each year. In some universities such as Harvard and Columbia, the Dental Schools are under the aegis of the Dean of the School of Medicine.

In dentistry as in medicine the order of the day seems to be specialization. The amount of knowledge and information required of each doctor becomes greater and greater, and thus, particularly in the larger cities, the doctor often finds it easier to devote himself to one of the specialized divisions of dentistry. This may be advantageous, if the specialist does not lose his perspective and realizes that his problem is only one part of the patient and must be correlated with the patient as a complete entity. There still remains much to be said, however, for the general practitioner.

Many advances have continued to hold the esteem of the American dentist in the front rank of world dentistry. The routine use of the X-ray has been an important factor. Many technological improvements have occurred. The various types of plastics are finding widespread use in bridge and denture construction

as well as for artificial teeth and fillings. The grenz ray has made it possible to successfully treat certain types of pyorrhoëa as well as other infections of the mouth such as the tubercular ulcer and leukoplakia, which is often found to be a pre-cancerous lesion.

Plastic surgery alone and in combination with prosthetic dentistry has made possible the restoration of jaws, noses, ears, and, in fact, all parts of the head. Dentists have been responsible for the development of plastic artificial eyes, and have done much to assist in the improvement of artificial limbs.

Chemotherapy, the practice of employing drugs in the treatment of disease, has been advanced considerably in recent years. The sulfa drugs and penicillin have had their dramatic effects in the treatment of certain infections in and about the oral cavity. Some of the extensive infections of the head and neck, often resulting from infected teeth, which sometimes terminate fatally, now respond to either drug therapy alone, or more often to the combination of surgery and the drug therapy. Previously, the removal of teeth from patients suffering with certain types of heart disease, often resulted in exacerbating the heart condition and frequently terminated in death. It is said that Theodore Roosevelt, former President of the United States, died as a result of an extraction of an infected tooth. Today, however, with the use of chemotherapy, patients with these afflictions are carried through the periods of extractions or oral surgery with very little fear of systemic disturbance.

Dental research at last is receiving greater recognition. It has been demonstrated that diet plays an important rôle in the prevention of dental decay—a universal disease. More recently, attention has been directed toward the chemicals found in the drinking water, particularly fluorine. It is felt by some that this chemical has a definite retardation or even preventive effect on dental decay, and therefore this substance is being added to the water supplying various communities. In New York State, for example, two large towns are being used as guinea pigs—one town is having certain measured quantities of fluorine added to its water supply, while a near-by town which has practically no fluorine in its water will continue with its present water supply. The children of each town are being carefully studied, dentally, for a ten year period, after which we will probably know whether or not fluorine added to the water will help to prevent dental decay.

Vitamin concentrates, likewise, are found to be definitely useful in reducing the incidence of dental decay as well as to directly influence the conditions of the tissues of the mouth. These and many other dental researches of which space does not permit discussion have added to dentistry's contribution. Though the languages of the Americas are different and the people represent many cultures, they are, however, brothers in intellect, and the researches of a student in one country benefits all.

About ten years ago, the author conceived the idea of establishing an organization whose chief purpose was a closer cultural and professional interchange between the dentists of North, Central and South America, and thus he organized the Pan American Odontological Association. The plan has been to arrange for visiting clinics to the various centers of Latin-America, visiting professorships, and many scholarships. At the present time scholarships are available to graduate dentists of Latin America to study at: New York University in New York City, University of Pennsylvania at Philadelphia, Tufts College Dental School in Boston, Washington University in St. Louis, Medical College of Virginia School of Dentistry in Richmond, Va., and the University of California. In addition certain hospital fellowships have been obtained, and it is hoped that many more

facilities will be made available in the United States to the dentists of Latin America. Perhaps our conferrees in Central and South America will find it possible to invite some of the dentists of the United States to visit their countries. New schools are being built, new methods are being developed in dentistry throughout Latin America and I am sure that the dentist of the United States can not only give but can receive much from our neighbor countries.

Ultimately this must have a beneficent result not only for our conferrees in the respective countries but in helping to establish a good neighbor policy which will really result in the development of good neighbors.

ADVANCES IN MEDICAL PROTOZOOLOGY IN THE AMERICAS

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Because of the microscopic size of protozoa, they remained almost unknown to man until magnifying lenses were used for their study. It was Leeuwenhoek, using very rudimentary lenses which he had made himself, who brought to light the fascinating world of micro-organisms in the latter part of the 17th century. While studying water in a dish he discovered (1676) the free-living protozoa. Soon afterwards he discovered protozoan parasites in the bile of the rabbit, and in 1781 while examining his own feces he found *Giardia lamblia*, the first parasitic protozoon of man known to science.

The study of free protozoa—"animalcules" and "infusoria" as they were soon called—developed rapidly. Scientists were fascinated by their variety and beauty to such an extent that by 1718 Joblot had published in France what Woodruff has named "the first treatise on protozoology." The parasitic protozoa were not thus favored, and although sporadic observations were made during this period, it was not until the second half of the 19th century that investigators became really interested in them. It should not be forgotten that Pasteur's first work, from 1865 to 1870, on germs capable of causing disease in another living being, was really in regard to the sporozoon now known as *Nosema bombycis*, the silk-worm parasite. Pasteur laid the foundations for the control of this plague.

A few years previously, in 1849, a Russian, Gros, had discovered the first human parasitic ameba, *Endamoeba gingivalis*, which inhabits the human mouth, and in 1857 Malmsten, in Sweden, found *Balantidium coli* in the intestine, where it may cause various types of dysentery. Nevertheless, the discovery of parasitic protozoa aroused but little interest. Medical protozoology was still to be born.

In fact, it might be said that the discovery of the dysenteric ameba, by Lösch in Russia in 1875, even though erroneously interpreted, was what actually gave impulse to the study of parasitic protozoa in man. This interest reached its climax, insofar as the intestine is concerned, in 1903 when Schaudinn clearly differentiated and named with their present designations *Endamoeba histolytica*, the cause of amebic dysentery, and *Endamoeba coli*, the harmless commensal of the human intestine. Although now it is known that Schaudinn committed serious errors in this, as in much of his work, his contributions helped to clear the chaos surrounding the knowledge of intestinal amebas and to give impetus to their methodical study.