nized to a fraction of a microsecond by means of an atomic clock. The tapes can then be brought to a central point for playback.

The Canadian team used the 150-foot radio telescope at Algonquin Park in Ontario and the 84-foot telescope of the Dominion Radio Astrophysical Observatory in Penticton, British Columbia, more than 2,000 miles to the west. A Defense Research 60-foot telescope at Shirley Bay, near Ottawa, was also used in the test.

With this equipment the scientists had a 2,000-mile line to determine the diameter of quasar 3C-273-B to less than 0.02 seconds of arc. They found its diameter to be about 100 light years, if the object is 1.5 billion light years away as determined optically, smaller than had been suspected.

The Canadian research team includes scientists from the National Research Council of Canada, the University of Toronto, Queen's University, Kingston, Ont., and members of the Dominion Radio Astrophysical Observatory.

FROM SWITZERLAND

Babel at WHO

Doctors attending World Health Assemblies in the future will have to deal with more languages.

The United Nations' professional agency, as other U.N. bodies, officially recognizes English, French, Russian and Spanish. But in practice, all the tons of working documents at every conference are run only in English and French.

At the 20th annual Assembly in Geneva, after several years of protest, the Russian-speaking and Spanish-speaking doctor-delegates won their case.

The 128-nation organization voted a resolution to "extend the use" of the two languages. It will cost \$600,000 and will be accomplished "in progressive steps over a three-year period."

Many lengthy debates on medical and health questions are already confounded because the French-speaking delegates often question nuances of meanings in French working documents, as the English documents serve actually as the master copies.

Russian and Spanish will start being used in the first part of the next Assembly, then in the rest, and in the Executive Board.

Doctors from Taiwan, naturally, say they would like Chinese to be a working language, and the Arab League continues to fight for Arabic.

An African doctor-minister then says what about Swahili, "mother tongue of millions."

Shift at Commerce

In the nation's capital, there are very few sure things as far as executive appointments go, but one that has been as close to certain as possible for nearly a year is that Dr. Chalmers W. Sherwin will replace Dr. J. Herbert Hollomon as Assistant Secretary of Commerce for Science and Technology.

Dr. Sherwin has been deputy Assistant Secretary since last July. Dr. Hollomon has been both Acting Undersecretary of Commerce and Science and Technology Assistant Secretary since last February. Dr. Hollomon, who aimed the science-oriented agencies within Commerce on an industry-oriented path during his five years, has been named president of the University of Oklahoma as of Sept. 1.

Until July 1966, when he became Dr. Hollomon's deputy, Dr. Sherwin had been director of defense research and engineering for research and technology since 1963, and had previously served as deputy chief scientist for the Air Force.

While at the Department of Defense, Dr. Sherwin suggested in 1964 that DOD investigate the kinds of research on which most of today's defense systems are based. One conclusion drawn by scientists on what came to be called Project Hindsight (SN:12/3/66) was that virtually all of the basic research on which the 20 major weapons systems selected for study were based was at least 20 years old, and much of it had been available for 30 years

Basic science is defined in the Project Hindsight report as "undirected," from which the contributions appear "to have been small." This makes Dr. Sherwin a technology man, but he does not disregard the value of basic research.

Dr. Sherwin's Commerce appointment, generally considered a demotion, was believed at the time to be a prelude to naming him as a replacement for Dr. Hollomon. It was a long wait for both of them. Rumors that Dr. Hollomon was leaving Commerce had been circulating for several years.

Dr. Sherwin will direct the activities of such agencies as the Environmental Science Services Administration, the National Bureau of Standards, the Patent Office and the Office of State Technical Services, under the newly appointed Secretary of Commerce, Alexander B. Trowbridge.

Secretary Trowbridge has made it clear that he plans to make Commerce a Government department serving industry. Dr. Sherwin is expected to follow this same policy, established as far as the science agencies are concerned under Dr. Hollomon.

Dr. Sherwin is reluctant to discuss

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