the Secretary of War's Interim Committee on Atomic Energy, whose findings are in part incorporated in the statement just released, considers the present prospects for utilization of this power.

"We see characteristic limitations," says this report, "and characteristic advantages in atomic power which make us regard it in great measure as a supplement to existing sources, and an incentive to new developments, rather than as a competitor, let us say, to coal or to petroleum products."

Science News Letter, April 6, 1946

GENERAL SCIENCE

International Control

An agency actively working on developments in the field of atomic energy is urged by State Department consultants for peaceful control.

➤ CONTROL OF ATOMIC energy by an international agency actively working on development in the field is the proposal handed the State Department by its board of consultants for peaceful control of man's most fearful weapon.

The 78-page report of the five-man board was released with a foreword from Secretary of State Byrnes stating that it is being made public "not as a statement of policy but solely as a basis for discussion."

The chairman of the board was David E. Lilienthal, chairman of the Tennessee Valley Authority, and it included Chester I. Barnard, president of the New Jersey Bell Telephone Co.; Dr. J. Robert Oppenheimer, University of California and California Institute of Technology scientist who directed work at the Los Alamos, N. Mex., laboratory of the Manhattan District; Dr. Charles Allen Thomas, vice-president of the Monsanto Chemical Co., St. Louis, Mo., and Harry A. Winne, vice-president of the General Electric Co., Schenectady, N. Y.

Pointing to the need for international control of the atomic weapon, the report introduced a new concept of the problem by asserting that "only if the dangerous aspects of atomic energy are taken out of national hands is there any reasonable prospect of devising safeguards against the use of atomic energy for bombs." It explains the difference between safe and dangerous activities with a promise that there are processes for utilizing radioactive materials that cannot be made into bombs.

The State Department's consultants emphasize that the group exercising international control must also assume a responsibility for the development of atomic energy.

"Only if the international agency was engaged in development and operation could it possibly discharge adequately its functions as a safeguarder of the world's future," the report declares.

New advances in technology may be confidently expected, the board said, and "Those in whose hands lies the prevention of atomic warfare must be the first to know and to exploit technical advances in this field."

Explaining that atomic energy cannot be policed out of existence, the group charged, "To 'outlaw' atomic energy in all of its forms and enforce such a prohibition by an army of inspectors roaming the earth would overwhelm the capacity and the endurance of men, and provide no security."

Comparing the enforcers of such a suppression to prohibition agents in the United States, the report urges the control body to be pioneers in a new and creative field. Referring to the unpublished findings of the Secretary of War's Interim Committee on Atomic Energy, the State Department document quoted portions predicting important peacetime uses for the war's mightiest weapon.

With the materials for atomic weapons kept out of national hands we can prevent war use of them, the report said, adding that the international agency must have absolute control over the raw material.

Thus, the board declared, the problem of enforcement is drastically reduced. The technical problems of what use a nation is making of dangerous materials will not enter into the control if the mining of uranium ore or possession of it are illegal, according to the State Department's consultants.

Summing up their case for international control of atomic energy, the board said, "We conclude that the international development and operation of potentially and intrinsically dangerous activities in connection with atomic energy would bring the task of security within manageable proportions because of the elimination of the hazards of rivalry between nations."

Individual nations and their citizens would be licensed to carry on all safe operations with a minimum of inspection, according to the plan.

First function of the proposed agency would be to bring under its control all supplies of uranium and thorium and set up continuous surveys to locate new sources.

Plants such as those at Oak Ridge, Tenn., and Hanford, Wash., might be established to produce useful types of atomic reactors to further the peaceful development of atomic power. Research activities are contemplated to increase knowledge of atomic energy and extend its safe uses.

All dangerous products would be under the agency's strict control, but "denatured" materials could be leased to nations or individuals for safe uses.

"When the plan is in full operation there will no longer be secrets about atomic energy," the board said.

"We believe that this is the firmest basis of security," the group declared. "In the long term there can be no international control and no international cooperation which does not presuppose an international community of knowledge," they concluded.

Science News Letter, April 6, 1946

MEDICINE

Penicillin Is Better Than Streptomycin for Syphilis

➤ PENICILLLIN is better medicine for syphilis than its sister-antibiotic, streptomycin, it appears from studies of rabbit syphilis reported by Dr. Wolcott B. Dunham and Dr. Geoffrey Rake, of the Squibb Institute for Medical Research. (*Science,* March 22.)

Streptomycin did cure some of the rabbits of their syphilis, but comparison of the dosage needed with the dose of penicillin that would cure syphilis led the scientists to conclude that "penicillin G is more than 3,000 times as effective" as streptomycin.

Treatment of four cases of syphilis in humans, reported by Dr. W. E. Herrell and Dr. D. R. Nichols of the Mayo Clinic, and referred to by the Squibb scientists, seems to bear out the results of the rabbit studies. The human patients improved but relapses occurred even when 10,000,000 units of streptomycin had been given over a period of 10 days.

Science News Letter, April 6, 1946

Sound travels more than four times as fast through water as through air.