

GENERAL SCIENCE

Strong UN Key to Survival

A world police force under the United Nations, composed of men of all nations, urged as an alternative to the mass killings from a possible nuclear war.

► SURVIVAL IN the atomic-hydrogen age requires strengthening the United Nations with a "police force composed of men of all nations" to enforce its decisions, Rep. Chet Holifield (D-Calif.), a member of the Joint Committee on Atomic Energy, has urged.

Alternatives must be found for the "mass killings" and "mutual destruction" that would result from a nuclear war, he told a meeting of the Federation of American Scientists in Washington. Atomic energy must become a "symbol of peaceful endeavor and hope" for a better life for oppressed millions, Congressman Holifield urged, not one of "death and destruction."

One of four speakers discussing "Nuclear Radiation Hazards and Their Political Implications," he said that no matter how "difficult the task and discouraging the setbacks," the U. S. must strive through the UN to achieve world peace.

Dr. John S. Toll, University of Maryland physicist, described the physical effects of radiation. The biological effects were reported by Prof. H. Bentley Glass, geneticist at Johns Hopkins University, Baltimore, Md. Sen. Clinton Anderson (D-N. M.), also a member of the Joint Congressional Committee on Atomic Energy, was the fourth speaker.

U. S. defenses, Dr. Toll said, are often "for last year's weapons rather than tomorrow's" because Atomic Energy Commission statements concern weapons already tested, avoiding prophecy.

Fall-out danger, great as it is from hydrogen bombs that can vaporize an entire city and paralyze a state, might be increased by designing weapons, such as the cobalt bomb, to increase radiation hazards, Dr. Toll said. This weapon would not have to be delivered but could be exploded within the "home" country to spread deadly radioactivity around the world.

"Desperate losers in a future atomic war, or a group with a Nazi-like belief in their role as a super race, might explode such a radiological weapon after they had prepared and stocked appropriate under-ground shelters for themselves," Dr. Toll said. He pointed out that it is easier and cheaper to make a cobalt bomb now than when such a bomb was first suggested in 1950.

The modern equivalent of the "scarlet letter" is the "label of security risk," a brand that can never be removed, Dr. M. Stanley Livingston, physics professor at Massachusetts Institute of Technology and chairman of the Federation's meeting, pointed out in his introduction of the speakers.

The recent news blackout by the Defense Department was an added difficulty in finding any physicist to discuss political impli-

cations of radiation hazards, Dr. Livingston said.

After being turned down by scientists working directly for or under contracts to the AEC, Dr. Livingston noted, two physicists employed by the Defense Department agreed to appear, then later withdrew when Secretary of Defense Charles Wilson imposed restrictions on public statements by its employees.

The dilemma created by present security restrictions, Dr. Livingston said, is that "those who know will not speak and those who do not know, cannot speak with authority."

"Finally, in desperation and open rebellion against these pressures," Dr. Livingston said, "Dr. Toll and I agreed to stick our necks out and appear on the program." Both are members of the Federation of American Scientists, a nation-wide organization of scientists interested in the interrelation of science and government.

Science News Letter, May 14, 1955

MEDICINE

Dentist Should Watch Cleft Palate Infants

► CHILDREN MUST start going to the dentist at the age of six months, if they have the misfortune to be born with a cleft palate, Dr. George Warren Pierce of San Francisco declared at the meeting of the American Association of Plastic Surgeons in Washington.

Those with this common birth deformity usually have teeth that do not meet for a proper bite and have a distorted dental arch. If treatment of these deformities is started at the age of three or four, a better result can be obtained, Dr. Pierce said.

But the dentist should see the child while he is still an infant and then every six months until treatment is started.

If the baby teeth decay, they must be filled promptly. Loss of decaying baby teeth is disastrous for these youngsters. The baby teeth must be in the mouth for successful treatment of the malformed dental arch.

Babies with such unsightly facial blemishes as hairy moles, blood tumors and harelips can be operated on safely when they are a week old, provided local anesthesia is used, Dr. Richard E. Straith of the Straith Memorial Hospital, Detroit, declared.

Operations to correct such defects can be done at this early age, before the new baby is taken home from the hospital, if it weighs at least six pounds, is eating well and is otherwise normal.

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• RADIO

Saturday, May 21, 1955, 5:00-5:15 p.m. EDT
 "Adventures in Science" with Watson Davis, director of Science Service, over the CBS Radio Network. Check your local CBS station.
 A. Wiener, head of Israel's Irrigation Projects, will discuss "Irrigation for More Food."

CHEMISTRY

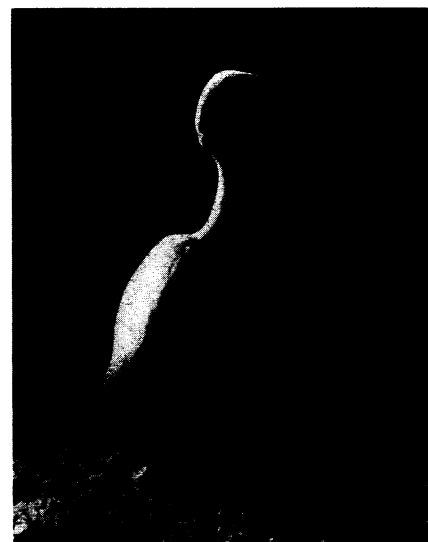
Life Chemicals Built From Vinegar Acid

► SOME OF the most complex life chemicals, nucleic acids and steroid compounds, have been built up in the laboratory from simple acetic acid, which puts the bite in vinegar, by two research scientists, Drs. Samuel Gurin and D. Wright Wilson of the University of Pennsylvania.

This is a further step toward understanding how life processes work. Dr. Wilson has synthesized nucleic acids, fundamental sources of protein, from simple acetic compounds by way of the nitrogen-containing compound uracil. Dr. Gurin has produced cholesterol, the steroid compound occurring in fat, through the intermediate compound squalene. Radioactive tracers allow the scientists to follow the steps by which protein and cholesterol are built up in their experiments.

Chemicals extracted from liver tissue by the Pennsylvania scientists, as a clear solution containing no living cells, are able to build simple acetic acid compounds, whose atoms are strung together in straight chains, into complicated life chemicals characterized by structures which are networks of molecular rings.

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AMERICAN EGRET — Feeding on fish it snatches from shallow water, this slim, graceful bird breeds in southern United States, Central and South America. The male's long plumes were once fashionable decorations for ladies' hats.