



NEW PANAMA TOWING MACHINE—To speed passage of ships through the Panama Canal, a new type of towing machine is being built by R. G. LeTourneau, Inc., Longview, Texas. Working in pairs, the units will reach out and pull a ship over to the canal wall, then bug it securely against a fender of rubber tires as both the machines and ship proceed through the lock, as shown in the photograph.

GENERAL SCIENCE

Stopping H-Bomb Tests

► **STOPPING TESTS** of hydrogen bombs could show for the first time in history that the “requirements of humanity as a whole” overrode the immediate needs of the people in a powerful nation.

Thus argues Dr. Eugene Rabinowitch in the *Bulletin of the Atomic Scientists* (Nov.), of which he is editor. The University of Illinois physical chemist also urges that the United States should halt thermonuclear bomb testing only as a starting point for a change in foreign policy.

Reviewing the current controversy over the proposals to ban H-bomb tests, Dr. Rabinowitch points out that the difficulty of atomic disarmament is much deeper and harder to overcome than is usually realized.

This is because of “the contrast between the power for destruction science has given to man and the organization of mankind into sovereign states.”

All countries believe in the supreme importance of their national existence, and lack sufficient concern for mankind as a whole, Dr. Rabinowitch charges. From this viewpoint, stopping H-bomb tests cannot give substantial progress toward controlled disarmament.

It could, however, “become an important beginning in the reorientation of American foreign policy” toward disarmament if the Government were willing to carry the reasons for the change to the American people.

Dr. Rabinowitch suggests the way to find out whether a test renunciation will bring about the “hoped-for start toward controlled disarmament” is to put a time limit of a

year or two on the ban period. This time could then be extended if “clear progress” were achieved.

Practically all scientists, he points out, agree that no nation can keep test explosions of large nuclear weapons secret from other nations. They also agree that the danger of radioactive fallout to the health of the present population and the heredity of future generations, although real, is not yet “alarming,” but could become so.

Science News Letter, November 17, 1956

NUTRITION

Hidden Hunger Danger In Too Many Calories

► **DANGER OF HIDDEN HUNGER** as well as overweight exists in our national liking for high calorie foods, the U. S. Department of Agriculture warns on the basis of diet studies in California, Iowa, Michigan, Missouri, Nebraska, South Dakota and Wisconsin.

The danger is that people eat so much of the high-calorie foods, such as fats and desserts, that they do not have room or desire to eat enough protective foods, such as fruits and vegetables that supply needed vitamins and minerals.

Calcium and vitamin C were the items particularly short in most of the diets studied.

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BIOCHEMISTRY

See Hormone Role In Heart Failure

► **WHEN BODY TISSUES** get “waterlogged” in patients with congestive heart failure, at least part of the trouble seems to be overproduction of a hormone by the adrenal glands, studies by scientists at the National Heart Institute, Bethesda, Md., show.

The adrenal glands are famous as the source of anti-arthritis cortisone and adrenalin. They also produce a hormone called aldosterone that functions in the normal regulation of fluids and salts in the body. Excess quantities of it have been found previously in patients with the waterlogged condition called edema.

Whether the excess was due to overproduction of the hormone or failure of the body to destroy it was not known.

The scientists collected blood directly from the veins draining the adrenal glands of three normal dogs and five with circulation disorders that had resulted in edema.

Aldosterone appeared in the adrenal blood from dogs with circulation disorders at over five times the rate it appeared in adrenal blood of the normal dogs. This leads the scientists to conclude that overproduction of the hormone is responsible for the excess in congestive heart failure.

Scientists who made the findings are Drs. Wilmot C. Ball Jr., James O. Davis, Maurice M. Pechet and M. Jay Goodkind.

Science News Letter, November 17, 1956

BIOCHEMISTRY

See Strep. Enzyme Good For Dissolving Blood Clots

► **AN ENZYME** from some streptococcus germs may prove useful for safely dissolving clots in the human blood stream. It would then help patients recover from coronary thrombosis and strokes.

“Some beneficial results” from such use of the germ enzyme chemical in treatment of 23 human patients were reported by Dr. Sol Sherry of Jewish Hospital, St. Louis, at a conference at the New York Academy of Sciences. The chemical, streptokinase, was infused into the patients’ veins.

Much work needs to be done before significant conclusions can be drawn, Dr. Sherry said. He reported some undesired side effects, such as fever.

Some of the favorable results, he said, may have been due to natural repair by the body. Streptokinase is known to have an anti-inflammation property. It may be that it was this rather than a direct effect on blood clots that caused the benefit to the patients.

Earlier study of the enzyme was made in the test tube and in animals. Streptokinase dissolved clots in 13 of 26 animals, compared to 10% disappearance of clots in animals not treated and nine percent in animals given another enzyme.

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