

substance of all proteins, whether they occur in meat, enzymes, viruses or antibodies. This mother substance he has named proteinogen.

The other half of the prize in chemistry goes to Dr. Sumner, who was the first scientist ever to crystallize an enzyme. He prepared crystalline urease

in 1926. This enzyme is important in the nitrogen cycle in nature. Eleven years later, in 1937, he crystallized the important enzyme, catalase, which protects living cells against the hydrogen peroxide they form in their own respiratory processes.

*Science News Letter, November 23, 1946*

## CHEMISTRY

## Iodine Purifies GI Water

Disinfectant tablet contains iodine, which makes water in GI canteens taste better than that with a chlorine disinfectant.

► WATER FROM GI canteens in the future will be safer and taste better, thanks to a new disinfectant tablet which uses iodine instead of chlorine to purify the water.

Chlorine and chlorine compounds, stand-bys in water disinfection for almost 40 years, as ordinarily used cannot be counted on to protect troops in the field from amebic dysentery or schistosomiasis. The parasites of these diseases when in the cyst stage are too resistant to disinfection by such means. It would take at least six standard Halazone tablets, for example, to disinfect a canteen of warm water in 36 minutes. After this treatment, the soldier probably would not drink the water because of the unpleasant taste. Even with strict supervision, it was sometimes difficult to keep soldiers from drinking water from streams or wells of doubtful purity, rather than use the chlorine-disinfected water.

Search for more satisfactory canteen disinfectants was led during the war by Dr. Gordon M. Fair of Harvard under OSRD contracts. Quarternary ammonium compounds and triiodides were investigated. One of the latter, triglycine hydroperiodide, was finally selected by the Quartermaster Corps as having the highest military characteristics.

Tablets of this dissolve quickly, liberate seven and one-half parts per million of elemental iodine, enough to kill quickly the cysts of amebic dysentery germs and to reduce the number of typhoid, cholera and bacillary dysentery germs from about one hundred million to five or less per 100 cubic centimeters (about three ounces) of water.

Soldiers and Marines who tried the tablets did not object to the taste or odor of the water. Additional tests of the new "tablet, water purification, individual,

iodine," will be carried out during the coming year.

*Science News Letter, November 23, 1946*

## CHEMISTRY

## Soviet Chemists Join World Chemistry Union

► SOVIET CHEMISTS have pledged themselves to participate in a post-war revival of the International Union of Chemistry when representatives of 21 nations gather in London next July.

Despite lack of Soviet participation in such United Nations sponsored organizations as UNESCO, Dr. Alexander Nesmeyanov has been elected vice-president of the international union upon nomination of the Moscow Academy of Sciences. He takes the place of a German dropped because Germany, with Japan, is now barred from the world chemical organization.

Dr. Marston Bogert of Columbia University, as president of the union, has received assurances from other Soviet scientists that they will aid in re-establishing the world organization of chemists.

Difficulty in locating some officials of the union who disappeared in various countries during the war is hampering the plans for reconstituting this world organization which last met in Rome in 1938.

*Science News Letter, November 23, 1946*

Some scientists believe that *bees* work in the dark to keep the honey soft, as it crystallizes in the light.

The *coyote* eats almost four times as many rabbits and other rodents as it does domestic animals.

## ENGINEERING

## Silica Particles Used As Modifiers in Cement

► SILICA PARTICLES almost too small to be seen under a microscope, which are formed as a byproduct in metallurgical operations, can be used as modifying agents in cement, James W. Sharp of Los Altos, Calif., has discovered. He has assigned rights in his patent, No. 2,410,954, to the Permanente Cement Company, one of Henry Kaiser's firms.

*Science News Letter, November 23, 1946*

Alaskan coastal forests contain spruce trees up to five feet in diameter and over 150 feet high.

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