



HITCHING A FREE RIDE—Dr. A. J. Sharp of the University of Tennessee points out a "piggy-back" plant, one of many he has found growing in the Great Smokies. This is a rhododendron that has rooted and is doing well on the trunk of a yellow birch tree.

MEDICINE

134-Year-Old Acne Lotion Stabilized

➤ AN OLD-NEW medicine for acne was shown to members of the Association of Military Surgeons of the United States meeting in Washington.

It is a powdered form of white lotion, or lotio alba. This sulfurated potash and zinc sulfate combination has been used in acne treatment for 134 years. But for just about all that time, doctors have complained that the lotion was unstable, began to deteriorate in 48 hours and by the end of two weeks storage was not much more than plain water.

E. Fougera and Company of New York thinks it has overcome that objection by putting the material up in the form of a powder which the patient makes into a solution each time he uses it. The powder is supplied in small packages. One package is mixed with one tablespoonful of water and applied to the pimples with a bit of cotton.

A new product to relieve stuffy noses was also shown to the military surgeons. It is tetrahydrozoline hydrochloride, just put on the market by Chas. Pfizer and Co., New York, under the trade name, Tyzine. This new kind of nose drops is said to have the advantage of being without rebound action, meaning that it will not make the free-breathing nose all stuffy again and needing more drops within an interval of a few hours.

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GENERAL SCIENCE

Attack Chemistry Nobelist

➤ THE RUSSIANS are attempting to deify a 19th century Russian chemist, Dr. A. M. Butlerov, as the father of world organic chemistry in much the same manner as they idolatrized T. D. Lysenko as the father of biology.

An interesting by-product of this deification is the fact that to credit Dr. Butlerov, the Russians have decided to discredit an American chemist, Dr. Linus Pauling, 1954 winner of the Nobel prize for chemistry. (See SNL, Dec. 4, p. 357.)

In a report to the American Chemical Society's *Journal of Chemical Education* (Oct.), Dr. I. Moyer Hunsberger of Antioch College, Yellow Springs, Ohio, stated that the Russian criticisms of Dr. Pauling's work and the elevation of Dr. Butlerov are an "extremely obvious exaggeration of Butlerov's contributions to organic chemistry."

The Ohio chemist also reports that the great majority of Russian papers extolling the work of Dr. Butlerov and other Russians in the field of organic chemistry inevitably include "torrents of invective" against Western science in general and Dr. Pauling in particular.

Dr. Pauling has been singled out by the Soviets because his work is related to that of Dr. Butlerov.

The Russians believe Dr. Pauling has contributed theories to organic chemistry that

directly oppose Communistic philosophy, and are therefore "an example of world outlooks hostile to the Marxist view."

It is ironic that, although the Soviet authorities are inveighing against Pauling for "unhealthy influences of corrupt bourgeois philosophy and science," the U. S. State Department last year denied him a passport validation on the unexplained grounds that a trip to India "would not be in the best interests of the United States."

Having received the Nobel Prize in chemistry on Dec. 10, Dr. Pauling is embarking on a trip around the world. The Nobel award, the most highly coveted recognition of scientific achievement, is usually considered a mark of honor for the nation whose citizen has won the distinction, as well as for the man himself.

The theory of resonance, one of the contributions to theoretical chemistry for which Dr. Pauling was awarded the prize, reconciles two opposing ideas about the likelihood of chemical combination. It explains the structure known to organic chemists as the "benzene ring" in a way more harmonious with known electronic behavior than the conventional picture of six carbon atoms joined alternately by single and double lines supposed to represent the combining forces of the carbon atoms.

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ENGINEERING

Radioactive Wastes

➤ PRESENT METHODS of disposing of radioactive wastes are safe, but in many cases extremely expensive.

This problem will grow and may well be a stumbling block to the commercial use of atomic energy, Drs. Abel Wolman, consultant, and Arthur E. Gorman, sanitary engineer for the Atomic Energy Commission, told the American Society of Mechanical Engineers meeting in New York.

"Hot ashes" are particularly dangerous, they said, because man cannot sense them without special instruments. Small doses can be very dangerous and sometimes fatal.

Presently, wastes from atomic plants are sealed in cement blocks and dumped in the ocean, or sent up tall chimneys, or stored in underground tanks, or sometimes cooled off in storage yards. Underground disposal costs up to \$1.75 a gallon, dumping in the ocean costs up to \$1 a pound, and dispersal in the air costs up to \$5 a cubic foot.

Scientists are now working on the application of cheaper methods of getting rid of the wastes. One possibility which has not been completely studied is dumping the radioactive residue into deep deserted oil wells or mines.

Another scheme receiving serious study is a method of absorbing the wastes into

clay pellets. The pellets are then glazed in a furnace so that the products cannot seep out. These beads perhaps can be safely buried.

By the turn of the century, the scientists estimated, there would be three tons of radioactive waste a day requiring one-twentieth of the world's oceans for safe dilution.

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PHYSICS

New Type High Voltage Machine Is Constructed

➤ A NEW kind of high voltage machine, a modified Van de Graaff generator, has been made. Instead of carrying electrostatic charges on its moving belt, it carries charged condensers that are automatically connected in series as they reach the top of the machine, increasing current output and voltage.

The device is described in *Nature* (Dec. 4) by R. E. D. Clark of the Cambridgeshire Technical College and F. T. Farmer of the Royal Victoria Infirmary, Newcastle upon Tyne.

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