PHARMACY

Detect Carbon Monoxide In Very Low Concentration

Dilute Mixture of Blood and Pyrotannic Acid Used As Reagent; Pectin Used as Ulcer Treatment

A METHOD for detecting the presence of carbon monoxide in very minute quantities, as an impurity in oxygen intended for human inhalation, was described before the meeting of the American Pharmaceutical Association in Atlanta, by Drs. Frederick K. Bell and John C. Krantz, Jr., of the University of Maryland School of Medicine.

Oxygen is supplied compressed in cylinders for use by pneumonia patients and other critically sick persons, aviators at high altitudes, firemen, mine rescue workers, etc. The presence of even small quantities of poisonous carbon monoxide would of course be extremely dangerous, particularly in hospital use.

The test is made with a reagent consisting of a dilute mixture of blood and pyrotannic acid. This is gray-brown in the presence of uncontaminated oxygen, but turns pinkish when it comes into contact with carbon monoxide in mixtures even as dilute as five parts per million.

Science News Letter, September 2, 1939

Old-Fashioned Remedy Good

EXPERIMENTS with an old-fashioned remedy which has long been discarded as of no particular value showed it to be capable of relaxing cramps in certain of the body organs, it was brought out in a report by Dean A. Richard Bliss, of Howard College School of Pharmacy, Birmingham, Ala.

The drug is *Potentilla anserina*. It grows as a common weed everywhere, but Dr. Bliss had to send to Germany to get it in prepared drug form. Experiments on animals brought out its almost-forgotten value.

Science News Letter, September 2, 1939

Pectin Used for Ulcers

PECTIN, the stuff that makes jelly "jell," is the base of a new type of medicated paste that is having great success in the healing of bed sores and stubborn ulcers, Dr. Bernard Fantus and H. A. Dyniewicz of the University of Illinois Medical College told the meeting.

Advantages claimed for the new paste are that it gives the healing tissue a more nearly natural medium in which to grow, that it needs to be changed less often than the dressings now used, and that its cost is much lower.

To the base, which may be either pectin or gum tragacanth, Dr. Fantus and Mr. Dyniewicz add Ringer's solution, which is a synthetic approximation of the inorganic parts of the blood fluid. The paste is applied thickly, covered with a piece of waterproof transparent cellulose sheeting, and the dressing fastened down with adhesive tape.

Different medicaments may be added for specific types of ulcers: sulfanilamide for streptococci, ethyl aminobenzoate for painful ulcers, urea when necrotic tissue is present, etc.

Science News Letter, September 2, 1939

Remedy for Athlete's Foot

VALUE of sodium hypochlorite solutions for treating athlete's foot was emphasized at the meeting of the American Pharmaceutical Association, by Drs. J. B. Vaughan and H. George DeKay, who reported the results of experiments carried on at Purdue University.

Solutions of the chemical as weak as one-tenth of one per cent in available chlorine were found capable of inhibiting the growth of the fungus that causes athlete's foot, when permitted only 20 seconds contact.

Science News Letter, September 2, 1939

BOTANY

Growth Hormone Makes Pollen Germinate Quickly

POLLEN grains were made to germinate more quickly and surely, and to grow their fertilizing tubes longer and more rapidly by treatment with a growth hormone, in experiments conducted by Dr. Paul F. Smith of the University of Oklahoma. Results may be of considerable practical importance in plant breeding, greenhouse horticulture and other plant sciences and industries where pollen is collected and applied by hand. (*Science*, Aug. 18)

To fertilize a flower and start the development of seed, pollen grains must germinate and produce a long tube, that grows down through the tissues of the flower's pistil, carrying the fertilizing nucleus. Some pollen grains are slow about this.

Treatment with indole-3-acetic acid, standard growth-promoting substance, cut germinating times in half, greatly increased percentage of germination, and in some cases doubled the length of the pollen tubes, of the five species treated. In the most extreme case, that of Austrian pine, the untreated pollen did not germinate at all, while treated pollen showed 51% germination in six hours.

Science News Letter, September 2, 1939