

CHEMISTRY

New Washable Paint

This odorless paint is made up of water and synthetic rubber. The water evaporates leaving a thin sheet of rubber clinging to the wall which sheds dirt easily when washed.

➤ A NEW kind of odorless paint made of water and synthetic rubber looks like milk and spreads on walls like butter. It protects cement and plaster better than ordinary oil paints.

The American Chemical Society meeting in Atlantic City, N. J., heard L. L. Ryden, N. G. Britt and R. D. Visger of Dow Chemical Company, Midland, Mich., predict that this washable rubbery film will be used to coat interior and exterior walls of future houses.

The rubber used in the new paint is an emulsion of butadiene-styrene rubber such as used in auto tires. Countless millions of submicroscopic balls of the rubber are whipped up in the water. When the coat of paint dries by simple evaporation of the water, the rubber balls join in a thin sheet that clings firmly to the wall but lets the dirt slide off it when washed.

Ordinary water-base paints now in use either can't be washed safely or don't get clean when washed.

The new paint can be applied to fresh cement and plaster as soon as they are dry to the touch. Pigments can be added satisfactorily to the new paint, although there are no turpentine, solvents, and oils to cause odors. The rubber paint would be sold in cans ready to apply like other paint and it is more easily manufactured than many other types.

A plastic by-product of the atomic bomb that cannot be dissolved by any known acid, caustic or other solvent was reported to the chemists by a research group from the Oak Ridge atomic energy laboratories. It is known as Fluorothene and it is a war-born fluorine plastic, chemically polychlorotrifluoroethylene. It is being used especially for filters handling highly corrosive and radioactive materials in the atomic energy program.

Pectin from Sugar Beet

What is left over after the sugar is extracted from the sugar beet is now being used to produce pectin, the substance used to jell puddings, jams, cosmetics and drugs, Prof. P. T. Miller of the University of Wyoming reported. One ton of beets processed for sugar can yield 20 pounds of pectin, which is now obtained chiefly from citrus fruits.

Vitamin B-2 in Bread

Commercial production of riboflavin or vitamin B-2, added to bread because most diets lack it in sufficient quantity, is possible by a new fermentation process reported by chemists of the Department of Agriculture's Northern Regional Research Laboratory, Peoria, Ill. A yeast-like organism called *Ashbya gossypii* is the microscopic chemist that does this job.

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BIOCHEMISTRY

Proteins Differ in Sexes

➤ DARLING, you are growing old. By your amino acids, that is told. And what is more to the chemical point, a woman as she grows older has different amino acid content (protein, in more familiar language) than a man.

This difference between the sexes, explained to the American Chemical Society in Atlantic City, N. J., by a group headed by Dr. Philip G. Ackerman of Washington University School of Medicine, St. Louis, promises to help understand and perhaps treat some of the degenerative diseases in the aged—heart disease, arthritis, etc.

The concentrations of eight of the more essential amino acids, into which protein food is broken down in the human body, were measured in the blood plasma of

young and old individuals. In the case of six out of the eight chemicals, the change with age was different in the two sexes.

Although the amino acid pattern has not been related as yet to actual prevalence of disease, it is known that heart disease is more common among men and arthritis is more common among women. This suggests that the degenerative changes of aging may run a somewhat different course in men than in women.

Earlier studies by Dr. Ackerman and his colleagues, Lilli Hofstatter and William B. Kountz, showed that old people have a great need for protein foods, such as meat, eggs and milk. The general belief earlier was that old individuals did not require large amounts of protein, the food that goes to repair and build up muscle

tissue, because they are less active and use their muscles less.

"When placed on a very high protein diet a number of our elderly patients showed marked clinical improvement," Dr. Ackerman told the chemists. "They felt better and became more active."

Clue to Cancer Condition

A chemical clue to a cancerous condition of the white blood cells, called myelocytic leukemia, was reported by Drs. Albert A. Dietz and Bernhard Steinberg of the Toledo Hospital Institute of Medical Research. Bone marrow in such cases was found to have an abnormal amount of inorganic sulfate.

Test for Alcohol

An improved method of detecting and measuring the amount of alcohol in the body of those charged with drunken driving was reported by John W. Sease, William H. Harris and Sigmund Jaffe of Wesleyan University, Middletown, Conn. Beverage type of alcohol is converted into gaseous ethyl nitrite which is measured by a color test, while other alcohols do not interfere with the test.

Rutin from Asparagus

Asparagus is a new raw material for producing a compound called rutin that is one of the few hopes of restoring weakened blood capillaries from the effects of radiation from the atomic bomb. A. E. Stevenson of Continental Can Co., Chicago, reported that asparagus too mature for marketing as food has enough rutin content to be a practical source of the chemical, now obtained from buckwheat.

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INVENTION

New Line-Marker Sticks Aid Night Football Games

➤ QUARTERBACKS at night football games will know from a quick sidewise glance what yardage they still have to gain and hence what plays they had better call, if the line-marker sticks invented by Walter J. Fritts of Mount Sterling, Ky., come into general use. For instead of blending dully with a confused background, as even white-painted sticks are apt to do, these new ones will shine like little pillars of fire.

In the Fritts invention, the sticks are made either of slotted aluminum tubing or of transparent plastic. At top and bottom are built-in flashlights, each with its own set of batteries. One set of batteries, the inventor reckons, should last through an ordinary game.

Mr. Fritts has just been granted U. S. patent 2,479,157.

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