

New Machines And Gadgets

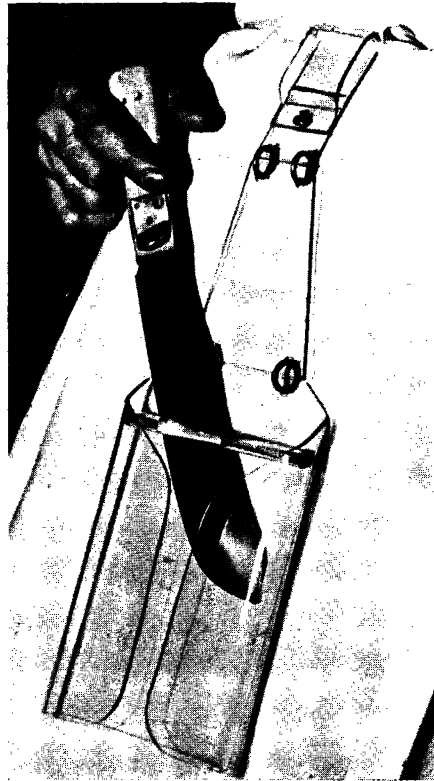
Novel Things for Wartime Living

Concrete highways are made more durable by mixing with the cement during the process of its manufacture small quantities (0.03 to 0.05%) of a dark-colored resin that is obtained from the wood of the southern longleaf pine. The resin is used in flake or pulverized form. The addition of this resin to the cement makes the highway less subject to "scaling" under the action of alternate freezing and thawing.

Soft ice, or at least softer than the usual variety in the sense of being less brittle, can be made by the simple expedient of bubbling a little carbon dioxide (soda water gas) through the liquid before freezing it. Ice manufacturers have been restricted in their output by the fact that if too low a temperature is used the ice is brittle and is likely to crack during the freezing process. The cracked cakes must be thrown away. One company, by using carbon dioxide, was able to lower the temperature 5 degrees and increase its output 30%.

Paint made from corn has been recommended for camouflage purposes. It is made in the form of a dry powder and can be transported in this state. To prepare for use it is mixed with pigment of the desired color, water and a little ammonia.

A break in an electrical circuit may be instantly indicated by a small neon light which goes on when the current goes off. The stoppage may be due to a broken wire, a blown fuse, a switch or a circuit breaker that has opened, or any other cause. Where there are many circuits, the device indicates at once which one is at fault. It has been widely used in railway signaling and in aircraft equipment. It is useful in connection with remote control to show whether distant motors are on or off.



Transparent plastic replaces aluminum as a knife sheath for packing house workers. Aluminum had previously been used because of its lightness, but the plastic is still lighter and is not breakable. Moreover the sheaths are made from scrap remaining from construction of airplane turrets and wind-dows.

If you want more information on the new things described here, send a three-cent stamp to *Science News Letter*, 1719 N St., N. W., Washington, D. C., and ask for *Gadget Bulletin* 108.

Science News Letter, June 13, 1942

More American children suffer from *dental decay* than from any other one disease, except the common cold, according to the American Dental Association.

Gasoline evaporates from your car when it is left in the sun.



SCIENCE CLUBS OF AMERICA

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NEWS OF CLUBS

PITTSBURGH, Pa.—A most outstanding and original radio program was featured recently on station KDKA. The stars in this broadcast were five high school Science Club members; each selected as a champion of a previously broadcast "Junior Science Experts" feature. The program emanated from the Buhl Planetarium where the Junior Experts answered questions of a scientific nature which were submitted by educators, engineers, newspapermen and other scientists.

"The surprising feature of these programs," said Dr. Fitz-Hugh Marshall, curator of exhibits at the Planetarium, "has been the wide knowledge of all of the sciences which these youngsters have. They are good in all fields of science."

Starring on the broadcast were Donald Rose of Schenley High School; Leonard Lerman of Taylor Allderice High; William Vaughan of Oliver High; James F. Kennedy, Jr., of St. Mary of the Mount High and Joseph Konrad of Central Catholic High.

"The Junior Science Experts program," says the Pittsburgh Press, "is a tribute to more than 100 boys and girls of the Pittsburgh region who are now showing science exhibits and demonstrations in the Junior Science Fair."

This Fair was sponsored by the Pennsylvania Academy of Science, the Press and the Buhl Planetarium. The Science Center is directed by John J. Grove of the Buhl Planetarium.

ROCHESTER, N. Y.—About 100 exhibits were displayed at the Third Annual Science and Engineering Fair of the Rochester Science Center. These exhibits were set up in the Rundel Building which houses the Rochester Public Library.

Those who have never visited a Science Fair will be interested in this brief report by Paul E. Smith, assistant in science, Rochester Public Schools.

"As you entered Rundel your attention was immediately caught by two kayaks (Eskimo boats) so large they were placed in the large reading room. Taking the elevator to the third floor where most of the exhibits were displayed you stepped out and almost into a home-made Link pilot trainer which went through all the motions of a real airplane. In the corridor was a model rayon manufacturing plant which actually produced rayon. On the platform in the auditorium was an automobile made out of everything except auto parts—and it ran. A girls' science club exhibited a display illustrating the manufacture of synthetic rubber. Another exhibit showed the working of a magnesium thermite bomb. For those visitors interested in first aid, there was a collection of dolls, each bandaged in miniature according to correct Red Cross procedure. There was a model water purifying system, an apparatus for a new method of manufacture of nitric acid, a complete exhibit showing inheritance in fruit flies, and another demonstrating the embryology of the chick. The boy who entered the inheritance exhibit knew he wouldn't be present when the judges inspected the Fair, so he provided a photograph and a record of his own explanation which was played for the judges."

Clubs are invited to become affiliated with SCA for a nominal \$2 for 20 members or less. You can become an associate of SCA for 25 cents. Address: Science Clubs of America, 1719 N St., N.W., Washington, D. C.

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