New Machines And Gadgets

Novel Things for Wartime Living

A new liquid plastic can be applied like paint to steel, wood, concrete and other surfaces and dries to a tough, impermeable, electrically insulating film that is resistant to acids and alkalies.

To replace flexible copper tubing, a new tubing is being made of soft annealed steel, coated inside and out with copper. Even the Army and Navy are using this tubing for fuel and oil lines and other purposes on tanks, jeeps, trucks, ambulances and motorcycles and wherever else solid copper tubing is not entirely essential.

Blackout ventilators are becoming essential equipment for air-raid shelters, for workrooms and factories where work must go on during a blackout with all doors and windows tightly sealed. A blackout ventilator is one so constructed that, while allowing free passage for air, it permits no light to leak out.

An electron microscope for the examination of opaque objects has just been patented. Hitherto, only transparent objects could be used because the electrons had to pass through the specimen to a fluorescent screen beyond. In the new instrument, the electrons just graze the surface of the specimen and are reflected from it at a very small angle and pass on to a fluorescent screen.

Black-enameled conduit for the protection of electric wires can in many instances be substituted for the more usual zinc-coated conduit, with consequent savings of thousands of pounds of zinc for vital war purposes. Experience has shown that this conduit, enameled on the inside, affords sufficient protection except when corrosive conditions are extreme.

● RADIO

Saturday, June 27, 1:30 p.m., EWT

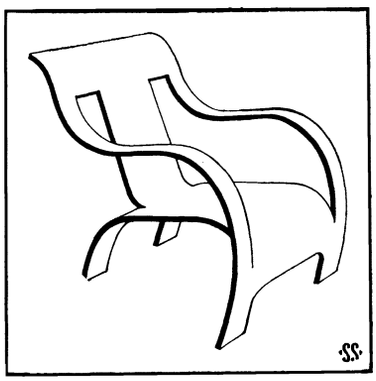
"Adventures in Science," with Watson Davis, director of Science Service, over Columbia Broadcasting System.

Dr. J. P. Leake, of the U. S. Public Health Service, will discuss public health and infectious disease, particularly the one most prevalent during June.

Tuesday, June 23, 7:30 p.m. EWT

Science Clubs of America programs over WRUL, Boston, on 6.04, 9.70 and 11.73 megacycles.

One in a series of regular periods over this short wave station to serve science clubs, particularly in the high schools, throughout the Americas. Have your science group listen in at this time.



From Scandinavia comes this unique chair design shown in the illustration. It is made from a single sheet of plywood cut out and bent as shown. The only waste is the inverted U-shaped piece cut out to form the front legs. The bending is done by pressure and heat while the glue, usually a phenolic resin, is soft. After cooling, the shape is rigidly held.

A photoelectric "light watchman," for automatically switching off neon signs, show window lights, etc., the moment the street lights are extinguished for a blackout, is now available in a compact self-contained form easily installed. Further improvements over previous devices of the sort are that this instrument is highly directional so that it is affected only by the particular street light at which it is aimed. It is also unaffected by any momentary flickering of the street light, and if anything goes wrong with the instrument, the lights are turned off.

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 109.*

Science News Letter, June 20, 1942

PSYCHOLOGY

Answers Given to Child's Questions About War

FRANK, honest answers to his questions is one way of keeping the child from worry and fear about the war. Real answers that helped dispel the fears of a group of American children are given by Mrs. Mary Shattuck Fisher, chairman of the child study department of Vassar College and director of its nursery schools, in the *Journal of Home Economics.*

To the question, will New York be bombed, the answer was in part:

"Yes, New York may be bombed and it is important for us to be ready. We will build up defenses just as we have fire departments to protect us in case of fire."

The child's fear about air raids might be relieved by an answer such as the following:

"Yes, air raids are dangerous, but so is city traffic. We will all learn how to obey the new rules, how to watch for the right signals, how to help protect each other."

If the child is frightened at the possibility of being evacuated to a safer but far away place, the answer is to explain that it is better for families to stay together, even in war, but that if he does go away for a while it will be like going to camp. Other children and probably his teacher will go along. It will not be too far for his parents to visit him occasionally.

Hardest to answer are the questions about Daddy who has gone away to war. Suggested answers are:

"No, we don't know how long Daddy will be gone. We are all trying to help win the war as soon as possible so he will come back soon.

"Yes, of course we hope Daddy will come back safe and we believe he will. Yes, some men will be killed on our side too, but that is what war means. When our country is attacked, men are proud to fight for their country."

Especially important is the reassurance in the following:

"No, you will not be alone. If Daddy doesn't come back I will still take care of you."

Science News Letter, June 20, 1942

MEDICINE

Persistent Hiccup Cured By Use of New Serum

A SERUM that will cure persistent epidemic hiccup and post-operative hiccup is claimed by Dr. Edward C. Rosenow, of the Mayo Foundation, at the meeting of the American Society of Clinical Pathologists.

Cause of such attacks of hiccups, in Dr. Rosenow's opinion, is a streptococcus germ normally found in people's throats and in the air, which somehow acquires power to produce spasms of the diaphragm.

The serum has so far been given to 90 patients whose hiccups has persisted from one to 21 days in acute attacks, and as long as two and four years in chronic form. The severity and number of spasms was reported reduced after one injection of serum in 20 out of 60 patients and the spasms ceased after the first injection in 14 out of the 60 cases reported in detail.

Science News Letter, June 20, 1942