

MEDICINE

Transparent Plastic Used To Preserve Human Tissues

➤ HUMAN TISSUES, including small organs and embryos, can be preserved in a transparent plastic of the type used to replace glass in airplanes and many more familiar household objects. Details of this new method of preparing permanent, practically unbreakable specimens for study and museum exhibit are reported by Dr. Max M. Strumia and Dr. J. Ivan Hershey, of Bryn Mawr Hospital. (*Science*, Feb. 4)

The original size, shape and texture are kept "to a remarkable degree," the scientists state, and the color, though less brilliant than originally, may also be satisfactorily preserved.

The specimen to be preserved is first dehydrated at freezing temperatures and then saturated under vacuum with the liquid acrylic ester (monomeric ethyl methacrylate). Final steps consist in polymerization and, if desired, cutting and polishing the block for a more finished product.

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PSYCHOLOGY

Children Should Not Be Encouraged in War Games

➤ A-A-A-A-A-A-A! Bang! B-r-r-r-r-r! If the children in your block are constantly sounding off with these imitations of machine guns, bombs, hand grenades and other instruments of death, they should be encouraged instead to take a real part in the war effort by collecting scrap or buying war stamps. This is the judgment of Dr. Arthur L. Rautman, psychologist for the Sioux City Public Schools, Sioux City, Iowa.

While war games are natural enough in wartime and should not be forbidden, Dr. Rautman says in *Mental Hygiene*, neither should such play be encouraged. When a child is preoccupied with war games, it indicates an unhealthy state of mind and considerable worry on the part of the child because of the war.

Giving the child war toys won't help him to get rid of his worry. It may make it worse by reminding him constantly of war games even when he would otherwise not be preoccupied with them. Instead of a painted Tommy gun that is always a Tommy gun and nothing else, give him a neutral object like a set of blocks which can be in turn a fort, a locomotive, a gun or just a house, Dr.

Rautman advises. Such toys will not restrict him, but will give him a chance to widen his interests.

Participation in war stamp drives or the collection of newspapers will not only give the child release for the tension that makes him play war games, but will at the same time make him feel that he is doing something considered useful and valuable not only by himself but by the whole community. It gives him a genuine part in fighting the real war.

Don't forbid war games, Dr. Rautman counsels. It would be ineffectual, and it would add a sense of guilt to the disturbing fears the child already has. What parents and other adults need to do is to relieve the child's fears by giving him as much security as possible and providing him with realistic information about the war and the way it affects him. Such information should be presented unemotionally and should be adjusted to his understanding.

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MEDICINE

Bread-Mold Preventive Cures Athlete's Foot

➤ SODIUM PROPIONATE, a chemical now being used by many large baking companies to check the growth of mold in bread and cake, is an effective remedy for athlete's foot, ringworm and many other fungus infections, Dr. Edmund L. Keeney, of Baltimore, and Comdr. Edwin N. Broyles, of the Johns Hopkins Medical School now serving in the Navy, report. (*Bulletin of the Johns Hopkins Hospital*)

The chemical is used in an ointment, as a powder and in a solution.

Some of the 55 midshipmen at the U. S. Naval Academy who used the chemical for athlete's foot were cured in four weeks. After 20 weeks of treatment, fungus material was found in scrapings from the feet of only three of the men.

The remedy was equally effective in patients with ringworm of the scalp and of the skin, fungus infections of the ear, thrush and blacktongue due to a fungus.

Besides the 90 patients reported on, an additional 376 have been treated with sodium propionate in ointment, powder or solution, without any sign of irritation from its constant use. A contact dermatitis developed in one patient after four days of treatment.

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IN SCIEN

GEOLOGY

Four-Pound Meteorite Discovered by Accident

➤ A FOUR-POUND meteorite has been discovered quite by accident in a farmhouse yard in the northern part of Cowley County, Kansas. While serving as field representative for an oil company, H. H. Nininger, of the American Meteorite Laboratory, found the stony specimen.

"While pumping a drink, I was, as always, scanning the premises for odd-looking stones," Mr. Nininger reports. (*Popular Astronomy*, January) "Under some plum bushes a few steps away I noticed a rusty-looking chunk of rock about the size of my two fists and at once decided that it needed investigation. I stepped over and picked up the rock, which was evidently a badly weathered stony meteorite (an aerolite)."

Students of meteorites seldom have the good fortune to stumble upon a meteorite in the field. This specimen represents a completely new find. No other meteorite has been reported from any point nearer than 50 miles, and the stone is recognized as belonging to a different fall from those.

Meteorites are classified roughly as stone and iron. Iron specimens are more numerous in museums because they are more easily identified. Many more stones than irons, however, have been seen to fall.

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GENERAL SCIENCE

Mexico Plans Expansion Of Polytechnic Institute

➤ AN EXPANSION of research and teaching programs in science and technology is being planned for the Polytechnic Institute in Mexico City by Dr. Manuel Sandoval Vallarta, who has just been made the new head of this government technical university.

Formerly professor of physics at the Massachusetts Institute of Technology, Dr. Vallarta returned to his native Mexico to head the wartime government commission on scientific investigation, and he now has been given new responsibilities.

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CE FIELDS

MEDICINE

Anti-Thyroid Medicine Helps at High Altitudes

► DISCOVERY that an anti-thyroid medicine will increase resistance to the lack of oxygen at high altitudes, at least for rats, is announced by Dr. Albert S. Gordon, Dr. E. D. Goldsmith and Dr. Harry A. Charipper, of New York University. (*Science*, Feb. 4)

The anti-thyroid medicine is thiourea, recently found effective in treating humans suffering from overactivity of the thyroid gland. Thiourea, it has been found, interferes with the production of normal thyroid hormone by the gland.

When this medicine was given to rats for 12 or more days, they were able to survive at low atmospheric pressure comparable to that at an altitude of 32,000 feet, whereas the majority of untreated animals succumbed. The thyroid glands of the treated animals became enlarged, as a result of the treatment, but this condition rapidly returned to normal when the medicine was stopped. The enlargement of the gland indicated a condition of underactivity of the thyroid which the scientists believe is responsible for the animals' ability to stand reduced atmospheric pressures, or simulated high altitudes.

Whether these findings can be used to increase altitude tolerance for flying personnel is not stated in the report.

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PUBLIC HEALTH

Reading Glasses May Not Be Right for War Work

► SOME of the older men and women who are working in war plants may be having trouble with their eyes that could be corrected by properly prescribed eyeglasses. The glasses which many of these older persons wear for reading the newspaper or sewing may not help at all on the job, because the distance from the eye to the job is different from that for which the "reading" glasses were prescribed.

The same difficulty may be giving trouble to younger workers who have worn eyeglasses before but are now doing a different kind of work with dif-

ferent eye-to-job distance. If you go to your eye doctor because your eyes have been bothering you or you have been having headaches or getting unduly tired, it would be a good idea to tell him about the new job, so he can consider this factor in prescribing glasses for you.

When prescription lenses are put into protective goggles, special care is necessary to see that the lenses are set and kept in the correct position. Otherwise much harm may be done. If, for example, the lens is turned slightly in the frame, instead of correcting the error in vision, it might double it.

Goggles to protect the eyes of workers from dust, fumes, glare, flying particles and the like are important. About 95% of injuries to the eyesight of workers can be prevented, it has been estimated, if the worker is provided with and wears consistently the goggles or other eye-protecting equipment suited for his work.

Good sanitary conditions of workplace and washrooms are also important for protecting eyesight, because such conditions cut down chances of infection.

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CHEMISTRY

Identifying Textiles Aids Collection of Clothing

► IDENTIFYING textiles aids the collection of discarded clothing and rags for use of war sufferers of liberated nations.

Kits have been prepared which enable anyone to tell whether a piece of material is cotton, wool or made from another natural or artificial fiber, or if it is woven from several different fibers.

When white material is boiled in the dye (and color remover is included in the kit in case the fabric has already been dyed), various materials take on characteristic colors. After immersion in the dye bath, wool will appear brown. Cotton will turn green and silk a greenish black. Pieces of rayon will become a greenish-blue; acetate, bright orange; aralac, black; and nylon, a dull red.

These kits, which are made available by Science Service, make it possible for everyone to identify material by testing a sample. Even a small piece snipped from the seam of a dress or suit can be used.

The Textile Identification Unit of THINGS of science can be secured by sending 50c to SCIENCE NEWS LETTER, 1719 N Street, N.W., Washington 6, D. C., and asking for unit No. 39.

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METALLURGY

Aluminum to Be Available For Post-War Experiments

► SMALL AMOUNTS of aluminum are to be released for post-war experiments by the War Production Board. Under the new policy, the Aluminum and Magnesium Division will approve requests for a little of the light metal for experiments, provided manpower, technical skills or facilities are not diverted thereby from activities connected with the war effort.

Requests for allocations of aluminum for experiments to work out models for civilian goods after the cessation of hostilities have been refused in the past.

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AERONAUTICS

Electrical Gyroscopes Now Used on Airplanes

► ELECTRICALLY driven gyroscopes are now used on airplanes. These rapidly rotating wheels help the pilot maintain a straight and level course. Without gyroscopic flight instruments a pilot might fly in circles or in strangely tilted positions and not realize it, declared H. M. Witherow of the General Electric Company at the New York meeting of the American Institute of Electrical Engineers.

Airplanes, he said, are equipped with a directional gyroscope and a bank-and-climb gyroscope. How these two types are used on an automatic pilot was described by Albert Hansen, Jr., of the same company. The automatic pilot can take over the control of a plane and maintain the course set by the human pilot, he stated.

"Any pitch, roll or yaw—that is, lengthwise or crosswise tilt or turn—produces an electric signal in the automatic pilot," he said. "This signal is amplified and converted into mechanical power which moves elevators, ailerons and rudder to bring the airplane back to its correct" behavior and course.

The gyroscopic rotating mechanism in the electrically driven gyroscope is brought up to speed by a motor which may spin at some 12,000 revolutions a minute. Electric drive is preferred by many because the mechanism may be sealed in cases to prevent the entrance of gritty dust found over sandy deserts and other battle areas. Air-driven directional and horizon gyros have been used in airplanes for several years.

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