

AGRICULTURE

Japanese Gardeners Work At Propagation of Guayule

INTERNED Japanese, camped in California's dry interior, are doing their bit toward the solution of the severe problem of rubber shortage, imposed on the United States by Japan's aggressor rulers. Many of them are skilled gardeners, who until now have had almost a monopoly on West Coast gardening and nursery business. They are now busied in mass experiments in the planting of guayule cuttings, stimulated to produce roots by treatment with artificial growth hormones.

Guayule plants are usually produced from seed. However, if work now going on in plant breeding stations succeeds in producing new strains with higher rubber content, it will be advantageous to propagate them by means of cuttings, just as choice fruit and flower varieties are propagated by means of cuttings or grafts, to keep the quality of the new plants uniform and high. By that time, the interned Japanese will have gained experience and skill in handling the new crop.

The internees, both alien and native born, are reported to be carrying on the job willingly and with good morale.

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MEDICINE

Castor Oil, Sulfa Drugs Useful In Skin Diseases

SKIN diseases, notoriously difficult to cure, are now being attacked by such diverse substances as castor oil, the sulfa drugs and concentrated sulfur itself, according to reports to the New York Medical Society.

Castor oil's virtue, apparently, is in preventing skin irritation either by cleansing agents or by ointments containing special medicines for treating skin troubles. Sulfonated hydrogenated castor oil is "an excellent ingredient of detergents (cleansing agents) and ointments," Dr. Shepard Quinby and Dr. George W. Fiero, of Buffalo, reported on the basis of experience with 400 persons, 300 of whom were patients, and the other 100 have served as guinea pigs for tests of any possible irritating property of the oil.

A vaselin containing 30% to 50% of precipitated sulfur healed certain acute skin ailments that were not helped by conventional treatment including the use of soothing lotions and salves, Dr.

E. William Abramowitz, of New York City, reported. He has used this preparation of concentrated sulfur in petrolatum for the past five years for cases of pityriasis rosea, a non-contagious skin disease with reddish, scaly patches and fever, and other acute skin ailments of the kind that are difficult to clear up and keep coming back.

Sulfa drugs have been given both in pills and in a fine powder or ointment to be used locally on more than 200 patients at Bellevue Hospital, Dr. Maurice J. Costello, Dr. Abraham M. Rubino-witz and Dr. Simeon E. Landy, of New York City, reported. The patients were suffering from various skin diseases including lymphogranuloma venereum, chancroid, erysipelas, certain pyogenic (pus forming) skin diseases, infectious eczema-like skin trouble, and a burning, itching, blistering skin disease called dermatitis herpetiformis.

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ENGINEERING

Hollow Propeller Is Welded on the Inside

AMETHOD by which hollow metal aircraft propeller blades can be welded on the inside has been invented by James H. McKee of Pittsburgh, Pa., for which he was awarded U. S. Patent 2,280,337. The rights have been assigned to the Curtiss-Wright Corporation, New York.

The hollow metal propeller to which the invention applies is composed of a front and a back piece that come together in the form of a sharp V at the edges. These must be welded together. If the welding is done from the outside, the welding material does not penetrate sufficiently to form a smooth surface on the inside. If the welding could be done on the inside, the metal when melted would by capillary attraction fill the tip of the V with a smooth, rounded surface, like that which appears at the surface of a liquid that has risen in a narrow crevice.

This feat was accomplished by laying the propeller on its edge and placing short pieces of the welding material in the form of wire along the edge inside. A special furnace, which embraced both sides of the propeller for a small part of its width and for a small part of its length, was used to heat the edge at one place, then slid along to heat it at the next place, and so on. In this way the entire blade was welded from the inside.

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ZOOLOGY

Sea-Lions May Be Food For Fur Animals on Land

SEA-LIONS, rated as major nuisances by West Coast fishermen because of the number of fish they take, may become eaten instead of eaters, if experiments now being conducted by British Columbia authorities pan out well. There are numerous fur farms along the coast, where foxes and other domesticated fur-bearers expect their meals of meat every day. Sea-lion meat may be the answer.

Principal difficulty so far has been cost of collection. The seal-like animals bask on slippery, wave-washed rocks when they are not actually in the water, making it hard, often dangerous, for rifle-armed hunters to bag them in sufficient numbers to make paying cargoes.

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WAR

Parasols Proposed for American Doughboys

JAPANESE troops have had fun poked at them in the past for carrying fans—even though these came in handy during halts on a hot day. Now parasols are proposed for American doughboys, and by an infantry officer, at that!

In the *Infantry Journal* this officer, who modestly signs himself merely Infantry Major, tells of a one-man camouflaged fox-hole cover he has invented, which is built around an umbrella frame. He extends the ribs with coat-hanger wire, replaces the cover with regular camouflage netting, and saws off the handle. To the netting the usual bits of rags, twigs and scraps of grass are tied, to blend with the ground cover where the soldier wants to conceal himself.

From the air, the doughboy in his fox-hole is quite invisible to would-be strafing planes. From the ground, he is also invisible to enemy snipers, even when he tilts the cover up for a quick look-see.

The whole thing can be set up in a matter of seconds, and it adds only a pound to the weight of the field kit.

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CE FIELDS

PHYSIOLOGY

Sex Perverts Not Lacking In Male Sex Hormone

DRAMATIC transformation of seven "somewhat effeminate," jealous, jittery young men into he-men with beards, an interest in girls and enough ambition to advance in their professions or to get off relief rolls into regular jobs was reported by Dr. Jacob Kasanin, director of psychiatry at Mount Zion Hospital, San Francisco, and Major Gerson R. Biskind, Letterman General Hospital, San Francisco, at the meeting of the California State Medical Society.

These young men had undeveloped male sex glands, but had not "become sexually depraved in the sense of becoming interested in homosexuality," the physicians reported. Treatment with the male sex hormone, testosterone, by implanting "banks" of the hormone in their muscles to supply the deficient amount from their glands, brought about the personality changes reported.

A group of patients examined in connection with Selective Service on account of homosexuality, on the other hand, did not show any evidence of lack of sex hormone secretion.

"This points to the fact," the physicians conclude, "that homosexuality and sexual perversions are probably psychological in origin."

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PSYCHOLOGY

Handicapped Child Should Be Encouraged to Develop

EVERYONE'S heart goes out to the handicapped child. Our instinct is to surround him with comfort and protection and avoid all reference to his handicap.

As a result, such a child feels that he is set apart from other children, and the embarrassment which he senses behind our evasions only increases his feeling of inferiority.

"It is far better mental hygiene to approach the training program with a frank and sympathetic recognition of the limitation, and to attempt to solve the child's problem by capitalizing on his

assets." This is the advice of Dr. Eric Kent Clarke, Director of the Psychiatric Clinic for Children at the University of Minnesota, in his new book, *Mental Hygiene for Community Nursing*. (Reviewed, *SNL*, this issue).

Dr. Clarke cites the case of Bernice, whose right arm and leg had been crippled by infantile paralysis. She was brought to school as an invalid by an anxious mother who resisted every attempt of the teachers to develop the child's capacities. The school persisted, however, until Bernice had learned to use both hands. This new ability gave her the incentive she needed to break away from her invalid role at home, and she became a lively, hopeful child eager to develop her capacities.

In another case it was the parents' wisdom that saved a boy from tragedy. Following an accident, he had had both legs amputated below the knee. After the first shock, the family rallied and tackled the problem with sympathy and common sense. Under their encouragement, the boy learned to skate, dance, and take part in athletic games. This young man, now in his twenties, refuses to consider himself handicapped and is living a normal, happy life.

The cruel ostracism that many handicapped children have to face from their schoolmates is a reaction to the child's personality, rather than to his physical limitation. If the child can be taught to accept his handicap, it will be accepted by other children on his own terms.

But if his family regards him as an unfortunate invalid, he will be exposed to needless cruelty later.

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ENGINEERING

Portable Steel Overpass Developed by Army

A PORTABLE steel overpass to aid troop and supply transport has been developed by Army engineers.

The overpass can be knocked down to three sections easily hauled on truck trailers and can be reassembled in less than three hours. It can be used at busy intersections where there is a steady flow of traffic in one direction obstructing traffic waiting to cross.

Need for such an overpass was discovered in the Louisiana maneuvers where a flank attack was held up by steady streams of supply and troop traffic. Had the overpass been available the attacking troops could have been moved over the supply trains.

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MEDICINE

Sex Prejudice Dying In Medical Profession

HOPE that the already waning sex prejudice against women physicians will be completely erased by the cooperation of women physicians in war work, was expressed by Dr. Sara M. Jordan, Boston physician who is chairman of the Subcommittee on Women Physicians of the Procurement and Assignment Service. She spoke before the Conference on War Demands for Trained Personnel.

The number of women physicians graduating from medical schools during the war is not, however, likely to increase greatly even if there is an increase in the number of women wanting to study medicine, Dr. Jordan predicted. This is because medical schools are limited in their capacity and the need for men medical graduates appears to be predominant.

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ENGINEERING

Glass Used to Cushion Concussion From Bombs

A NEW blast-cushioning non-combustible glass fiber material for blacking out war production plants was announced by Owens-Corning Fiberglas Corporation. The material is designed to reduce danger from concussion and to provide protection against the spread of fire caused by incendiary bombs or explosives. Known as Fiberglas OC-9 Board, the new material is composed of fine resilient glass fibers compressed and treated with a binder which gives it sufficient rigidity to serve as a self-supporting fire-resistant material. The material can be faced with glass fiber cloth, plywood or other surfacing materials.

Experience in England has shown that even fairly distant bombing may prove highly destructive to industrial operations by shattering windows, scattering death-dealing glass fragments and disrupting delicate instruments.

Although the concussion-absorbing qualities of the compressed glass fibers can not provide protection against nearby blasts the resilient light-obscuring and protective materials may prove of definite value by absorbing part of the concussion caused by explosions. The Detroit exhibit is the first showing of the use of glass fiber materials for blacking out existing industrial plants.

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