

tumors of the uterus grow only during the years of active ovarian function and

begin to shrink after the change of life or if the ovaries are surgically removed."

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PSYCHOLOGY

"Door-Key Children"

Youngsters who used to stay only a short while on the playground now arrive in the early morning with the front door key and money for the evening meal.

► "DOOR-KEY" CHILDREN of war workers are a new problem in many communities. Supplying these offspring of the war and their parents with proper recreation was the main problem of the War Recreation Congress meeting in Cincinnati.

Children whose parents are at work or war, often come to the playgrounds in the morning bringing the front door key with them. Children who used to stay only a short while now remain all day until mother returns from work.

On a Baltimore playground the youngsters deposit their keys on a key-board when they enter, Ruth Garber Ehlers, Baltimore supervisor of social recreation, reported. Many of them check marketing money with the leader. When it is time to go home, the leader returns keys and the grocery money for the evening meal.

Special central playgrounds have been established in defense areas so that the children can be cared for.

"Stowaways" have even been found here. Tots in baby carriages, too young to be accepted at the playgrounds, are left there when the leader isn't looking. The mothers go to work.

To care for these "defense work orphans," day nurseries have been opened in Paterson, N. J. Admission is 25 cents per day "American plan," according to William Brutterri, acting superintendent of recreation there.

Canada has found this problem serious enough to set up a government sponsored plan, Jean Hall, Women's Division of Canadian National Selective Service, told the Congress. The new program to care for children of war workers will go into effect within the next few weeks. Thousands of married women with children, answered the first call for workers without making proper provision for their offspring.

The Canadian plan, perhaps a foretaste of things to come in this country, provides nursery care for small children. Lunches will be served to school child-

ren and they will be cared for after school hours until their mothers return from factories. There is also provision in the government plan for "foster homes" for those who prefer that type of care.

Despite separation of families by war work, after-hours recreation is helping to bring adults and children closer together in their relationships, said Russell J. Foval, superintendent of recreation at Alton, Ill., in addressing the meeting. Adult participation on the same playgrounds with the young people is reported greater than ever before.

Working at top speed in war plants, sometimes beset with war worries, such wholesome recreation is essential.

As war plants are thrown up, working hours "staggered" and now gasoline rationed, it is increasingly difficult to carry on the usual recreational program at industrial plants. Industries are doing what they can, but permanent facilities at the plants are often practically useless except for lunch hour or pre- and post-shift programs, W. H. Edmund of the Goodyear Aircraft Corporation, pointed out in one of the discussion groups of the War Recreation Congress. New industries, in many cases, are promoting and using community facilities in the neighborhoods where the employees live.

Other recreation leaders present also concentrated on plans to minimize the effect of war on the physical and mental health of John Q. Public.

"War inevitably distorts life," declared Ray Johns, director of field operations for the U. S. O., in addressing the War Recreation Congress. "War pressures and tensions can be met only by persons who have reserves of physical, intellectual, and spiritual resources. Recreation in war-time has an important role to play. Recreation is not a peace-time luxury; it is a war-time necessity. Recreation is more than an escape from war's tensions . . . Recreation maintains, creates morale."

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GUAYULE—These plants are two years old and contain about 9% rubber of dry weight.

AGRICULTURE

Rubber Is Being Grown In California Valley

See Front Cover

► A SEA of guayule plants which will do their bit toward relieving the rubber shortage is shown under cultivation on the front cover of this week's SCIENCE NEWS LETTER.

It is the plantation of the Intercontinental Rubber Producers in the Salinas Valley, California, which is said to be the only place in the world where guayule is being cultivated. The plant grows wild in United States and elsewhere.

Rubber can be extracted from the plant after one year's growth, but the best yields are obtained after four years.

The rubber does not occur as latex, as in rubber trees, but as solid particles and shreds embedded in the tissues of the plant, amounting to 18% to 20% of the weight of the plant. In harvesting the entire plant is pulled up roots and all. It is chopped up and ground in water and the rubber floats to the surface.

The photograph on the cover and those on these pages are official pictures from the files of the U. S. Department of Agriculture and the Farm Security Administration.

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MEDICINE

New Celiac Treatment

Banana-less treatment of baby's disease gives fast relief of symptoms. Hypodermic injection of large doses of crude extracts of liver and B complex vitamins used.

► A NEW, speedy and banana-less treatment for celiac disease has been found.

Celiac disease is "a kind of chronic indigestion" affecting infants and children which has been known as long ago as 1888. It has recently been widely publicized because of the war-caused banana shortage. Bananas, staple article in the modern, healthy baby's diet, are also an important part of the special diet used for some years in treatment of celiac disease.

The new, banana-less treatment for this sickness was devised by Dr. C. D. May, Dr. J. F. McCreary and the late Prof. K. D. Blackfan, in studies at Harvard Medical School. Dr. May and Dr. McCreary, now of Toronto, have turned their entire attention to war work and so report the studies leading to the new treatment in the form of "notes" in the *Journal of Pediatrics*, (September) official organ of the American Academy of Pediatrics.

Their treatment for celiac disease consists in daily hypodermic injections of large doses of crude extracts of liver and the B complex vitamins. The liver extract and the vitamin extract are given

on alternate days. Most patients are given a normal diet for their age from the very outset of treatment. Considerable improvement took place within three to six weeks. Patients previously treated by diet alone required from three or four months to six years, with an average of two years, for improvement.

Although their patients were given normal diets, the physicians state that "where special studies are not being undertaken, it would seem desirable to offer a diet composed of the simple foods well tolerated by patients with celiac disease (skimmed milk, bananas, curds and scraped beef). The diet may

then be liberalized according to the improvement of the patient.

"Naturally, the usual supplement of vitamins A, D, and C should be given, preferably in about twice the amounts required to meet the accepted daily requirements."

Celiac disease is primarily due to a defect in absorption of fat and carbohydrate (sugar and starch foods) from the mucous membrane lining the intestines. This, in turn, may result from deficiency of some factor, extrinsic or intrinsic, needed for the chemical processes by which food is converted into a form that can be absorbed by the intestinal walls and into the blood stream.

Patients with this sometimes fatal disease besides showing signs of intestinal disturbance have greatly distended abdomens, like pot-bellies, while the buttocks, groins and under-arm regions, usually so fat on babies and small children, are wasted almost to skin and bones.

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ENGINEERING

Gas Could Go Farther

Your rations could be stretched as much as 50% by careful driving and care of your car. SAE board gives ten easy rules.

► BY CAREFUL driving and proper care of your car you can get as much as 150 miles for every 100 you have been getting in your present careless way, save your tires and prolong the useful life of your car.

This is what the men who design and build automobiles say in a report to the Office of Emergency Management prepared by the War Engineering Board of the Society of Automotive Engineers, with J. C. Zeder, chief engineer of the Chrysler Corporation, as chairman.

And this is what they tell you you must do.

1. Drive at moderate speeds; at 30 miles per hour gasoline is saved, car and tires last longer; fuel consumption is 50% lower than at 60.

2. Accelerate moderately; saves gasoline and brakes.

3. Use brakes only when necessary, saves gasoline and brakes.

4. Avoid idling engine unnecessarily, "racing" the motor, "pumping" the accelerator, and excessive use of choke; saves considerable gasoline.

5. Use lightest lubricants recommended for engine, transmission, and differential; saves gasoline by making vehicle easier-running.

6. Keep chassis and parts well lubricated; reduces friction, saves gasoline and wear.

7. Keep ignition system, spark plugs, carburetor, and air-cleaner clean and in good condition; prevents waste of fuel.

8. Keep motor properly tuned, brakes in proper adjustment, wheels properly aligned; assures greatest gasoline economy, tire mileage, and car service.

9. Keep cooling system thermostats at proper setting; gasoline economy reaches maximum when motor operates at highest recommended temperature.

10. Keep tires correctly inflated; for maximum gasoline mileage, inflate to five pounds above specified pressures.

Observe these ten easy rules, and stop worrying about your gasoline ration, your tires and your car. You will be doing the best that can be done for all three, and no one can do more.

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WORMS—That is what the guayule rubber is called when it is in this form after being chopped and crushed and put in settling tanks.