

Human Guinea Pig Club

The guinea pig, which is domesticated in most parts of the world, has been widely used in bacteriological experiments. This experimental use of the guinea pig has become so general that the mere mention of this creature's name suggests the idea of "try it out on Rover."

The "Human Guinea Pig club" is the unofficial caption of the U. S. army subsistence research laboratory at the Chicago quartermaster depot. Here samples of the foods manufactured by various firms are submitted for analysis, tested for vitamin content and other nutritional values. It is here that the containers are subjected to tests simulating tropical and arctic conditions. Here also are evolved the emergency rations designed for aviators, paratroopers and commandos.

The Guinea Pig club is comprehensive in its membership. Generals, lieutenants, famed scientists, stenographers, civilians and enlisted men all partake of food prepared under various formulas. It is they who decide whether the rations are palatable, digestible and nutritious. Every noon the club meets for this purpose, and its members risk their digestions in the name of patriotism, so that the soldier may eat the proper food. And we all know how very important it is that the soldier gets the proper food to sustain him in his grueling routine from day to day. It has often been said that food will win the war. Certainly there is no denying the importance of the part it plays.

The following series of pictures gives you an opportunity to take a peek at America's most unique club.



Brig. Gen. Joseph E. Barzynski, commanding general of the Chicago Quartermaster depot, at end of table, presides over the famous "Human Guinea Pig club." The ham served at this particular meal was eleven years old, and the eggs used in the dessert were four years old. (U. S. Signal Corps photos.)



In this laboratory, the army technicians break down the food to determine the vitamin content and its nutritiousness.



Under supervision of the Quartermaster Corps the concentrated food for use of troops in the field is packed by a chewing gum manufacturer who has converted his production line to the packing of emergency rations.



Selecting samples of food submitted by various manufacturers.

Sudden Proposal

By
BARBARA BENEDICT
Associated Newspapers.
WNU Features.

DARTHEA stood before her bedroom mirror, surveyed her trim young figure, arrayed in an especially designed white satin evening frock, and frowned. Within the hour Ted Wilder would call for her and they would be on their way to the Philbrick's charity ball.

It was because of Ted that Darthea frowned. She loved him, had loved him for more than a year. And she felt reasonably sure that he loved her. Though he had never said so; had never proposed marriage or talked about the future. That was where the trouble lay. Ted was waiting. Darthea knew this; knew that he was holding off until things became a little less uncertain.

Well, a girl got tired of waiting. If she loved a man—as Darthea loved Ted—she'd go through anything with him. Good times and bad. Ted was too conservative; too afraid to face the thing without being sure of a comfortable income.

Of late, another obstacle had entered the picture—Mel Harper, young, dashing, handsome. Darthea liked him. He was good company. But it ended right there. She loved Ted, and that was that.

Still, her interest in Mel had excited Ted's jealousy. Though he had never mentioned the matter, Darthea felt that Mel served only to make a proposal of marriage more remote. But in spite of it all, it was



Darthea sat down again, pouting prettily.

up to Ted. She wasn't going to refuse Mel one or two evenings a week. Not, at least, until something definite had been decided upon.

Darthea thought of these things as she surveyed herself in the mirror. They troubled her. Despite her resolutions she wanted Ted; wanted him to propose. Perhaps, she thought, Mel Harper might be a means to an end.

Ted was more morose than ever that night. Something was bothering him. He evaded conversation all the way to the country club. And even while they danced, Darthea suspected that his mind was on other things.

Toward the middle of the evening they strolled out on the terrace and found a vacant bench. Ted stared out over the river that drifted silently by at their feet, and lost himself in thought.

At length Darthea said: "There's something wrong, Ted. I'd like to help you, if I could."

"It's nothing. I'm sorry if I appear rude."

"Well, you do! You've been rude all evening. You're not very good company."

"I know it," he said bitterly. "I know I'm not. And I'm sorry."

Darthea almost regretted her words. She knew now that he was thinking of Mel Harper, thinking how much more entertaining Mel could be. She said, casually:

"Mel Harper was over yesterday. He played tennis together. He was asking for you."

Ted suddenly whirled. Fierce anger flashed in his eyes. The dreamy, morose mood dropped from his expression like a mask.

"Mel! Mel! He's all you talk about! All you think about! Why don't you tell me you want me to step out of the picture! Why not say it, without so much beating around the bush!"

"Why Ted! Ted Wilder! Whatever are you saying?"

"Oh, don't be so messy about it! Don't try to pretend it isn't so!"

"It isn't! It isn't! Not one bit of it is so. I had no idea—"

Ted laughed mirthlessly.

"Don't try to be kind, Darthea. Don't try to spare my feelings. I know how the cards lie. I've thought it all over. I know. And I can stand it if you tell me now. In fact, I'd rather you wouldn't put it off any longer."

"Ted!" Darthea was on her feet. Her eyes were flashing fire. "Of all the crazy notions! Why—why—you're absolutely impossible!"

"You love him!"

"I don't!"

"Yes, you do too. I can tell by the way you act with him. You love him and you're trying to ease your conscience with me."

"With you! Why should I have to ease my conscience with you? What right have you to say these things? What strings have you got attached to me? It's silly."

Darthea was thoroughly aroused, and Ted for the first time began to reconsider. After all, there was nothing between them, nothing but an unspoken understanding, which, after all, seemed to have existed only for him. He took one of her hands in his, which she instantly withdrew.

"I'm sorry, Darthea. It certainly looked as if you were in love with him."

"That's because of your own stupidity. It's you—"

"Darthea! I—I—could you love me now?"

Darthea melted perceptibly. She sat down again, pouting prettily. "Not if you think I love Mel Harper."

"I don't. I swear it. I—only wanted to make sure—to find out if you loved me."

Darthea swayed toward him. She saw the enraptured look in his eyes, and thrilled at it. She said, softly: "I don't love Mel Harper. I never have. I love you. And just to prove it, I'll—I'll marry you!"

"Darthea! Oh, sweet, that's too wonderful. I—I can hardly believe you're really serious." He paused a moment, then suddenly turned, inspiration lighting his eyes. "Darthea, let's get married now. Tonight!"

"Tonight?"

"Yes. We can get a waiver, and have the J.P. marry us down in the village. It'll be over before we know it."

Darthea indicated her agreement to the proposition by lifting her lips to be kissed.

As they swept down the hill toward town in Ted's roadster, she felt a sudden feeling of gratitude for Mel Harper. She smiled in the darkness to herself. "A means to an end," she mused.

Fuel User's Pledge Has Many Helpful Suggestions

A fuel user's pledge in the interest of the war effort and conservation of fuel and metal includes ten suggestions:

1. Order fuel early and keep an adequate stock on hand to equalize and conserve transportation and delivery facilities.
2. Have the heating plant cleaned for the summer shut-down period in order to prevent corrosion. More heating plants rust out than wear out. With proper care, summer and winter, hot water boilers have been known to give more than a half century of service.
3. Ask a reliable contractor or dealer in heating equipment to make a thorough inspection of the heating plant including chimney, smoke pipe, controls, valves, and burner or stoker.
4. Have whatever repairs or alterations necessary to efficient operation of the heating plant made at once. This aids metal conservation because it enables dealers and manufacturers to maintain inventories in accordance with actual needs. It is assurance for the home owner that materials needed for necessary repairs will be available in time. Home owners in eastern states whose heating plants are suitable for burning coal are urged to take immediate steps for conversion.
5. Reduce heat losses from the house by means of insulation, weather-stripping of windows and doors, and closing of fireplace dampers.
6. Turn off heat in unused rooms such as guest rooms, garage, recreation rooms, and maintain lower temperatures in bedrooms.
7. Check heat losses from boiler, furnace, piping, or ductwork by adequate insulation.
8. Have thermostatic controls installed to prevent overheating or underheating because both are dangerous to health. Overheating wastes fuel.
9. Lower thermostat setting whenever heat is not needed, as for instance at night or when house is not occupied. When the indoor temperature is permitted to drop a maximum of six degrees at night, there is a saving of from 8 to 10 per cent in fuel.
10. Operate heating plant efficiently in accordance with suggestions by manufacturer or heating contractor.

Letting in the Desert

In a paper in the Geographical Journal of June, Prof. E. P. Stebbing directs attention to the serious threat to the West African colonies of Great Britain and France by the encroachment of the Sahara. This is due, not to climatic causes, but to the methods of agriculture pursued. Shifting cultivation is still the practice. A piece of forest is felled, the timber burnt and the ground is sown and ultimately harvested. When the weeds become too heavy or the yield inadequate the patch is abandoned and a new one occupied.

Thus, the deciduous forest on the verge of the Sudan becomes degraded, more open and drier. Eventually savannah supervenes, which in West Africa, is a term applied to bush or scrub. Herds of the nomadic shepherds then occupy and further destroy it. When its fodder value has almost gone, the herdsman cuts the scrub trees to get fodder for the goat. This is the last stage in the ruination of the land and the advance of the desert.

TO YOUR Good Health

By DR. JAMES W. BARTON

Released by Western Newspaper Union.

EPILEPSY

Some years ago I expressed the personal thought that if I had been gifted with the qualities of a research physician, the investigation as to the cause of epilepsy would have been my first challenge, after cancer.

Despite the fact that it is one of the oldest known diseases, the actual cause is unknown.

We know that too much liquid in the body brings on the attacks in some individuals. We know that some cases are due to injury. We know also that cutting down on starch foods and increasing fat foods is all that is necessary to prevent attacks in some individuals.



Dr. Barton

In addition to the knowledge now possessed by physicians everywhere there are many research physicians still patiently working on the problem of epilepsy. It might be well to speak of the Harvard Epilepsy commission where the original work of Drs. H. H. Merritt and T. J. Putnam on dilantin sodium outlined in the Journal of the American Medical Association four years ago, is being further investigated and results reported to physicians everywhere.

For years, successful treatment of epilepsy has, as outlined above, been (a) cutting down on liquids, (b) cutting down on starch foods, (c) increasing fat foods. The medical treatment has been phenobarbital or other of the barbitol drugs which replaced the bromides of former years.

A new drug in use for the past few years is dilantin sodium, the use of which has been reported by Drs. Merritt and Putnam in Boston, and Dr. C. P. Kimball among the children attending the Detroit board of education's special school for epileptics.

While physicians report still some unpleasant reactions from dilantin sodium and prefer phenobarbital, more and more dilantin sodium is coming into general use to prevent the epileptic convulsions.

Until, then, the cause of epilepsy is found, epileptics can, in most cases, live safely with none of the fears of attacks occurring in public or dangerous situations by following the diet suggestions mentioned above and the use of dilantin sodium or phenobarbital as prescribed by their physician.

Massage Relieves Pain and Stiffness

During and immediately following the war of 1914-18, the value of massage in quieting pain, loosening up stiff joints and muscles, aiding the circulation, helping to move the wastes along the large bowel was so well recognized that schools of massage, sometimes as a part of a course in physical therapy, were established, and, when connected with recognized colleges, diplomas were given.

Just before this present war started massage was not receiving as much attention as it deserved but now there is renewed interest therein in actual field operations and even in training camps.

Unfortunately it is only at war time that physicians as a whole give any attention to massage; even then it is left to non-physicians not only to give the actual massage but often to prescribe the type of massage that should be given in any particular case. Thus Dr. Ralph Pemberton, Philadelphia, in his "Handbook of Physical Therapy" states "There is probably no other measure of equal known value which is so little used and understood by the medical profession as a whole."

At one time it was thought that massage had just the same effect upon the muscles as exercise; in fact was a form of exercise but the benefit derived is now believed due to another cause.

Why is massage so helpful to stiff, painful joints and muscles? In the Journal of the American Medical Association, Dr. George Morris Piersol, Philadelphia, states that from direct observation on the circulation of the blood in the little blood vessels (capillaries) massage causes an increased rate of blood flow and changes in the vessel walls followed by an increased interchange of substances between the blood and tissue cells. That is, the blood takes away from the tissues the substances causing tiredness, stiffness and pain, and brings to these tissues fresh blood.

QUESTION BOX

Q.—What is the difference between an oculist and an optometrist? My husband has recovered from a serious illness and though his appetite is good, he doesn't seem to gain weight. Can you suggest a cause for this?

A.—An optometrist is trained to measure the needs of the eyesight and prescribe glasses needed. The oculist is a physician and surgeon and has the knowledge to prescribe for vision also.



Farm Topics

Corn 'Rheumatism' Cause Explained

Cure Effected by Using Phosphorus and Potash

By Dr. George N. Hoffer

"Rheumatism" in the joints of growing corn that results in poorly formed ears or dwarfed growth can be cured by doses of potash or phosphorus fertilizer or a combination of both elements applied to the soil in sufficient quantities.

Corn "rheumatism" is especially prevalent in areas that have been consistently planted to this crop for generations. It often manifests itself in poor yields from normal looking corn plants that fail to produce properly ripened ears.

If the stems of these backward corn plants are slit lengthwise, the chances are that the interior of the



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Agriculture in Industry

By FLORENCE C. WEED

Cellulose for Textiles

Wood and cotton linters, grown on American farms, are used to make rayon, the fabric that goes into everything from football breeches to velvet evening wraps. So popular has it become that five times more rayon than silk is now used. The process was discovered 50 years ago by a Frenchman and has been produced commercially in the United States since 1911. More than 500,000,000 pounds of rayon yarn is used annually.

Although there are several varieties of the process, most rayon is made by adding chemicals to spruce wood and cotton linters to change it into a thick, syrupy solution. This is pressed through a kind of strainer, called a spinneret. Out of each tiny hole comes a single filament of yarn. When this is cleaned and dried, it is the thread to be woven into cloth.

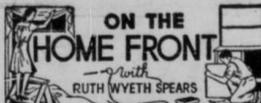
Filaments can be combined into different sizes of yarns, finer than those of a silkworm or thicker than coarse wool. Mixed with cotton, silk, flax or wool, this yarn is woven into cloth of endless variety of textures.

This same process invented for rayon is used to make yarn from soybean cellulose and the casein from soured milk. Soybeans will be used for automobile upholstery within a short time. So enthusiastic is Henry Ford about the possibilities of this fabric that he has had a suit made from soybean cloth woven to resemble wool.

Italy pioneered in making silk wool.

Injured Trees

Trees that have been injured by storms should be given treatment as soon as possible. This treatment should consist of cutting the ends of the broken branches back beyond where the bark was torn. In some instances it may be advisable to remove the entire branch back to the main stem or lateral. These torn and ragged ends of branches should be removed immediately and all wounds that are two inches in diameter or over should be painted.



ALMOST any plain washstand or dresser may be given long smart lines by adding open shelves at the ends. Here, a top of plywood with a plain moulding around the edges extends across the top of the stand and shelves. By adding a plain baseboard and a coat of paint the piece is finished with a modern air.

The diagram at the upper right shows how to make the wall decoration from a remnant of flowered chintz. If you use an old frame, the chintz picture may be given the appearance of an oil painting by applying several coats of varnish.

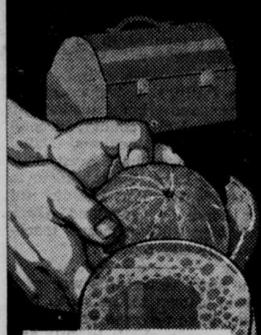
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