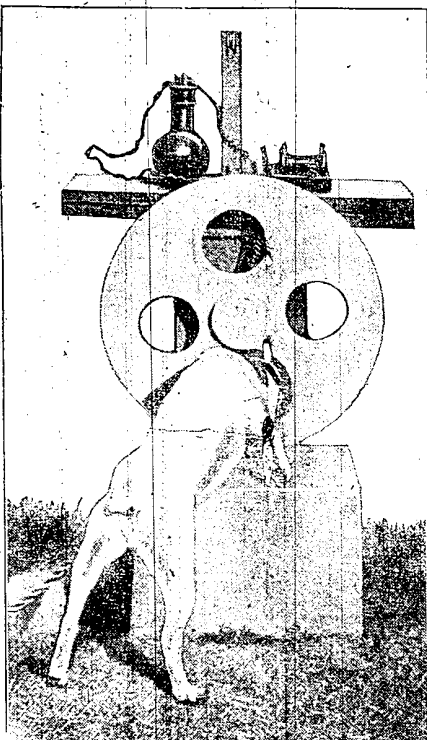


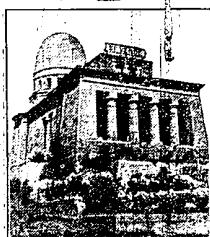
# WORLD WONDERS

## Training a Dog's Memory



This photograph does not represent some ingenious method of executing a dog. It shows a canine friend of man having his powers of memory tested. The dog learns that when he puts his head through that hole in the disc which has a red rim to it he is given some of his favorite food. Then, his education in this matter has been completed, he is brought to the disc at various times to see how often he remembers through which hole to put his head, and how often he makes a mistake. Each time he puts his head through a wrong hole he receives a very slight electrical shock, warning him of his mistake, and also registering the mistake. The disc is, of course, turned from time to time, so that the position of the hole with the red rim round it is altered. Thus is the dog's memory cultivated.

## MONUMENTAL TOMB FOR SALE COPPER PENNIES ARE PURE

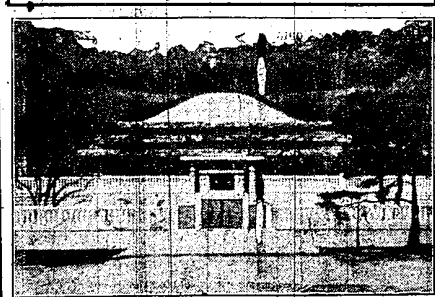


The copper cent is a product of electricity. Almost pure copper is used to make this the only copper coin issued in the country. This pure copper is secured by an electric process. In the old days it was a very expensive process to reduce copper ore, and the resultant copper was far from being pure. Now this refining is done by electricity, much the same way as electroplating is accomplished. The copper ore is placed in a tank near the positive plate of a battery and the electric current turned on. The copper is rapidly broken up into minute particles, which are carried through the water by the passage of electricity and deposited on the negative plate of the tank. The result is known as "electrolytic copper," which is the purest known in the metal industry.

## MUCH SUNSHINE IN SPAIN

Spain has more sunshine than any country in Europe. The yearly average is 3,000 hours. In England it is 1,400.

## Mausoleum of an Emperor



This mausoleum of the late emperor of Japan was recently completed at a cost of \$500,000. It is at Momoyama, near Kyoto, and people from all parts of the empire make pilgrimages to the spot. The top of the mausoleum is covered with 300,000 white pebbles specially collected from the shores of the Pacific ocean.

## SOME WONDERFUL ESCAPES

An acrobat, who performs on a trap attached to a balloon, recently fell a distance of 1,500 feet into the lake of Zurich, just missing death by a few yards, for if he had not jumped from his seat when he did he would have been dashed to pieces on the rocky shore of the lake. He escaped unhurt.

Several instances of people falling from incredible heights and surviving to tell the tale can be quoted. At Brighton, England, an actor, known as Lieutenant Darling, who was playing the part of a naval officer who is attacked by brigands in a moving picture play, and who was supposed to slip over the cliff—in reality, however, to stand on plank which had been placed below the edge in make the illusion complete—missed his footing and fell ninety feet into the sea, escaping with a sprained wrist.

An even more miraculous escape after a fall over a cliff was that of a seven-year-old child who had been gathering flowers on Culver cliff, near Sandown, Isle of Wight, who slipped and fell 200 feet. She was only slightly injured, a bottle which she carried being unbroken.

Often the merest accidents prevent death. A Cardiff laborer some time ago fell from a scaffolding about fifty feet high, but as he fell his foot caught in the scaffolding and he hung head downwards until rescued. Similarly, a woman who fell out of a window backwards at Holborn lately was saved from instant death by her clothing having caught in the window catch.

## GREAT STRENGTH OF BEETLES

If you were as strong, proportionately, as the beetle, and were weighing 200 pounds, you would be able to lift with ease 40,000 pounds. A beetle can lift 200 times its own weight.

Or, if you could jump about with the same ease as the grasshopper, you could spring over the tallest building without much effort.

Or, again, if you wanted to be more like as strong as the bee, you would have to drag after you a load weighing 4,000 pounds.

It seems, apparently, from such observations made by naturalists, that the greater in size the animal, the greater is the muscular energy needed to move it about, and that there is not much left for outside force.

## BEARD SEVEN FEET LONG



R. D. Carr of Cleburne, Tex., boasts of having the longest beard in the world. It is seven feet in length, and when he stands on a footstool it touches the floor. Mr. Carr is very proud of his beard and has refused offers to travel with shows that would have made him a fortune. He prefers to remain with his children on his farm.

Mr. Carr is sixty-nine years old, a Methodist and a Democrat. He hates all sham and does not like to be joked regarding his beard, which started growing eleven years ago, when Mr. Carr was ill. He carries it tucked into his vest and wrapped around his body and exhibits it only on state occasions.

## DEATH GERMS IN A MUD PIE

A bacteriologist recently found his little son making mud pies in a sand pile in a park reserved for children. Curiosity led him to make an examination of one of the pies and in it he found the following dangerous germs: Diphtheria, 1,800,000; measles, 2,450,000; smallpox, 900,000; dysentery, 600,000; pneumonia, 505,000; tuberculosis, 630,000.

## MANAGEMENT OF SOIL IN ORCHARDS



By Maintaining the Fertility of the Orchard Soil Your Trees Are Due to Bear a Heavy Crop of Fruit. An Apple Orchard in Bloom Last Spring That Yielded This Fall a Wonderful Crop. Care of the Soil Helped in This Instance.

(By W. MILTON KELLEY)

The problem of securing the fertility already in the soil is a matter which we should carefully consider before we apply commercial plant foods and manures to our orchard soils.

On soils which contain a reasonable amount of available plant food and which have been brought to a good physical condition, the need of applying manures and commercial fertilizers will be reduced to a minimum until the trees have attained a size and age when their roots occupy practically all of the soil.

How to prepare the soil so that the roots may go deep into the soil after mineral plant food, and so that the surface roots may reach out into the surface soil until they interlock with the roots of adjoining trees is the question for us to consider. First of all, the soil must be well drained and prepared sufficiently deep so that the roots may reach deep into the subsoil. Second, the surface soil must be cultivated frequently and a rotation of cover crops and catch crops employed so that a sufficient amount of plant food will be made available to promote a rapid and healthy growth rather than forcing the growth of the trees by the use of manures and fertilizers rich in nitrogen.

In some instances, the soil may be deficient in plant food and the intelligent use of mineral plant foods will prove very beneficial to the young trees.

It is when the orchards begin to bear large crops of fruit that the demands for plant food must be met. If profitable crops of fruit are secured. At this time the roots of the trees have taken possession of practically all of the soil and have utilized the larger part of the available plant food, so that the addition of some form of manure or fertilizer is essential.

The function of the soil in furnishing the tree with plant food is an exceedingly complex one, and there are certain well defined laws that must be kept in mind for the improvement and maintenance of the fertility of the soil that is occupied by the trees. Some fruit growers do not cultivate and others depend upon clean cultivation and the liberal use of manures and fertilizers, others grow cover crops and use mineral fertilizers as a means of maintaining the fertility of their orchard soils.

The fact that no two soils require the same line of treatment has caused a confusion of ideas in the management of orchard soils. In advising the matter in its various phases, I have arrived at the conclusion that the best line of management consists of a system of clean cultivation, the use of cover and grass crops and the use of an incomplete fertilizer, the whole line of management to be governed by the growth of the trees and the year they are due to bear a heavy crop of fruit.

In adopting any system of soil management for the orchard, it is imperative that we select the one which possesses as many of the good points and eliminates in a large degree all of the undesirable ones and exhausts the least fertility from the soil, and which will need the least possible amount of purchased fertilizers, and at the same time maintain the tree and fruit in a thrifty and healthy condition.

When we consider any method for maintaining the fertility of orchard soils, there are three classes of relations that must be given consideration, both separately and also in their relations to each other—the physical, the chemical and the biological condition of the soil. These three relations are so closely connected and so much dependent upon each other that it is a difficult matter for us to decide where one begins and the other leaves off, so I will consider them together and show how it is possible to adopt a system where all three may be maintained and improved by the use of a limited amount of mineral fertilizers and the use of a well-planned system of legume crops for maintaining the supply of humus and nitrogen, and the use of fertilizers to encourage

the legumes in the work of gathering nitrogen and plant food, and the employment of a grass or cover crop to protect the fruit from the mud during years when the trees are due to produce a large crop of fruit.

The physical condition of the soil is very important, but if we consider it alone we will gain increased crops for a few years, but in the end will exhaust our soil and the crops of fruit will become smaller and more imperfect until we will be compelled to use large amounts of manure or fertilizer. It is always more profitable for us to maintain the fertility of the orchard than to skin off the fruit and then try and bring it back to a condition where it will produce profitable crops of fruit. To successfully maintain the physical condition of the soil we must supply it with an abundance of humus forming material and give it good tillage. The biological condition of the soil deals with the soil organisms that work for us in making the substances of the soil into a condition available to nourish the growing plants. Without them the soil would not be in a condition to furnish the plants with nitrogen and the growth of the tree would be practically arrested. These soil organisms require for their best development suitable temperature, air movement and an abundance of moisture, some base for their products to combine with and some food.

When we discuss the chemical conditions of the soil many orchard owners think we are discussing something mysterious, and jump at the conclusion that the subject is one which they cannot understand. The first law of chemistry is that we cannot make something out of nothing, and that we are the loser every time we try to get a crop of fruit from a soil which is deficient in available plant food. The trees must have food from the soil before they can produce fruit. Now, after discussing these three relations, let us discuss the methods best adapted to maintain them separately, and also in their relations to each other, so that we may feed our trees and fruit in the most efficient and economical manner possible.

Plowing under green foliage adds humus and improves the texture of the soil, assists in conserving moisture and prevents soil washing. The amount of plant food which is made available depends largely upon the carbonic acid produced by the decomposition of the vegetable tissue, and the roots and organic matter. Thus the humus we have a substance that assists in the liberation of mineral as well as of nitrogenous plant food, besides improving the physical condition of the soil.

All plants will make humus, but when we employ legumes we are enabled to increase the nitrogen content of the soil, for these plants have the power of obtaining their nitrogen from the atmosphere and depositing it in the soil in a form available for succeeding crops of fruit and wood. Thus, when legumes are grown to increase the supply of humus and nitrogen, it is not necessary to use high-priced complete fertilizers. Nitrogen is the most expensive element of fertility, and the air is a much cheaper source than the fertilizer works.

In many respects cultivation and cover crops resemble each other in their general effect upon the store of plant food in the soil. It is made more available by tillage, while cover crops and tillage together will accomplish all that tillage possibly can, and at the same time improve all three of its important conditions, besides adding large quantities of nitrogen for future use. Cover crops will also prevent soil washing and hold the leaves until they may be plowed under. Have you ever noticed how a clump of grass will hold leaves from blowing away? The saving of leaves is nature's method of maintaining fertility for the tree.

While the trees are making too heavy a growth of wood it is often best to use some other crop and omit the legume for a season or more.

## Pain in Back and Rheumatism

are the daily torment of thousands. To effectually cure these troubles you must remove the cause. Foley Kidney Pills begin to work for you from the first dose, and exert so direct and beneficial an action in the kidneys and bladder that the pain and torment of kidney trouble soon disappears.

## Your Liver Is Clogged Up

That's Why You're Tired—Out of Sorts—Have No Appetite.

CARTER'S LITTLE LIVER PILLS will put you right in a few days. They do their duty. Cure Constipation, Biliousness, Indigestion and Sick Headache. SMALL PILL, SMALL DOSE, SMALL PRICE. Genuine must bear Signature.

*Ben Wood*

Petite Eye Salve TONIC FOR EYES  
RAW FURS  
J. L. GLEED, DEPT. S. E. A. BAKA, N. Y.

## MAN HE WAS LOOKING FOR

Mr. Cutlets Could Give Steady Job to Applicant With Such Qualification.

Mr. Underdone Cutlets, proprietor of the Spedy cafe, was notoriously hard-hearted. The most weeping widow who ever graced a melodrama couldn't have won a slice of stale bread out of his restaurant without the price. So, when a pale and timorous bum approached the desk and made a faltering appeal, it was no surprise to the lunch fiends to hear a curt "Nothing doing. Beat it." "I'm not a beggar," retorted the hungry man. "I'm willing to scrub floors or wash dishes. I'm just out of prison and nobody will give me work 'cause I'm starving." The proprietor portrayed a faint interest. "What were you in for?" he asked idly. "I'll tell you the truth," explained the ex-convict. "I was a kind of a counterfeiter. I used to take a \$100 bill and split it in two with a razor. Then, I'd paste the halves together, so I'd have two centuries, if the sucker didn't look on both sides. It took 'em five years to catch me." Mr. Cutlets beckoned the ex-prisoner behind the bar. "Order what you like on the steady," he whispered. "I've got a steady job for you. I'll give you thirty a week, slice the ham for my sandwiches."—Lippincott's.

Maid Had Helped.  
Young Van Winkle waited nervously in the parlor for Julia to appear. He had been sitting there, twiddling his thumbs, for half an hour. Finally a step was heard in the hall and he rose to his feet expectantly.

But it was not Julia. It was her maid.

"Marie," called the impatient young man, "what keeps your mistress so long? Is she making up her mind whether she'll see me or not?" "No, sir," answered the maid with a wise smirk. "It isn't her mind she's making up."

## He Kept his Seat.

The suffragette was speaking. "I'll bet there ain't a man in this audience who hasn't done anything around the house for his wife. If there is a man in this room that ever made the fire, milked the cow, cleaned the windows and made the beds every day without a flick I'd like to see him, that's all."

But she forgot her husband was at the meeting. And he didn't dare stand up!

Members of parliament in Belgium receive \$55 a month while parliament is sitting.

## Toasted to a Golden Brown!

Sounds "smacking good," doesn't it?

That's

## Post Toasties

Tender thin bits of the best parts of Indian Corn, perfectly cooked at the factory, and ready to eat direct from the package—fresh, crisp and clean.

There's a delicate sweetness about "Toasties" that make them the favorite flaked cereal at thousands of breakfast tables daily.

Post Toasties with cream and a sprinkling of sugar—

Delicious

Wholesome

Easy to serve

Sold by Grocers everywhere