

To Obtain the Finest

uncolored green tea procurable
buy

"SALADA"

GREEN TEA

Superior to the best Japans. Try it today.

How Earthquakes Are Measured

The awful cataclysm that plunged the Japanese Empire into mourning has roused scientists all over the world in their endeavors to foretell, with some degree of accuracy, the coming of great earthquakes.

These terrible volcanic upheavals are already recorded, and tabulated by amazingly delicate instruments, but all the devices possessed by science have not yet been able to predict when and where the overwhelming forces of Nature will next break loose.

Seismology, or the science of earthquakes, is one of the oldest of known sciences, for when the Romans were subduing ancient Britain the Chinese completed an instrument designed to record the shocks that so constantly harass the Eastern Empire.

This took the form of a copper sphere, about twenty-five feet round, with a long pillar at the top which was suspended so that it could swing in any one of eight directions.

The sphere contained eight dragon heads. In the mouth of each was placed a ball, so that when the pillar was moved by any trembling of the earth it would knock a ball down, thus showing in which direction the earthquake had occurred.

The first British seismograph was simply a basin full of treacle. When the earth shook the treacle moved, and left a mark on the side of the basin that indicated from which direction the shock had come.

The instruments are much more complicated now, and shocks can be corrected and measured in observatories fully 10,000 miles away from the scene of the disturbance by means of the sensitive Milne-Shaw seismograph.

This consists of an upright column supporting without friction a horizon-

tal boom which sways according to the earth tremors. A needle at the end of the boom is slit to allow a spot of light to fall upon sensitized paper, and this shows a straight line when the instrument is at rest. When there is any movement, however, the light shows it, and a clockwork attachment records the exact time of each "tremble."

The place of origin of the shock is located by the time taken for the shock to be recorded, for there are three types of earth "waves," which rush outwards at varying speeds. The observer knows that if, say, 166 seconds elaps between the first and second shocks, the earthquake is 1,000 miles distant, and so on.

By means of records taken at two or three different points, it is possible to determine almost exactly where the trouble lies and the area over which it operates.

At the West Bromwich Observatory in England about 4,000 distinct shocks are recorded every year, although, of course, nearly all of these are very slight, most of them being the result of disturbances beneath the ocean bed.

According to the most up-to-date authorities, earthquakes are caused by the solid outer "crust" of the earth gradually "creeping" northward. This movement, however slow, causes an enormous strain in places, and when the strain becomes too great the earth cracks.

In order to increase their knowledge of earthquakes, some of the world's greatest scientists have experimented with artificial explosions in mines, and they hope that in time they will be able to warn the inhabitants of volcanic districts when disturbances are likely to occur.

STORIES OF WELL-KNOWN PEOPLE

She's a Grandmother Bachelor.

The record does not state whether or not the feat of the elder and censorious Cato in learning Greek at 80 had anything to do with spurring her ambition. At any rate, after Mrs. Sarah Shoemaker Farley of Swarthmore, Pa., had seen her three sons and a daughter through college on a widow's moderate means she decided it was her own turn to join the rah rah ranks, even if she had passed the fifty year milestone.

So she matriculated at Pennsylvania State College and when the diplomas were passed around recently Mrs. Farley found herself possessor of the degree of bachelor of science.

All of the new made bachelor's children are married and between them have made her the proud proprietor of an even dozen grandchildren.

During her student days Mrs. Farley was affectionately known to her fellow undergraduates as "Mother Farley." So her resemblance to the fussy old Roman who 200 years before Christ was fighting for laws regulating women's dress and calling in and out of season for the destruction of Carthage seems to have begun and ended with the retention of a thirst for knowledge at an age when the minds of most people have crystallized and set in their final form.

Famous Ear Specialist to Treat Spanish Prince.

The congenital disease—deafness—which has impaired the health of Don Jaime, second son of King Alfonso of Spain, is soon to be treated by Dr. Curtis H. Muncie, of Brooklyn, N.Y., who is widely known as a specialist on afflictions of the ear. Dr. Muncie has just sailed for Europe with the admission that he is going to treat a "well known case of deafness, given up by many specialists of Europe." It has been learned that this "well known" patient is none other than Don Jaime.

Until he was 9 years of age the young son of King Alfonso was unable to speak, but it was later found that this condition was brought about by his deafness. He has been taught lip reading and now converses fluently by

that method. He is not the heir to the throne, the Crown Prince being the Prince of the Asturias.

Dr. Muncie has also accepted invitations to demonstrate his new method of "manipulative surgery" or "reconstruction of the eustachian tube" before leading medical associations in Paris, Glasgow and London. He uses no instruments in his treatment of the deaf, merely molding and shaping the tube which leads from the inner ear to the nose.

Office-Boy to Millionaire.

Lord Jolcey, who celebrated recently the "diamond jubilee" of his entrance as office-boy into the firm which he still controls, probably owns more coal-mines than any other individual in the United Kingdom. The foremost items on his escutcheon are a couple of pickaxes and two ponies.

Born in the atmosphere of collieries and brickyards at Tanfield, Durham, seventy-six years ago, he grew up as a boy in the "black environment."

His father, who worked in a Tyne-side colliery, was a man of foresight and shrewd common sense. He saw the future of the engineering side of mining, and his son benefited by his advice and instruction.

The future Lord Jolcey saved every penny he could while learning all he could. Out of two pounds a week he saved enough to enable him to make his first mining investments.

Six Men to Carry Dad's Salary Every Week.

Colonel Shatford, of Montreal, addressing the 26th District Rotary at Toronto, pointed his morals with apt anecdotes. Here is one of them that will go without adding to the moral.

Three small boys were sitting on a fence bragging of their deeds. The one said his father was a wonderful money maker, why he was a lawyer and could write out what they called a brief and in a few hours make hundreds of dollars.

The second said that his father could pull out teeth, put them in and plug them, and charge fees as high as he liked, and still the customers would be glad to pay them.

But the third was a clergyman's son. "Why, it takes six men to carry dad's wages up to him every week," said the parson's heir.

An Oily Nut.

Guatemala produces a nut whose oil content is 65 per cent.

FRAGRANCES THAT FAIL

Scent in the world of flowers is something of which very little is known. Formerly, it was regarded as one of the constant elements in flower life, and, being taken as a matter of course, was ignored. Now we are not so sure if it is a constant element, and are paying more attention to it.

All ancient nations who attained to civilization were addicted to the use of perfumes, not merely as luxuries, but also for purposes of religious ceremonial, especially in the solemn rites of burial.

Myrrh and frankincense doubtless emit to-day the same odor as they did thousands of years ago. Myrrh odorata still bears the umbels of fragrant white flowers; the gum resin of frankincense continues to exude from the pines of Somaliland.

World's Most Delicious Scent.

Then, too, the rose-fields of the village of Adrianople, extending over many thousand acres of land, yield to-day a seemingly inexhaustible supply of attar of roses. These vast gardens, full of life and fragrance, with hundreds of Bulgarian boys and girls gathering the flowers into baskets and sacks, have for years presented the same animated activity.

Here it is that the world's stock of a most delicious scent is procured amid scenes enlivened by songs, dancing, and music. The essential oil is extracted from the petals by the ordinary process of distillation.

The attar is bought up for foreign markets, to which it passes through Constantinople and Smyrna, whence it is generally dispatched to undergo a process of adulteration with sandalwood and other oils. In British markets the attar finds a ready sale when "blended" than in the pure state.

The most remarkable feature in connection with this rose culture is the unchanging character of the resulting perfume.

Such constancy, however, is not exclusive to the subtle perfume of attar of roses, or to myrrh and frankincense. The whole range of the hedgerow, with its honeysuckle and sweet-briar; the meadow, with its balm and dog violet; the garden, with its wallflower and carnation, all produce perfumes absolute in their constancy.

Banished by the Hybridiser.

For countless years it has been so. The floral world has emitted its varied odors true to type. Neither soil, culture, nor climate seem to affect these distinctive perfumes. Tropical plants, when housed in Great Britain under favorable conditions, impregnate the atmosphere with the same, heavy, seductive odor as they give forth in the stifling swamps of Africa.

A break in continuity of scent has occurred in some cases, however, causing the doubt as to its constancy, referred to in the beginning of this article. Where the hybridiser has been busy, there, very frequently, scent has fled. One cannot play fast and loose with Nature's laws, and the beauty of color and symmetry of structure we admire in the new creations of horticulture have been purchased at the cost of the fragrance which still clings to the petals of their humbler relatives.

Many who purchase roses to-day are astonished to find they produce scentless blooms. Their progenitors emitted the same delightful odor as those in the rose-fields of Adrianople, but the meddling hand of man has sealed up their scent cells.

A still more striking example of the fugitive nature of flower perfume is provided by the case of musk. Twenty-five years ago no English garden was considered complete without a bushy growth of this sweet smelling plant.

Perfumes of the Past.

It was grown, not for its beauty of foliage, and not for its attractive blooms; it was essentially a scent flower. A sprig of musk was picked on Sunday, wrapped in my lady's handkerchief, and thus she was perfumed. The lord of the manor's last duty before setting out for church was to place a few leaves in his hat.

In many old churches this "musky smell" became an almost essential part of the service. The regrettable fact must be recorded, however, that musk to-day is scentless, and the plant is no better than many wayside weeds.

No one can give a satisfactory solution as to where the scent has gone. The hand of the hybridiser cannot be charged with the crime, for in this form of plant-life there is little scope for his work.

Prior to this, indeed, it had been apparent to lovers of Nature that some subtle change was taking place in this plant, and that its fragrance was gradually becoming less. We must just write the change down as one of the unexplained mysteries of plant-life.

There may, of course, be a few plants still retaining the musk odor. If there be such, the owner could, if he cared, secure a ready market for cuttings.

Australia's Wonder Bridge.

In about six years' time Australia will possess in the bridge to be built across Sydney Harbor one of the greatest engineering marvels in the world.

The total cost of this vast structure, for which contracts are shortly to be allotted, will be about seven million pounds, nearly half of which will be expended in wages. The new bridge will eliminate the slow-working ferry now in use, and will bear four lines of railway, beside a 57ft. roadway with broad pavements.

Australians have dreamed of this undertaking for many years, and there has been much discussion as to what form the bridge should take, the possibilities of floating and suspension structures being considered. Finally, a high-level bridge has been decided upon.

For pure grandeur, this great construction is expected to eclipse the world-famous Forth and Quebec bridges, for although its span of 1,600 ft. is slightly shorter than either of these, it will be considerably higher above the water than they are.

The approaches to the bridge were commenced some time ago by Australian firms, but they found it impossible to carry out the whole undertaking, and tenders were invited from engineering concerns all over the world.

There are few great difficulties to be overcome in the construction, as the granite piers which will support the bridge will have solid rock foundations on both sides of the harbor, thus making the venture less speculative than has been the case with other large bridge-building contracts.

Minard's Liniment for Dandruff.

Foes of Memory.

Scientists have discovered that the memory is stronger in summer than in winter. Among the worst foes of the memory are too much food, too much physical exercise, and strangely, too much education.

A Powerful Beak.

Macaws, a kind of parrot, native to South America, can break with their beaks nuts which resist attacks with a hammer.

A literary critic is a person who finds meanings in a book that the author never knew were there.

Holland Bulbs

Have a beautiful Window Garden in the depth of winter at a small cost. Royal Collection, 7 Beautiful Assorted Bulbs, postpaid, 50c. Royal Collection of 15 selected Bulbs, postpaid, \$1. Free illustrated list.

C. E. BISHOP & SON, Seedsmen
Belleville, Ont.

REEDS

Write us for prices on highest grade. Basket Reeds—Also Frames and Tray Boards.

Brantford Willow Works
Brantford, Ont.

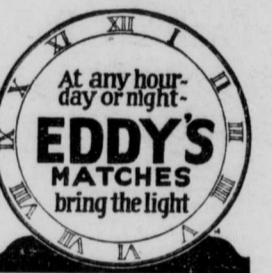
WRIGLEYS



Take it home to the kids
Have a packet in your pocket for an over-ready treat.

After Every Meal

A delicious confection and an aid to the teeth, appetite, digestion.



It Stays on the Job.

You can bank on a "444" Day after day, month after month Smarts 444! Ace will stand the going where the going is hardest.

Get your hardware man to show you a "444" Note the hang and the feel of it—A real axe with a fireblued finish that resists rust.



CANADA FOUNDRIES & FORGINGS LIMITED

Mustard is valuable in the diet

Did you know that mustard not only gives more zest and flavor to meats, but also stimulates your digestion? Because it aids assimilation it adds nourishment to foods.

but it must be Keen's ...

Come to the Lectures, Demonstrations and Practices at the

Ontario Agricultural College

1924 — SHORT COURSES — 1924

Stock and Seed Judging — (Two weeks) — January 21st - 19th.
Poultry Raising — (Four Weeks) — January 8th - February 2nd.
Horticulture Courses:
Fruit and Vegetable Growing — January 21st - February 2nd.
Floriculture and Landscape Gardening — Feb. 4th - Feb. 16th.
Dairy Courses:
Course for Factory Cheese and Buttermakers — January 2nd - March 14th.
Cow-Testing — Jan. 7th - Jan. 19th.
Farm Dairy — Jan. 21st - Feb. 2nd.
Factory Milk and Cream Testing, including Factory Management and Accounts — Feb. 4 - Feb. 16.
Market Milk, including Mechanical Refrigeration — Feb. 18 - March 1.
Condensed and Powdered Milk — March 3rd - March 15th.
Ice Cream, including Mechanical Refrigeration — March 17 - Mar 28.
Creamery and Cheesemaking Course, including Mechanical Refrigeration — Mar. 24 - Mar. 28.
Bee Keeping (Two Weeks) — January 8th - January 19th.
Drainage and Drainage Surveying (Two Weeks) — Jan. 8 - Jan. 19.
Farm Power, including Tractors, Gasoline Engines, etc. Two Weeks — Jan. 22 - Feb. 2.

These courses are planned to meet the requirements of farmers, farmers' sons, dairymen, poultrymen, bee-keepers and horticulturists who may be able to leave home for but a short period during the winter months.

All courses are free, with the exception of the dairy courses, for which a small registration fee is charged.

A change from the home surroundings, meeting other people interested in the thing in which you are interested, exchange of experience and the acquisition of knowledge, will do you good. Plan to attend some course that appeals to you. Reduced rates on railways. Write for booklet describing the courses and ask for railway certificate.

J. B. REYNOLDS, M.A. L. STEVENSON A. M. PORTER, B.S.A.
President Director of Extension Registrar