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A faint, circular library stamp is visible in the lower half of the page. The text within the stamp is mostly illegible due to fading, but it appears to contain the words "UNIVERSITY OF" at the top and "LIBRARY" at the bottom, with some numbers in the center.

THE SCIENCE NEWS-LETTER

A Weekly Summary of Current Science

EDITED BY WATSON DAVIS

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No. 91

Saturday, January 6, 1923

PRACTICING COUE

By June E. Downey, Ph.D.,
Professor of Psychology,
University of Wyoming.

Now-a-nights when I begin to slip into that pleasant drowsiness called by psychologists twilight consciousness I no longer find myself automatically reciting Poe's "Raven" - long a favorite nightcap of mine. Other words come to my lips unbidden. You know them! They have been flashed into your consciousness as into mine as you pass the bookstores in your daily peregrinations.

"Day by day in every way I am getting better and better." I chant the words but I hope not too loudly. I prefer to surprise my neighbor by the beneficent changes in myself, rather than inform him of them in advance.

When, occasionally, I try Coue on a head or heart ache I follow directions very faithfully and say "It's going, going, going, going" so fast that neither my critical self nor my sense of humor can get a word in edgewise. And the cooing sound I produce is certainly as distracting as counting twenty before speaking when angry. The sibilancy of the French, "Il passe" is even more diverting.

But a sense of humor is a bad preparation for practicing Coueism. Think of the vision it can conjure up of bed-brigades, heads on pillows, murmuring "Every day" etc.! Meanwhile slipping the string of twenty knots between relaxed fingers.

I could wish the Doctor had advised a bona fide rosary or even suggested that you say your Coue twice over on your fingers and thumbs, - which don't get mislaid easily. A friend of mine uses this primitive adding machine in her nightly chat with herself and considers it as effective a method as that of the much knotted string. And perhaps it is!

But what, after all, is the significance of all this? I don't just know! The notion of self-mastery is a most appealing one, and this self-mastery is, it would seem, not achieved by strenuous effort and desperate "willing". Relaxation, imagination, and suggestions whispered gently to the self may be more effective. Self-mastery is very much a matter of getting control over the organic functions of the body, indirectly, by means of idea and emotion. The technique advised by Coue has much in its favor.

Bodily secretions are greatly affected by the emotions, as we are all aware. Fear and anger, love and grief can cause all manner of chemical reactions in the inner organs of the body, reactions that can in some cases be measured and stated

in exact formulas. And the circumstances and ideas that become associated with the outbursts of fear and rage, love and grief can in their turn upset the delicate bodily chemistry. The toys of Little Boy Blue bring tears to the eyes; mistletoe a smile to the lips. The sentimentalist converts all the objects of her environment into love souvenirs or mementoes of grief. Control of emotional associations is therefore advisable.

Obsessing ideas can also do queer things. You can't orate or act or sing if you think you can't. It may even be true that you can't hear or see or walk because you think you can't. The cases of hysteria - where healing by suggestion has won its famous victories - teach us so much.

But how about the converse? Can you because you think you can? Make speeches, sing songs, hear well, see far? Auto-suggestion, says Coue, can give you control over yourself within reason. Within reason, aye, there's the rub!

Nothing could be of greater value to a sick and discouraged world than a vigorous experimental campaign by physiologists and psychologists to determine just what auto-suggestion can do and what not. There's something here that needs investigation of the most painstaking kind, to balance if possible the emotional obsession of some of us by thoughts of germs, diets, complexes, etc. etc. Science must provide an antidote for science.

It can do no harm to practice Coue if one also avails oneself of all the discoveries of modern science and if one does not during his waking hours succumb to day-dreaming. Practicing Coue will frequently prove good doctoring and it may turn out that it is also based in large measure on good doctrine.

READING REFERENCE- Coue, E. Self Mastery Through Auto-Suggestion. N.Y. American Library Service. Collins, J. Coueism. North American, 216:190-9 Aug. 1922. Eyre, Mary B. Psychology and mental hygiene for nurses. N.Y. Macmillan, 1922. Brooks, C. A. The Practice of Auto-Suggestion. N.Y. Dodd, Mead & Co., 1922.

FIT CAR TO DRIVER URGES MIND EXPERT

Nation-wide standardized mental tests for auto drivers to determine the kind of machine each individual shall be permitted to run. The plan for cutting down our alarming motor-car accident toll urged by Dr. Raymond Dodge, chairman of the division of psychology of the National Research Council.

"All persons are not equally suited to driving a car," he says. "One man in an emergency gets and acts on an idea quickly, another slowly. The time that elapses after a danger is seen until the driver can start the movement that is required to avoid it is an important factor in safety. Slow and uncertain or wavering actions are undoubtedly the occasion of many accidents. This slowness is in part due to lack of practice and training and in part due to the natural tendencies of the individual. Both of these factors can be made matters of test."

"The natural speed with which a person acts, his 'reaction time' can be easily measured and the relative ability of chauffeurs in this respect could be determined," Dr. Dodge explains. "The time that it takes for a signal to reach the eye, be transmitted to the brain, and for the brain to send its order down through the nerves of the arm seems instantaneous, but it can be measured by the reaction time

test used in our psychological laboratories every day. A person is seated at a table with his finger on a telegraph key. As soon as he sees a given signal he presses the key. When the signal flashes, the electric current also starts a pointer marking off the fractions of a second upon a dial. When the key is pressed the current is broken and the hand on the dial stops moving. This gives a record of the time that it took the person to get and act upon the idea."

"Tests for driving ability," he continues, "should be varied according to the sort of tasks which the drivers are called upon to perform. Tests for drivers of light, pleasure vehicles might be very different from tests for drivers of fast ambulances and fire appliances, and they in turn might be quite different from tests for drivers of heavy motor trucks. High powered fast machines obviously should not be entrusted to poor or relatively untrained chauffeurs. A specific form of test for various types of machines is good common sense and good science.

"In addition to tests for mechanical expertness, knowledge of traffic regulations and automobile limitations should also be required."

Jailing reckless drivers and requiring speeders to view accident victims in the morgue are haphazard methods, Dr. Dodge declares. Licenses to drive should not be issued to persons with such tendencies to motor manslaughter. It is perfectly possible that the psychologists will be able to work out tests to determine the moral tendencies and regard for common interests of applicants for driver's licenses.

"Careful analysis and expert thoroughgoing experimental investigation of these and other problems involving the mental processes of those who use the highways should be made," Dr. Dodge emphasizes. "When there has been a systematic exploration of the human factor in traffic, tests can be standardized.

"It is notorious that tests for drivers in one community are entirely different from tests in other communities. Licenses from different localities are quite incomparable in value. It is obvious that the same ability to drive is not required on a country road as in the city, but if the farmer is to drive into town, he must be able to handle his machine under city traffic conditions or else not allowed to come in. Standard tests would help remedy this situation.

Even now we should have a national blacklist for chauffeurs so that those who have forfeited their licenses on account of bad driving in one state cannot go over into another state and continue their homicidal practices."

READING REFERENCE- Givler, R. C. Psychology: the science of human behavior. N.Y. Harper, 1922. Ginsberg, Morris. Psychology of society. N.Y. Dutton, 1922.

A fruit breakfast food with a taste similar to cereal breakfast foods, is being made from dehydrated apples, heated under a vacuum and roasted to a crisp condition.

The colleges of this country have expended on each engineering graduate from \$800 to \$2,000 above all fees received.

(A Chat on Science)

EARLY RISERS

By Dr. Edwin E. Slosson

The youngest man to receive a Nobel award is Dr. Nils Bohr of Copenhagen who this month is awarded the prize for the greatest discovery in physics. He is only thirty-seven now and he was only twenty-eight when he startled the world by his bold conception of the atom as a sort of solar system in which the sun is represented by a nucleus of positive electricity and the planets by particles of negative electricity revolving around it with amazing speed. On this theory he was able to calculate just what shiftings in the orbits of these planetary electrons would give off light of the particular wave-length to make each line of the spectrum.

But it was man even younger who in the same eventful year, 1913, made a still greater contribution to our knowledge of the interior of the atom. Henry Moseley, the Englishman, was only twenty-six when he found a way to analyze the elements by the reflection of X-rays from their atoms. This led him to "the most important generalization in the history of chemistry since Mendeleef's Periodic Law", the idea that the chemical properties of an element depend upon the number of free charges of positive electricity upon its nucleus. This shows us that there are ninety-two possible elements between hydrogen, the lightest, and uranium, the heaviest, and they are now all known but four.

Two years later young Moseley was killed at Gallipoli and the premature extinction of his brilliant brain was one of the greatest losses of the Great War, a loss that no territorial gains can compensate, and it was, as we now know, a useless sacrifice for Gallipoli has gone back to the Turks. "Some one had blundered."

In the history of science we often observe that epoch-making ideas have sprung from the brains of young men. Svante Arrhenius, the Swede, was only twenty-four when he devised the electrolytic theory of solution, the idea that salts are decomposed in water to positive and negative parts. Kekule, the German, was twenty-eight when he hit upon the theory of types, which led him, at the age of thirty-six, to the symbol of the benzene ring. Berthelot, the Frenchman, was only twenty-four when he began his career in what he called "creative chemistry" by the synthesis of benzene compounds. William Crookes, the Englishman, was twenty-nine when he discovered thallium by the spectroscope, a new metal by a new method. Emil Fischer, the German, was twenty-three when he discovered the hydrazine reaction that led to the analysis and synthesis of the sugars. Perkin, the Englishman, was eighteen when he discovered the first aniline dye, mauve. Pasteur, the Frenchman, was twenty when he became intrigued with the puzzle of the right and left-handed crystals of tartaric acid which six years later he solved by making the inactive racemic acid by combining the two forms.

Twenty years later the explanation of this phenomenon burst simultaneously in the brains of two young men, the Frenchman, Le Bel, and the Dutchman, Van't Hoff. The former was twenty-seven and the latter was twenty-two. Van't Hoff was still a student when he published his eleven-page pamphlet on "The Structure of the Atoms in Space", and how he did get laughed at by his elders for his crazy notion.

Albert Einstein conceived the idea of his theory of relativity when he was eighteen and published it at twenty-six. He is, as we should expect, an advocate of shortening up the school period and making it more practical, so that the student can get at his life work earlier. This at least seems the best plan for bril-

liant minds like these and educators are coming to the conclusion that special facilities should be afforded such so they can advance as fast as they can without waiting on their slower schoolmates. To give one young man of this sort the peculiar training he needs will benefit the world more than the education of a whole collegeful of the ordinary caliber.

O. W. Holmes used to say of infant prodigies that those who get up so early in the morning are apt to be very conceited all the forenoon and very sleepy all the afternoon. But this does not seem to apply to the cases we have here considered.

READING REFERENCE- Harrow, B. Eminent chemists of our time. N.Y. Van Nostrand, 1920.

NEWS OF THE STARS

Winter Now Here

By Isabel M. Lewis,
of U.S. Naval Observatory.

Most of us feel that winter sets in when the mercury takes its first decided drop below the freezing point, when the first snow flies. We feel that it is well on its way by Christmas time. But the astronomer figures it out quite differently.

Winter begins in the northern hemisphere when the sun reaches its greatest southern declination or, in other words, its greatest distance south of the equator. This time does not vary from year to year by more than a few hours and it falls generally on December 22 or 23. This year the sun reaches its most southern point and winter begins on December 22 8:57 a.m. Central Standard Time. After that moment has passed the sun turns imperceptibly northward. Spring will begin when it crosses the equator once more in March.

The day on which winter begins is also the shortest day of the year. The sun rises on this day at the farthest point south of east, sets at the farthest point south of west and crosses the meridian at its lowest altitude above the south point of the horizon. Its diurnal arc, therefore, which is the path that it traces across the heavens from its rising to its setting is on this day the shortest for the year. The sun's altitude above the horizon at noon on this day for any latitude is equal to ninety degrees less the latitude of the place less twenty-three and a half degrees. In forty degrees north latitude, for example, the altitude of the sun at noon on this day is twenty-six and a half degrees which is its lowest altitude for any day of the year.

Were we at the arctic circle on this day we should see the sun at the south point of the horizon at noon but for the remainder of the day it would be below the horizon. Refraction would elevate it, however, and give a very brief period of sunlight, that would otherwise be lacking. There would be a long twilight period as the sun skirted along the southern horizon at midday just below the range of vision.

The beginning of winter in the northern hemisphere is also the beginning of summer in the southern hemisphere and on this day the sun passes through the zenith or directly overhead in $23\frac{1}{2}$ degrees south latitude and at the south pole makes a

complete circuit of the heavens in twenty-four hours at a practically unvarying altitude of twenty-three and a half degrees above the horizon. After this date it begins to wend its way slowly and almost imperceptibly downward along a spiral curve toward the horizon which it reaches at the beginning of spring in March.

After the beginning of winter in our mid-northern latitudes the sun's diurnal arc increases in length gradually as the sun turns northward. The sun rises each day a little farther to the north, crosses the meridian at a little higher altitude and sets a little farther to the north. At the beginning of spring in March when it crosses the equator it will rise due east and set due west and day and night will be equal in length.

DISCOVER CHICKEN IS BOTH ROOSTER AND HEN

A rooster that laid eggs or a hen that drowed - whichever one wishes to call it - has been studied by Dr. Carl G. Hartman and William F. Hamilton of the University of Texas who showed that its hermaphroditic characteristics were caused by the presence of the sex glands of both the male and female. This peculiar bird which was a Rhode Island Red exhibited its male character by its enormous wattles, and by a rooster-like crow, although of a somewhat lower pitch. It often called the hens for imaginary bits of food and it was fought by the other roosters.

The female traits were shown in several ways, the scientists observed. On one occasion this strange fowl laid a small elongated egg although it was never seen sitting on a nest. Twice it adopted broods of incubator chicks and cared for them day and night. Its feathering was like that of an ordinary hen and it clucked and sang like one.

By examination after death, it was found that this bird had the sex glands of both the male and female. This offers additional proof, Dr. Hartmann believes, that the secondary sex characters are determined by some chemical substance, called by physiologists a "hormone", which is secreted into the blood by these glands. A number of years ago Dr. E. Steinach of Vienna showed that when the sex organs were removed from a young male by operation and those of a female grafted under the skin this animal developed feminine characteristics. He concluded that the common minor traits that differentiate sex are governed by a secretion into the blood by the sex glands.

READING REFERENCE: Harrow, B. Glands in health and disease. N. Y. Dutton, 1922. Cunningham, J. T. Hormones and heredity. N. Y. Macmillan, 1922.

An international competition with an annual prize for the best paper on some subject of a technical nature in the science of aeronautics is being conducted by the Royal Aeronautical Society of London.

Over an area of 1,165,000 acres the loss due to the western pine beetle has amounted to ten percent of the pine stand in the last ten years, or a total of 1,200,000,000 board feet valued at more than \$3,600,000.

WIND BLOWS BIRDS INTO NEW HABITS

Life habits of noddy terns on Bird Key have been changed by a hurricane which swept the West Indies two years ago. Dr. Paul Bartsch of the U. S. National Museum believes the ultimate effect of this big blow will be the sweeping of these species entirely out of the United States.

Tremendous tropical storms destroyed the trees and bushes in which these terns were accustomed to build their nests. Since the disaster they have built their nests upon the ground, but the denuded island does not furnish the shade necessary for the young birds. There are now only 800 pair where there were previously over 4,000 pair, Dr. Bartsch said, and it is most probable that this species will become extinct on Bird Key. As Bird Key is their only rookery in the United States, the effect of the wind two years ago will be to take these birds away from this country.

SACK SKIM-MILK FOR PIG FOOD

Milk is being sacked today to be stored indefinitely for use as a stock feed, K. L. Hatch, of the Experiment Station of the Wisconsin College of Agriculture, has developed a new process for utilizing hitherto wasted skim-milk and a jury composed of 60 pigs has been called upon to decide the success of his experiments.

The new process consists of concentrating the skim-milk in the big vacuum pans of the ordinary condensery. About a 5 to 1 condensation is secured. In this concentrated form, the skim-milk is then mixed with absorbent grains. After the grains have completely absorbed the milk, they are dried in an air current and can be sacked and stored for any length of time. In this form this creamery by-product can be shipped to all parts of the country without changing the food value in any way, Mr. Hatch claims.

It is estimated that thousands of gallons of skim-milk have been dumped into barnyards in the dairy country, because of inability to store it in concentrated form and the necessity of feeding it within twenty-four hours or before it soured.

The new dried milk feed is directly due to agitation started when the Wisconsin legislature passed the "filled milk" bill prohibiting the sale of skim-milk to which a vegetable oil had been added in place of the butterfat. The "filled-milk" advocates argued that they were making use of a product that would otherwise be wasted.

Scarcity and high cost of sugar in Germany has greatly increased the demand for honey in that country.

The United States had 50 per cent more coal mines and 200,000 more coal miners than would be needed if the industry were not seasonal.

A banquet of exclusively Alaskan products will be served to Washington State editors in January.

India is gradually going into the flour business. Already at La Hore, Amritsar and Karachi small mills are in operation.

RAPS SHEEP HERDERS FOR GOAT SLAUGHTER

Wanton killing of antelope by European sheep herders in many sections of the west threatens the extinction of this distinctively American animal, Smith Riley, administrator of bird and game reservations of the U. S. Department of Agriculture, charged in an address before the Ninth National Game Conference. As a remedy, he urged the immediate establishment of large Federal or state game refuges.

"The sheep herders," he said, "desire the range of the antelope for their flocks. Fearing that the government will set aside large areas of land as antelope refuges, they are killing off the animals in order to prevent such action by removing the cause for it."

There is ample room for both antelope and sheep, he stated.

ARMS LIMITATION URGED FOR ESKIMO

The diplomats overlooked the Eskimo at the Arms Limitation Conference. Harold Noice, Arctic explorer, in a plea for the protection of the musk-ox made before the Ninth National Game Conference urged that the arms and ammunition furnished Nanook and his people be limited.

"Eskimos," he said, "kill and keep on killing as long as they have ammunition. They take no thought of the perpetuation of the game left to furnish them with food and clothing in the years to come. I have seen Eskimos kill quantities of seal, when they knew it would be impossible for them to recover the animals that they were shooting. One of the results of this utter disregard for the future, is that the musk-ox is now nearing extinction."

Mr. Noice accompanied Stefansson on several of his trips to the far north.

MIXED BLOOD INDIANS RANK HIGH IN INTELLIGENCE

Mixed blooded children in the U. S. Indian Schools of the Southwest surpass in intelligence those who are true Indians, psychological tests made by Prof. T.R. Grath of the University of Texas show. He reports that Mexican children rank next to the mixed bloods, and that among the full bloods, the rank is: Plains and Southeastern Indians, Plateau Indians, and Navajos and Apaches. The tests were made on children from twelve to nineteen years old.

PLAN STANDARDIZED RADIO RECEIVERS

You will be able to buy a standardized, rated and tested radio set if the conference called by the Bureau of Standards to meet in New York, Jan. 12, is successful. Representatives from technical organizations and manufacturers interested in radio will discuss methods of standardizing radio receivers in a manner similar to fire extinguishers, automobile tires and other products.

LIGHTSHIPS AT SEA BENEFIT BY RADIO

America's outermost posts, the lightships that are anchored miles off the Atlantic, Gulf and Pacific coasts will be kept in constant touch with Washington by radio, it was announced in the annual report of the Lighthouse Service. Shipping will be better guarded as a result. Music and entertainment received by radio will minimize the isolation of these signal stations.

FIGHT COTTON WEEVILS BY NIPPING IN BUDS

By nipping the pest in the buds, the Florida State Plant Board has worked out a new and cheaper way to stop the tremendous ravages of the cotton boll weevil, the University of Florida experiment station has announced. This method has proved successful under the climatic conditions prevailing in this state and it is expected that it will also prove effective in other sections of the South.

The squares or unblown buds of the cotton plant are removed after the weevil has come out of his winter quarters in May or early June and the tips of the plant are sprayed with calcium arsenate poison. In this way, the entomologists claim, an acre of cotton can be protected against the damaging insect at a cost of \$2 as compared with a cost of \$4 per acre for the repeated sprayings throughout the season.

The effectiveness of the Florida system, experts at the station said, lies in the fact that the boll weevil goes for the squares first. By cutting off these early buds this menace is removed. The next most important point of attack is the tip of the plant. By directing the poison spray against these tips, the weevils not nipped in the buds are destroyed.

In this way five pounds of the poison is made to do the work of twenty pounds under the system of repeated spraying in vogue in other sections of the South. Just what effect the longer time taken by the weevils to come out of hibernation in such states as Louisiana will have on the application of this new method there is not yet known. The new system is claimed to be of special value to the small farmer who is not equipped for extensive spraying by means of aeroplane and other devices suited for large acreage.

READING REFERENCE: Hunter, W. D. & Coad, B. R. Boll weevil problem. Washington, Govt. print. off. 1922. (U. S. Dept. of Agriculture. Farmers bulletin 1262.)
Knapp, B. Production of cotton under boll weevil conditions. Arkansas Agric. Experiment Station. Circular. 128:1-12. 1922.

NEW GLIDER RECORD

M. Maneyrolle, French airman, beat the German glider record of three hours and ten minutes by staying aloft for three hours and twenty-two minutes. Flying at Lewes, England, Oct. 21, he won the prize of one thousand pounds offered by the London Daily Mail. His machine was a tandem monoplane. The Algerian government has offered 30,000 francs for prizes in a motorless gliding contest to take place at Biskra, Algeria, in January.

LONDON SCHOOLS TUNE IN ON RADIO

Radio instruction will be given in twenty-five elementary schools of London if the recommendation of the London Elementary Education Sub-Committee is adopted. Permission has already been given to thirteen schools to include wireless principles in the curricula and boys in these schools are making the receiving sets which will be used.

BRITISH GOVERNMENT TO BEGIN BROADCASTING

The Postmaster-General, under whose authority telephone and wireless communication in England is placed, has announced that radio broadcasting will be begun soon. The service is under the control of a broadcasting company acting under the Post Office Department. No one is permitted to receive except those who have government licenses and no license is issued except to those operating British-made receiving sets. It is claimed that the delay in starting broadcasting services will insure the starting of this new form of communication on sound lines. That Great Britain is also catching up in wired telephony is indicated by the statement of the Postmaster General that "there is unmistakable evidence that private individuals are acquiring the telephone habit".

HUNDRED TO RADIO ACROSS OCEAN

At least a hundred American amateur radio operators will participate in the trans-Atlantic tests to be held in December, according to the American Radio Relay League which has already received qualifications of over fifty as a result of preliminary tests. Two American stations, 2HJ, Harold Hasbrouck, Port Chester, N. Y. and 2ZK, George Cannon, New Rochelle, N. Y. were heard by the English amateurs, although it was only necessary to be heard 1200 miles to participate in the final tests.

HAWAIIAN AMATEUR AIMS AT BRITISH RADIOS

C. J. Dow, owner and operator of radio 6ZAC at Wailuku, Hawaii, has entered the trans-Atlantic amateur radio tests and he believes he has a splendid chance of getting over. If he succeeds, he will establish a world's record for amateur radio. The distance from Hawaii to England by way of the great circle is approximately 7,500 miles. 6ZAC has established communication with Pacific Coast amateurs and his signals have been copied at Irvington, N. J., and several other places near the Atlantic Coast.

POTATO WEEVIL ATTACKS; BUT SCIENCE COUNTERS

A new potato weevil invaded the fields of southern Mississippi unseen this spring and started doing damage before the farmers realized that their crops were being attacked. But this pest was soon identified, not in the fields but in a laboratory in Washington.

Dr. L. O. Howard, chief of the U. S. Bureau of Entomology, explains to the Louisiana Entomological Society that this new weevil was positively identified, its probable country of origin learned and past experience in its control was studied before field information was at all adequate. The collectors and systematists intent on classifying the insect gave the earliest practical information on the kind of warfare that should be waged against it.

PYTHIAN KNIGHTS TO FIGHT LEPROSY

One dollar from each of the Knights of Pythias, \$1,000,000 in all, has been donated by the Supreme Lodge of that order for benefit work among the lepers of Cullion Island and to carry on the search for an absolute cure for that dread disease. Part of this fund will be used in the erection of a fully equipped experimental laboratory.

ANCIENT TONGUE INTRODUCED WITH FRUIT

Words from a language which flourished centuries before Columbus are being used for names of varieties of the fruit, avocado or "alligator pear", which is relatively new to this country.

The U. S. Department of Agriculture has introduced Mayan names along with this salad-making fruit that its experts have brought from Guatemala, where centuries ago an ancient civilization flourished.

Some folkd seeing certain kinds of "alligator pears" tagged "Itzamna", "Lamat", "Hunapuh", "Kayab", "Mayapan" and others equally strange, may have thought that the government has enlisted the services of the namer of Pullman cars. It has just been explained by the Department that these names are taken from the Maya who built up in what are now the wilds of Guatemala great cities and a powerful agricultural civilization hundreds of years before Columbus ever left the old world.

The avocado called "Itzamna" is named after the chief Mayan god, the creator of mankind and the father of all the other gods. Such names as "Lamat" and "Hunapuh" designated days in the wonderful calendar of these ancient people, who had invented a system of chronology more accurate than the time systems of the Europeans of their time. "Mayapan", the name given to another variety of this salad fruit, was one of the important cities of this people. It means "place where there are Mayas".

READING REFERENCE: Fairchild, D. Exploring for avocados. Am. fruit journal 41:30. March 1921. Popenoe, W. Avocado in Guatemala. Washington, Govt. print. off. 1919. (U. S. Dept. of Agriculture Bulletin 743: 1-69.).

FRENCH AMATEUR RADIO IMPROVED FOR TESTS

So that he may have a better chance of competing successfully in the trans-Atlantic radio tests to be held between America and Europe this month, Monsieur Leon Deloy of Nice, France, radio call 8AB, is replacing his smaller C.W. set with one of 1 k.w. rating, 3 new towers and an entirely new antenna and ground system. He is probably the foremost French amateur today and got much of his training in America during the war when he was assigned for duty to the Naval Communications Office in Washington with Lieut. Paternot of the French army.

ADVOCATE AMATEUR RADIO QUIET PERIOD

In order to prevent friction between the amateur radio enthusiasts and novices who wish to listen to entertainment, the American Radio Relay League has decided to advocate a "quiet" period from 7 p.m. until 10:30 p.m. each evening in thickly congested districts where transmission might possibly cause interference. Radio amateurs would stand by in order to give the novice listeners every opportunity to enjoy the entertainment.

"This action" say officials of the League, "is one of cooperation in giving the novice listener the best part of the evening and in return we shall expect to be able to transmit any time outside of these hours without complaint from the novices. These new-comers have a hard time realizing that the amateurs were in the game long before they were and are licensed by the federal government to transmit any time they desire. We hope by this action to bring to their attention the fact that while the amateurs are only too glad to help them when possible, on the other hand we absolutely stand upon our rights and the League will back this to the limit of its resources."

TABLOID BOOK REVIEW

THE POPULATION OF THE VALLEY OF TEOTIHUACÁN: By Manuel Gamio, Director of Anthropology, Secretaria de Agricultura y Fomento, Filomeno Mata, 4, Mexico, D.F. 1922. (In Spanish.)

An exhaustive study of the Valley of Teotihuacán, State of Mexico, forming parts of the districts of Otumba and Texcoco, also comprising the municipalities of San Juan Teotihuacán, San Martín de las Pirámides and Acolman, for the acquisition of knowledge referring to racial characteristics, material and intellectual culture, language and dialects, economic situation, environmental and biological conditions of regional populations of the present and past in Mexico.

This work, in three large volumes profusely illustrated with color plates, was undertaken by the Department of Anthropology of which Dr. Manuel Gamio is the Director.

ARCHEOLOGICAL INVESTIGATIONS: By Gerard Fewke. Bulletin 76 of the Bureau of American Ethnology, Smithsonian Institution, Washington Government Printing Office.

To those who are interested in the traces left on this continent by inhabitants before the time of Columbus, this report of investigations made largely in the middle west will be interesting. Even the layman may gain an appreciation of what life must have been in those days and what labor and pains must be taken today to reveal the record that is written only in the uncertain debris of caves and the remains in cairns.

MENTAL CAUSES OF ACCIDENTS. By Boyd Fisher. Houghton Mifflin Company, The Riverside Press, Cambridge, Mass. \$2.50.

Mr. Fisher has made a most timely and important contribution to the study of accident prevention. He points out the inadequacy of shot-gun prescriptions against mishaps and shows that many accidents are the result of mental errors on the part of victims. The various types of these errors are analyzed from a sound psychological standpoint. Although the author deals principally with the human factor in industrial accidents, much of his work is equally applicable to the motor dangers on our streets.