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New Things Not Found in Any Books.

Why YOU SHOULD LIVE 200 YEARS

By EUGENE CHRISTIAN, F.S.D.

Nearly all specimens of animal life on this globe, except man, live, under normal conditions, about eight times the period of their maturity, or that time it takes them to attain full growth. A horse, dog or cow, that will obtain its growth in four years, will live about thirty-two years. This rule applies especially to all anthropoidal and quadruped specimens.

Man matures, or gets his growth, at about twenty-four years of age. Measured, therefore, by the scale of all other animals, he ought to live eight times twenty-four years of age. Measured, therefore, by the scale governing the life of all other animals, he ought to live eight times twenty-four, or about two hundred years; but reckoning from the age of six, man dies at a fraction over forty, which, on this reckoning, is about one-fifth his natural period of longevity, while, if we take into our calculations children under six, including the infant class, it brings man's period of longevity in all civilized countries down to about thirty-seven years.

Man drinks the same water and lives under the same sunshine as his brother animals. He differs from them mainly in his food, quantity of fresh air and exercise, which are the three fundamental laws governing all forms of life. It is fair to assume that man is no exception to the general rule governing all other animals,

Man the Only Animal That Does Not Live Eight Times Its PERIOD OF MATURITY

and that if he did not commit some very grave error in maintaining life he would live his normal period of years, as probably did his very ancient ancestors.

Man has vastly increased the productivity of labor by invention, and the productivity of the soil by the science of agriculture. He has almost conquered the air and carried the transportation of intelligence (talking through the air) to its seeming limit; but he has forgotten himself; in fact, just to the extent he has progressed in all of the other sciences he has retrogressed in the science of preserving his own health and life.

Man is entitled by inheritance to live two hundred years. Science, therefore, can boast only when it has carried him beyond this period.

The difference between youth and age is, in fact, only a chemical difference. The difference between the stiff and flexible cartilage, the hard and soft artery, the normal and irritated nerve, the rich hemoglobin (red) and thin blood, the black and white hair, are only chemical differences. They represent deposits—things, taken into the body in which some way and for some reason the body is unable to cast out. If man had studied man, his construction and maintenance, and made of it a true science—if he had given as much thought to the human body and its preservation as he has to other branches of science, these chemical differences would have been known, their causes removed, and man would today be in possession of his birthright, which is a normal life period of two hundred years; or if he had carried the science of physiological chemistry and food chemistry to the same degree of development that he has many other branches of science, no doubt he would be able to prolong his life far beyond the normal period.

The three fundamental laws governing all forms of life are nutrition (food), motion (exercise) and oxidation (common air).

The most important of these is food. Fresh air is

1913

Baby born this year

— is —

Full grown in

1937

— He —

should live eight times as long as it takes to grow up (8 x 24 = 192) — or until —

2105

easy to get, and breathing is automatic, and if the body is properly fed exercise will also be automatic; but feeding the human animal is guesswork, done at hazard. He is gulped purely by his taste. His taste is warped and perverted. He has forced into his body a thousand things that it did not need and could not use, that has changed hunger into appetite, that has poisoned his blood and produced exhilaration, dethroned his reason and enthroned perniculous habits. He has eaten other animals, quadrupeds, bipeds, insects, and all sorts of cold creeping things. In other words, he has waited until these animals have collected a few food elements from very questionable sources and built up their bodies, and then he has attempted to preserve his own life by stealing his nutrition from other animals. He has secured food second hand, after it had been collected by and passed into the body of another animal.

The human body is composed of fifteen well-defined chemical elements.

That person enjoys the best health, the keenest mentality and powers of perception, the highest mental, physical and emotional organism who can select and feed upon such articles as will supply all these constituent parts of the body most nearly in the right or natural proportions.

All of the body elements can be found in the vegetable world in their purest form. It requires, therefore, but little knowledge to enable man to select food from such articles as will supply all these elements in approximately the right proportions; but to this important matter he gives practically no thought.

Every housewife, especially every mother, should understand something about the chemistry of the body and its needs, and also understand about food chemistry, which tells how to supply these needs.

No intelligent mother would give her child or husband medicine compounded by a druggist that knew nothing about the chemistry and action of drugs; yet

most mothers are putting a prescription of food upon their tables three times a day without any knowledge whatever of the chemistry of foods or the demands of the family.

It is much easier to accept things as they are than to analyze them and show their faults. Thus the great mass of people move on, eating what is set before them or what is listed on bills of fare, without knowledge or concern.

Dr. J. H. Mason Knox, an eminent authority on children's diseases, said in a public lecture in Washington not long ago that 300,000 children under two years of age die every year in the United States of curable diseases. Dr. Knox further asserted that the number of deaths among children from careless feeding is twice that from tuberculosis and about one-third the number from all so-called virulent diseases combined. Practically every one of these lives could be saved by correct feeding.

Coal and the X-Ray

It is now believed that the mystery of the formation and constitution of coal, which has long puzzled students, will be solved by means of the X-ray.

According to a French scientific journal, there are two or three kinds of ash in coal: First, the foreign matter carried by the wind or the rain into the forests that gave rise to the coal. Next there is the mineral matter that forms part of living plants. Finally, there is generally more or less mineral matter due to the formation of new compounds by the decomposition of the first two kinds of ash. The examination of coal with the X-rays will probably lead to a possible distinction between these three forms of ash, and will thus contribute to throw light on the formation of veins.

Why Live OSTRICH FEATHERS Are Never Pulled

A very small proportion of our ostrich feathers come from the wild birds nowadays. Twenty years ago there were but few ostrich farms and the great majority of ostrich feathers came from wild birds which were killed by the feather hunters in South Africa.

Of course, after the ostriches were killed the feathers were pulled out, but now that the ostrich farms thrive and the birds are stripped of their plumage feathers and turned loose to grow more, greater care has to be taken.

The white ostrich feathers are not fully developed. There are also black and drab feathers on the same bird, but when the white feathers are fully developed they lose a great deal of their whiteness, and in the olden days had to be bleached.

Now the ostriches are blindfolded with a hood on the farms and led into a sort of crate-like coop, where the black and drab feathers are carefully pulled out; but the white feathers are never pulled out, as this

would so damage the great sockets in which the large quills grow that no more would be forthcoming, so the quills of the white feathers are carefully cut off and the quills allowed to remain for several months, when they come out naturally and the new feathers start.

Therefore, practically every genuine unbleached white ostrich feather does not have a complete quill when it is shipped in the rough. The people who prepare these feathers for the markets, however, remedy this easily by adding the end of other quills in so clever a manner that it is scarcely discernible.

Fifty years ago there were only eighty-two tame ostriches known in all South Africa. And in that year only sixteen pounds of feathers were exported, and they came for the most part from wild birds brought down by the hunters. Last year there were about 800,000 domesticated ostriches in South Africa, nearly 900,000 pounds of feathers were exported at a value of more than a million and a quarter dollars.

In a similar way the adulterant which is frequently used to give weight to tea can be detected by placing a sample on a piece of white paper under the microscope.

Find Out If Your Tea Is Pure

MISS ALBERTA READ, of the Bureau of Chemistry, in Washington, is a woman whose health should be drunk at every tea table in America. As Uncle Sam's official tea tester, it is her duty to guard the country against the importation and the selling of adulterated tea.

One of Miss Read's recent achievements is the discovery of two simple ways of detecting the presence of adulterants. One of these

ways is to place a sample of tea on a piece of black paper. With the aid of a microscope one can readily tell whether the tea contains talc, which is often sprinkled on the leaves by unscrupulous dealers to give them a hard, shiny appearance.

In a similar way the adulterant which is frequently used to give weight to tea can be detected by placing a sample on a piece of white paper under the microscope.

YOU MIGHT TRY...

FOR NAILING HARDWOOD.

BEFORE attempting to drive a nail through hard wood or where it might split the wood push it through a thin cake of soap. You will then find that it will go through quite easily.

FROSTING WINDOW GLASS.

TO frost a bathroom window make a very strong solution of Epsom salts and vinegar. Apply it with a brush, and afterward go over it with some white varnish.

IMPROVING SHINY CLOTH.

TO improve shiny serge or cloth lay it flat on the table and pass a piece of fine sandpaper very gently over the shiny part. The sandpaper will roughen up the nap again, but be careful not to rub too hard, as it may wear a hole in your material.

CLEANING IVORY.

IN cleaning ivory knife handles rub them well with half a lemon dipped in salt. This will make them beautifully white. After this treatment they should be well washed in cold water and thoroughly dried.

PEPPER FOR MICE.

CAYENNE pepper is excellent as a means of ridding a cupboard of mice. The floor should be gone over carefully and each hole stopped up with a piece of rag dipped in water and then in Cayenne pepper.

FOR OIL PAINTINGS.

AWASHED and peeled potato, cut in half, can be used to clean oil paintings. The surface should then be wiped with a damp cloth, rubbed with dry cotton wool, and finally polished with a silk handkerchief.

IF YOUR SHOE PINCHES

IF a shoe pinches in one place put a drop of sweet oil on the stocking just where the pinch comes, and also apply a drop to the outside of the boot at the same place. The oil softens the leather, and helps it to stretch.

Where LITTLE SCHOLARS Are Started on Their LIFE WORK

PRACTICALLY no attempt is made in the public schools in this country to sort out the boys and girls and start them in whatever occupation seems best fitted for them. That remains for later training, of for the great god "Chance," which is responsible for so many thousands of occupations that young people enter into.

But in Switzerland, the greatest of care is taken to note just what a youngster seems best fitted for, just what he likes best and also what he is best adapted for. The old rule that a man will generally succeed in any sort of business or work that he actually likes holds good in Switzerland, where the teachers will put some boys into wood carving and not waste too much of their time with a higher education, while other boys will be educated along mechanical, or theological, or scientific lines, as they seem best adapted for.

The school teachers in Switzerland are more than 90 per cent men, and they do not fit about from city to city and school to school as they seem to do in a certain measure in this country. When a man becomes a school teacher in Switzerland he is generally a teacher for life.

The pay of these school teachers does not seem large, but when everything is considered it will be seen that he is probably doing better than the average school teacher in this country, which is not saying so very much, considering the small pay teachers receive here.

A Swiss school teacher gets \$500, on an average, for his year's salary. Some get as high as \$700, or even \$800, but such salaries are rare and generally in wealthy communities or large cities—that is, large cities for that little country up among the Alps.

But it should be remembered that this is not all a Swiss school teacher gets, he is always furnished with a good comfortable home to live in and all the fuel he needs, which, in that cold country, means a great deal. In addition to this, he has a good-sized garden plot, where he can grow much of his food. And then the school teacher in a Swiss village is an important personage, one who ranks along with the Mayor, and the clergyman, and the doctor. He is the intellectual part of the community, and very frequently he picks up \$100 extra each year serving as secretary of various associations, creamery companies, loan associations, carving-selling concerns and the like. At the same time he is probably the leader of the village choir, bandmaster, head of the cemetery association and active in many such branches.

Such a school teacher gets his home and soon settles down for life, raising a family and living honored and beloved all his days, frequently teaching four generations of children in his life time. One teacher taught his school without a break for sixty-five years, one had held the position for twenty years, and his father had taught that same school before him for thirty-five years. Such a teacher gets to know the children and their parents and their grandparents, and finally such a teacher is pretty well qualified to help direct his students in the walks of life they seem best fitted for. The Swiss children are excellent scholars, and it is rare indeed that are not rapidly promoted. After four years of elementary training the children proceed into schools that are carefully divided for the various types of children. Some get a technical training, some few are prepared for the university and some for various forms of business life, both the boys and the girls.

Why You Should Always SAVE PUMPKIN and SQUASH SEEDS

MILLIONS of rats and mice infest our cities and towns, as well as every rural section, and it has been a problem how to rid the country of the expensive pest.

All sorts of traps have been invented, and many schemes devised, and the pests have been caught and killed in vast numbers, but the right way does not seem to have gone into general use.

There is something in a pumpkin or squash seed that will attract the rats and mice more than any other known substance, and the solution to the problem of eradicating the great pest is to use the seed from squashes and pumpkins for bait for all kinds of traps

devised for catching both rats and mice. The little animals will go anywhere for one of these seeds. They are naturally suspicious of traps, and are often smart enough to keep out of even the most simple traps, but when traps are baited with pumpkin or squash seeds they will risk anything and enter or investigate any form of a trap.

If properly used, every seed is worth its weight in gold. They will draw the entire rat and mouse population to one point, and they will not leave without an attempt to secure their desired sweets, and, if properly managed, the entire lot can be captured.

Do away with all forms of poison and try this remedy.

Why BRIGHT CHILDREN Are Often THOUGHT to be DULL

THERE are a great many bright school children who are unfortunate enough to be classed by their teachers as rather dull and stupid when in reality they are quite as bright as any other youngster, and this is due to the fact that they are slightly deaf.

Their deafness is so slight that the teacher does not discover it, and cannot be expected to discover it under normal conditions; even their faces do not show that they are deaf, as is the case with those whose deafness is quite pronounced.

But these slightly deaf children do not catch all that is said, they do not quite get the benefit of all that is read or spoken in the class, and so they do not learn these things. Then when the time comes, they cannot repeat the lesson and they are held to be dull.

At the sixth congress of the American School Hygiene Association Dr. Helen Macmurchy, of Toronto, read a most interesting and instructive paper upon this subject, in which she pointed out all these things

and declared that it was frequently possible to recognize such slightly deaf children by extremely careful examination.

There is no doubt, but that children who are slightly deaf, but whose condition is not such that their teachers recognize it, are greatly handicapped by the failure of others to know this and take the proper steps. The child in this condition has no means of knowing that his hearing is not normal.

In a perfectly quiet room, says Dr. Macmurchy, the average normal hearing distance for a whisper is twenty-five feet. A child that can hear a whisper at five yards will not lose much education because of this, but they may lose a little, especially if seated at the back of a big school room, and no child should lose any opportunity to learn. Children who can hear a whisper at a distance of only from three to five yards should always be given seats in the front row in the school, and those who can hear a whisper at only from one to three yards need special help and

training and should be placed in small classes with a teacher who purposely speaks distinctly and slowly and with a careful lip movement, as they need to study the lip movement as well as the normal studies.

These are simple and practical tests of hearing and should be made by every teacher, also by all parents when it is known just how far away a child can hear a whisper; then it is known just what sort of training should be given the child, whether he is normal, or whether he should sit down front, or even go into a special class and take up lip reading along with other studies.

Children who are deaf from birth should be taught lip reading at as early an age as possible, which will help to overcome to a great extent his handicap of being a mute. Dr. Macmurchy summarizes the education of the deaf child as follows: (1) Teach the deaf child to speak. (2) Recognize the deaf child and secure his education. (3) Provide special teachers and special classes for the deaf child. (4) In large cities night classes for adults who are in danger of becoming deaf should be established in lip reading.

Making BABIES SLEEP Under Running WATER

IT has often been claimed that the sound of running water had the effect of lulling anyone to sleep, but in one part of the country the mothers go much further than this and make their babies sleep by letting a small stream of water flow directly on their little heads.

Such a means seems almost incredible, and one would think colds and other ailments would result that would kill the babies, but apparently this novel liquid lullaby has no harmful effects upon the native infants, and they lie sleeping for hours with a stream of water flowing directly upon the tops of their heads.

This is done by the native mothers in the vicinity of Simla, in India. There the women do a great deal

of field work and must leave their babies alone. Few of these women can afford caretakers, and they resort to what they consider the next best thing.

An example of this was noted a while ago when a new road was being built, and many mothers were employed in some of the work. There were little grooves or resting places along the line of the road that was under construction, and here were seen numbers of babies. Each resting place was selected because of a spring near at hand. The water from the spring was carefully directed to the place where the babies were lying. The babies were placed with their heads on a pillow of earth, and a stream of water directed to flow fairly against the top of the infant's head, and a trough was made for this water to run off in.

Anywhere from three to ten babies were thus lulled to sleep, depending upon the size of the spring and the quantity of water in the overflow. Each stream was about the size of one's finger, and made to run through a little wooden spout, to give force to the stream.

According to English officers, who reported this remarkable method of caring for babies, it was quite successful. Never were such quiet and well behaved babies found as those under the spouts of water. The native mothers laughed at the suggestion that such a thing would hurt their babies, and declared that, on the other hand, it tended to make them strong. In fact, some of the mothers declared that a child not brought up in this manner would be weak mentally as well as physically, as they believed the water pouring on the little heads actually strengthened their brains.

How We Got the Little Word "IF"

THE little word "if" is one of the most important words in the English language, and one about which there has been many a dispute as to the origin.

"If" is pretty well understood as meaning "on condition that," "when possible," but who invented it, and what was the original meaning of this little word?

More than a century ago an English scholar suggested that the word "if" was derived from the old Anglo-Saxon word Gavan, and that the imperative being "Gif," it was easily changed into "if," thus suggesting the original meaning to have been "Give that," or "granted that," or, as we say, "if."

For many years this derivation was generally

accepted, but as scholars began to study the old Anglo-Saxon and the kindred languages, it appeared that this derivation ignored the other languages altogether, and yet the idea existed and was expressed in the similar tongues. The latest research points to a derivation entirely different from that old-fashioned one which satisfied our forefathers. In Old Saxon the word was found spelled "Of," and it is only when we study the Old High German that we see the real origin of our word. There is the word "Iba," condition or stipulation, and the dative case of this word is "Ibi" or "Ipu," meaning "on condition," the precise meaning of our word "if" and evidently the correct ancestor of this common little word so often on our lips.