

TIME NEEDED IN THINKING.

Scientists Are Now Experimenting on This Interesting Subject.

Experiments regarding the time needed by the average man to think are now engaging the attention of scientists. Just how long does it take a man to think was the topic discussed by Professor Richet at a recent meeting of the British association. He gave the results of his investigations on the subject and made some interesting remarks upon them. Among other things he found that a man could think of the notes of the musical scale at the rate of eleven to the second. The experiment was performed by running the notes for one or more octaves and then dividing the total time by the total number of notes.

There are various ways of arriving at conclusions as to the amount of time necessary for realizing any physical sensation or mental impression. If the skin be touched repeatedly with light blows from a small hammer a person may, according to Professor Richet, distinguish the fact that the blows are separate and not continuous pressure when they follow one another as frequently as 1,000 a second.

The smallest intervals of sound can be much better distinguished with one ear than with both. Thus the separate-ness of the clicks of a revolving toothed wheel was noted by one observer when they did not exceed sixty to the second, but using both ears he could not distinguish them when they occurred not oftener than fifteen times a second. The sharp sound of the electric spark of an induction coil was distinguished with one ear when the rate was as high as 500 to the second. Sight is much less keen than hearing in distinguishing differences. If a disk half white and half black be revolved it will appear gray when its revolutions exceed twenty-four per second.

It has been found that we can hear far more rapidly than we can count, so that if a clock-clicking movement runs faster than ten to the second we can only count four clicks, while with twenty to the second we can only count two of them. Fatigue and want of nervous vigor has a marked effect in lengthening the shortest time that we can distinguish between different impressions. Alcohol acted, as might be expected, in making the subject of experiment not able to distinguish such minute intervals of time as he was able to do without it, and at the same time in making him believe that he was doing better than usual.

ATCHISON GLOBE SIGHTS.

When a man calls on an old girl, there is great excitement in the neighborhood until it is learned that he called to sell her a new brand of blueing, or on some other matter of business.

As soon as a man dies, his women folks recall that he had "favorite" hymns, which they ask to be sung at the funeral. This happens in many cases where the deceased would be greatly surprised at the discovery, if he knew of it.

The word "friendship" is abused almost as much as the word "love." Nearly every person seems to expect a great deal of love and friendship without giving anything in return, and makes a great fuss because of disappointment. Nearly all drafts on friendship are protested.

Every one fears that if he should become delirious, he would give away all his secrets, and trot out every skeleton in his private closet. Calm yourself. People who are delirious tell nothing they know. An Atchison man who was recently so near death that he heard Moses sing, heard constantly about his head being a Missouri Pacific freight house.

Then He Bought the Ring.

Fred—Suppose I should ask you to be my wife, what would you say?
Anna—Guess.
Fred—Oh, I haven't the least idea. What would it be—er—rime with?
Anna—Guess.

REGAINED HEALTH.

Gratifying Letters to Mrs. Pinkham From Happy Women.

"I Owe You My Life."

Mrs. E. WOOLMER, Mills, Neb., writes: "DEAR MRS. PINKHAM—I owe my life to your Vegetable Compound. The doctors said I had consumption and nothing could be done for me. My menstruation had stopped and they said my blood was turning to water. I had several doctors. They all said I could not live. I began the use of Lydia E. Pinkham's Vegetable Compound, and it helped me right away; menses returned and I have gained in weight. I have better health than I have had for years. It is wonderful what your Compound has done for me."

"I Feel Like a New Person."

Mrs. GEO. LEACH, 1609 Belle St., Alton, Ill., writes: "Before I began to take your Vegetable Compound I was a great sufferer from womb trouble. Menses would appear two and three times in a month, causing me to be so weak I could not stand. I could neither sleep or eat, and looked so badly my friends hardly knew me. "I took doctor's medicine but did not derive much benefit from it. My doctor gave me one of your little books, and after reading it I decided to try Lydia E. Pinkham's Vegetable Compound. I feel like a new person. I would not give you a compound for all the doctors' medicine in the world. I can not praise it enough."

FARM AND GARDEN NOTES.

ITEMS OF INTEREST ON AGRICULTURAL TOPICS.

Crushed Shells for Poultry—Lily of the Valley—The Dahlia Coming in Vogue Again—Etc., Etc.

CRUSHED SHELLS FOR POULTRY.

The avidity with which laying hens will eat crushed shells shows how necessary they are in the hen's economy for egg production. There is no better way to supply lime required for egg shells than this. The shells in the gizzard act as grit, enabling it to digest food. The only care in feeding is to crush the shell thoroughly, so that its likeness to the egg may not be seen. Where egg shells are thrown out without being crushed, the fowls soon learn the habit of picking at the shells on eggs, and from this they quickly become egg eaters, a habit which, when once formed, is never forgotten.

LILY OF THE VALLEY.

When the lily of the valley seems to have weak roots, as may be supposed in case the plant ceases to thrive, it is best to thin out the bed. If that does not do any good, it won't pay to trouble too long over the old roots; it will be better to start a new bed with new, strong roots. You must give them a rich but light soil, and pretty well shaded.

The same trouble is often found with narcissus. If planted too deep, that sometimes prevents free blooming. An inch depth is deep enough to plant the bulbs.—Floral World.

THE DAHLIA COMING IN VOGUE AGAIN.

The dahlia has proved the truth of the old saying that "all things come around to those who stand and wait." After years of neglect this once popular plant has been taken in hand by the florists, and now it looks as if we were to have a dahlia craze. The semi-double varieties will be more popular than the single sorts, because of the greater mass of color afforded by their larger flowers, and the old, very double type will be again in favor. Some of the new varieties are described as being wonderfully fine, especially a white kind called snowbird and a soft yellow variety named Mrs. Dutton, but there are so many listed as new that further special mention would be out of place, so I refrain therefrom.—Eben E. Rexford in Ladies' Home Journal.

DEFECTIVE SEEDING.

To a good farmer there is nothing more surely aggravating to him than to find a year after the seeding with grass or clover has been done, and when it is too late to mend the evil, that there are broad patches across the field where no clover was sown. This most often happens when grass and clover seed are sown by hand. It is impossible to sow timothy and clover seed together and have the seed distributed evenly. The timothy seed, being much lighter, will not carry so far from the hand, and is more likely to be blown about by winds. With the Cahoon grass seed sower we used to calculate to sow timothy seed 10 feet width across the field, while clover seed would be distributed 22 feet, so that the seed should be sown at separate times. To prevent failure to seed it is better to overlap a little. We early learned to pace with three feet steps. Five of these, or 15 feet for the timothy seed and seven paces or 21 feet for the clover seed, made a slight lap, but never in our experience left any strip unseeded. To have either grass or clover fall through lack of seeding is a positive injury to the land. Where the grass and clover falls, the vacant space will be filled with weeds.—American Cultivator.

GET RID OF HEDGES AND BARBED WIRE.

The frequent and pointed articles which are constantly being printed on this subject show that it is something like Banquo's ghost; it will not down, writes an Illinois subscriber. The fact is our fences are no small matter, and since the timber is gone we are confronted with a condition, not a theory. We must have fences and the investigation of the question involves quite a large investment. One Ohio publication and also a letter in your issue of Dec. 11, '97, recommend hedge fences, while in a recent issue of a Western farm paper five letters are published giving information on how to get rid of a hedge fence. I believe the hedge and barbed wire fences are the only ones which the people are willing to pay to get rid of. The hedge eats up the soil, requires so much labor every year to keep in order, dies out, steals wool off the sheep, takes five years to grow it and costs full more than a good woven wire fence. Barbed wire, on account of its being such a means of torture and mutilation, is not to be taken into consideration. Any number of plain horizontal wires that are stretched upon posts do not make a fence, unless they are tied together by cross wires or pickets close enough to prevent the wires being separated by stock. When wood slats or pickets are used, they cause the panels to sag, receive the full impetus of the wind and cause snow drifts. Does it not seem that really the only practicable fence to buy is a woven wire? Of course they cost considerable, but the sharp competition among the manufacturers brings the price down to the minimum. Six years ago I bought a lot advertised in your columns and it has proved satisfactory. It looks as well now as when first put up.—American Agriculturist.

THE SUFFOLK BREED OF HOGS.

We do not believe the Suffolk breed of hogs is a valuable one for this country, especially where the climate is cold in winter, or has scorching heat in summer, says the Boston Cultivator. It is an English breed, and was introduced into this country some 45 years ago, after Prince Albert had taken all the prizes with animals of this breed at English stock shows. It is a white-skinned breed with very little hair, and its thin skin turns red when exposed to the sun. In the moist, sunless climate of the south of England, where the winters are always warm, this is a good breed to grow. But breeds with more hair are better for this country. For a white hog the small Yorkshire and the Chester white are both preferable to the Suffolk. But for profitable hog growing either Essex for small or the Berkshires and Poland Chinas for large breeds are equally good to all who have no prejudice as to color. Black hogs are generally grown in the West, except as they are superseded by the Jersey Red, a large, coarse breed, with abundant coating of hair, and which stands sudden changes of climate, from hot to cold, better than any other. In breeding hogs, the best grades are procured by using large, long-bodied sows of Chester White, Berkshire or Poland China breeds and crossing them with the small Yorkshires on the white sows, or with Essex boars on the large breeds of black hogs. The vigor of constitution depends most on the dam. Fineness of bone and early maturity depend on the male parent of the progeny thus bred.

WORMS IN HOGS.

When a hog has kidney worms he will begin to get weak in the back; the hind part will wobble as the animal tries to walk. As the disease progresses the hind legs will give way and at last the animal will not be able to stand on its hind feet at all, but can only move by dragging them along on the ground. If let alone the animal will linger for quite a long time before death will relieve its sufferings. If taken in time turpentine will usually cure. Put a small quantity on the small of the back over the kidneys, and repeat for several days or until the animal is cured. Give a tablespoonful in milk once a day until cured.

As with many other things, it is easier to prevent than to cure, and one way of doing this is to keep a supply of salt and wood ashes in a box in a place where they can help themselves, and this will not only get rid of the worms but help materially to keep the hogs healthy.

In this connection we take the opportunity of saying to our correspondents and others that there are more affections than that of the kidney worm which will produce substantially the same symptoms as described, and hence the facts mentioned are not necessarily diagnostic of kidney worm.

We commend the final conclusions that preventive measures are more potent than curative ones for kidney worm, and the statements regarding the curative powers of his remedies are only wrong in the mistaken identity of the disease being treated.

Inactivity of the kidneys, deposit of ammonia salts in the bladder, weakness across the loins from injury or strain or other causes would act in the identical way described and the stimulation of turpentine across the back and loins over the region of the kidneys would act as a curative agent for these numerous ills without the presence of a kidney worm at all.

If one becomes acquainted with the anatomical construction of the kidney and surrounding parts and the mode of entrance into the kidney and the effects of its habitation there he will still be more willing to say "prevent by all means by ridding the system of the eggs and larvae which produce it before it has started on its way to the kidney."

The treatment given is not a bad one for numerous cases supposed to be kidney worm, and indeed can do no harm if it should prove to be no kidney worm.—N. J. Shepherd, in Farm, Field and Fireside.

SQUASH GROWING.

Mr. J. H. Gregory, the well-known seed grower, says in the New York Independent that himself and a neighbor were discussing the probable yield of a field of squashes he proposes to plant this year. The neighbor thought he should have a half dozen good squashes as an average to each vine.

He figures that with fifteen cords of manure and night soil to the acre he could have his hills eight by nine apart, and leave three vines to a hill. This would give a little over 600 hills, of 1,800 vines, and six squashes to the vine would be 10,800 squashes. Under such liberal manuring Hubbard squashes should average to weigh ten pounds each, which would be 54 tons per acre, or about four times as large a crop as he was ever able to raise under the most favorable conditions.

They were agreed that eight tons to the acre was a good yield for Hubbard squashes, and ten tons an extra yield, though from 12 to 14 tons had been known. A yield of one squash weighing ten pounds upon each vine would be about nine tons to the acre. Yet they had both known a half dozen or more good squashes, averaging at least ten pounds each, to grow upon a single vine, when it was isolated from the other vines.

The conclusion was that they usually allowed too many vines to grow upon an acre to produce the largest possible yields. But if the ground is not well covered with vines the weeds will soon grow up in the vacant spaces, and on each manuring grow so rank as to be almost shrubs, not only rob-

bing the soil of its fertility, but shading the ground to the injury of the squashes. There is also sometimes trouble when the squashes do not well cover the ground and interlace with one another, they will be blown about by high winds, twisting the runners, after which the squashes upon them do not amount to much.

He suggests as a remedy for this excess of plants and yet fairly covering the ground, having the hills nine feet apart each way, and having but two plants to the hill, which will give about 1,100 plants to the acre, well distributed. Another plan is to plant the seeds in drills eight feet apart and leave one plant to each five feet, which would give the same space, 40 square feet to a plant.

The writer has grown squashes in this way, after a crop of peas, putting the seed in five or six feet apart in every third row of peas, and the field was well covered with vines, and the yield a good one, though not estimated as to rate per acre.

Nature's Compass Signs.

The many different methods to determine the cardinal points while on the mountains, in both heavy timber and small bush, or upon the featureless expanse of a great marsh, are exceedingly numerous and reliable enough for all practical purposes during an every day life in the bush, unless a very long journey is to be made, which would require a number of days and would make it necessary to hold on a very fine point while making so long a distance.

We will first take note of the coniferous trees—pines, firs, spruce, cedars, hemlocks, etc. The bark of these is always lighter in color, harder and dryer on the south side of the tree; while it is in color much darker, is also damper and often covered with mold and moss on the north side. The gum that oozes out from the wounds, knotholes, etc., is usually hard and often of beautiful amber color on the south side, while on the northern side it remains sticky longer and gets covered with insects and dirt, seldom drying out to more than a dirty grey color.

On large trees that have rough bark especially during the fall and winter months, the nests and webs of insects, spiders, etc., will always be found in the crevices on the south side. A preponderance of the large branches will also be found on the warmest or southern side of the trees. Also the needles of all the above mentioned trees are shorter, dryer and of a yellowish green on the southern side, while they will be found longer, more slender and pliable on the north side. The cedars and hemlocks as if trying to outdo the others, always bend their slender tops of new growth toward a southern sky.

The hardwood trees are equally as communicative, and have all the characteristics, as far as regards their trunks, as the coniferous trees, except the absence of gums; but this is more than made up by the fungus growth of mold and mosses that is very noticeable on the north side of these trees.

The edges of rocks, which may be part of stupendous mountains, or merely occasional cropping out here and there in the woods, or, perhaps, some great boulder alone by itself a silent witness of the glacial period all alike testify to the effect of light and shade. The sunny side will usually be bare, or at most boast of a thin growth of harsh, dry kinds of mosses, that will only grow when having the light; while the northern side will be found damp and moldy, and often covered with a luxuriant growth of soft, damp mosses that love the shade, while every crevice will bear aloft beautiful and gracefully waving ferns.

The floor forest on the sunny side of hills, ridges, clumps of trees, bushes, big rocks, etc., is more noisy under the footfall than on the northern side of such places, where the dead leaves and litter are soft and damp, holding more moisture than in places exposed to the light of the sun.

In an open country nearly void of timber, clumps of small bushes during summer will furnish all the conditions found to exist among the leaves of the trees, being equally sensitive to light and shade as are the monarchs of the woods. The landscape green, with moving grasses and beautiful to the eye, which feasts on the countless numbers of wild flowers, representing every form and hue known in the flowery kingdom, also furnishes a reliable guide for locating the cardinal points, as most wild flowers, especially the long-stemmed varieties, hide their faces from the north, and, like the sunflower, turn toward a southern sky.

Sudanese War Schemes.

The Sudanese warriors are not without schemes, more or less effective, for killing their enemies. Their guns are not of the latest pattern and cannot deal death with the accuracy and rapidity of the rifles carried by the British soldier, but they more than even matters of warfare by their subtle trickery.

There is a highway, over which it was known the British soldiers would march toward the Sudanese strongholds. When "Tommy Atkins" turned into this road he cursed its roughness and prepared to be bored by a long and muddy tramp. Ten feet forward he was in the midst of a fierce battle, as if by magic black fighters sprang out of the ground. The earth was alive with Sudanese; the road became a hell of hot death and a dancing curtain of screaming, war-mad men of ebony. The British soldier had not counted on the ingenuity of native genius.—New York Journal.

Three cannon, formerly part of the armament of the British ship Acteon, wrecked in Charleston harbor on June 28, 1776, have been mounted in a park in St. Louis.

NOTES AND COMMENTS.

A special dispatch from New York says that the latest fad in the exclusive circles of Gotham society is "getting up family trees and tracing ancestry back as far as possible." But in the opinion of the editorial punster of the Chicago Times-Herald, some of those exclusive Gothamites probably will prefer to keep their family trees shady.

An Englishman named Bateman, who has been collecting statistics of the drink bill of various countries, reports the reassuring fact that the Americans are growing more temperate than any of the European nations. A writer in the Ladies' Home Journal says that one may meet as well-dressed women in Siberia as are to be found in any European city. The social forms that exist in the large cities of Russia are observed in Siberia, and the fashionable people of that vast province enjoy life to the full.

Thomas A. Edison confirms the statement, recently printed, that he has discovered a new process for extracting gold from the mines in the Orizaba land grant in New Mexico. He said the mines are believed to be the richest in Mexico, but the ore could not be successfully worked hitherto because of the absence of water. Some time ago the owners of the mines asked if he could not suggest some new process by which the ore could be worked. He began experimenting, and finally hit upon a way of working the ore without using a drop of water. Mr. Edison says that the agreement regarding his new methods will be closed in a few days, and that he is to receive \$1,500,000 if the system proves a success.

Says the Rochester (N. Y.) Herald: Truth in the ancestral business is being sadly overdone. Nearly every one has had more or less ancestors, and a mathematically inclined genealogist has figured that even a fellow who couldn't join anything but a church, has had during the past 25 generations no less than 45,476,862 ancestors, of whom 22,738,432 were living at the same time 25 generations back, and of the latter it is a reasonable certainty that at least one participated in the battle of Senlac either under Duke William or King Harold. Why not organize at once the Society of the Sons of Senlac, to whom all people shall be eligible upon proof of their being alive, and do away with these useless combinations of ideas that only go back a couple of hundred years?

Speaking of the visitors to the League Island Navy Yard, the Philadelphia Record says: "As a rule they are so impressed with the great size and imposing appearance of the Minneapolis and the Columbia that they invariably rate the cruisers above the monitor Miantonomoh in fighting capacity, whereas the cruisers would be easy prey for the heavily protected monitor if they came within range of her big guns. Most of the visitors are awed by the ugly looks of the old 15-inch smooth-bore guns and old-time mortars that have been stored at the navy yard ever since the war. They are very incredulous when told that there is more power for destruction in even the small 4-inch modern rifles which the vessels carry in their secondary batteries than in the most formidable looking of the obsolete smooth-bores which frown so threateningly along the bank of the river."

Sam Stone Bush estimates in the March American Monthly Review of Reviews that 100,000 people are expected to rush for the Klondike this spring. He is a prospector who has traveled and studied up the situation. Writing of what this exodus will mean to the business world Mr. Stone says: "I have figured it out on the basis of cost and proportion as ascertained, and it is this: That each man of them would average first and last an expenditure of \$900, making a grand total of \$90,000,000. The United States railroads would get \$5,000,000 of this; Seattle merchants and hotel keepers, for outfits and transient guests, \$25,000,000; the prospector's home town and towns en route to Seattle and other Pacific coast points, \$5,000,000; ship companies for transportation to Alaska, \$10,000,000, and for the transportation of freight over passes and in Alaska, \$15,000,000. This would represent only the actual needs of this many prospectors, and would cause a large increase in other businesses directly connected with it. It means that in 1898 \$90,000,000 will be spent in search of gold in the yellow creek, and in the same year not more than one-fourth of that amount will be produced. But the output is likely to come nearer the expense as each year goes by, and in a few years to exceed it."

A plan is afoot in New York to build one or more hotels for exclusive use of self-supporting women, Harper's Weekly says. The proposition is to organize a corporation to be known as the Woman's Hotel Company, with a capital of one million dollars, the corporation is to be formed when \$500,000 is subscribed. Then land is to be bought, and a hotel built to hold about a thousand boarders. Plans for such a hotel have been drawn, subject to change and subscription papers circulated. People who know about the self-supporting women of New York say that such a hotel as is planned is urgently needed and would be sure of patronage. Various authorities submit that there are 2,000 art students in town every year, 2,500 students of music, 2,000 trained nurses and medical students, and thousands of journalists, stenographers, physicians and other business and professional women. It is estimated that there are 40,000 self-supporting women in this city who could afford to live

at such a hotel as is planned. The minimum cost of board and lodging in it would be \$6 a week. It is computed that a hotel containing 825 rentable rooms (besides lodgings for its house staff) would pay, when full, a gross income of \$435,456. Its estimated expenses would be \$253,053, which gives an apparent surplus of \$182,403.

The sudden growth of great cities is the first result of the phenomenon of immigration which we have to note, observes Prof. Ripley in the Popular Science Monthly. We think of this as an essentially American problem. We comfort ourselves in our failures of municipal administration with that thought. This is a grievous deception. Most of the European cities have increased in population more rapidly than those in America. Shaw has emphasized the same fact in his brilliant work on municipal government in Europe. This is particularly true of great German urban centers. Berlin has outgrown our own metropolis, New York, in less than a generation, having in twenty-five years added as many actual new residents as Chicago, and twice as many as Philadelphia. Hamburg has gained twice as many in population since 1875 as Boston; Leipzig has distanced St. Louis. The same demographic outburst has occurred in the smaller German cities as well. Cologne has gained the lead over Cleveland, Buffalo and Pittsburgh, although in 1880 it was the smallest of the four. Magdeburg has grown faster than Providence in the last ten years. Düsseldorf has likewise outgrown St. Paul. Beyond the confines of the German Empire, from Norway to Italy, the same is true. Stockholm has doubled its population; Copenhagen has increased two and a half times; Christiania has trebled its numbers in a generation. Rome has increased from 184,000 in 1850 to 450,000 in 1894. Vienna, including its suburbs, has grown three times over within the same period. Paris from 1881 to 1891 absorbed four-fifths of the total increase of population for all of France within the same period.

STRANGE SCAVENGERS.

How the Markets of Charleston, S. C., are Kept Clean.

Charleston, S. C., has the most primitive and peculiar scavengers in the world. Hundreds—it seems thousands—of carrion crows or buzzards, in the very early morning, swoop down upon the historical old city from the tall palm or palmetto forests which skirt the western suburbs.

In the waking hours any passenger entering Charleston on the Columbia express can see huge black lumps fall from the trees about. They never hit the ground. Out in the open these black lumps gather in a struggling flock and flop their way over toward the custom house. They are buzzards. While the twilight is yet gray these vulgar birds go to the city market and infest it for an hour or two. The passenger who was startled by their dull flop from their palmetto perches, and saw great black crowds of them move across the low rice flats, can, if he goes to the market place, see the same birds, disgustingly tame, running about the stall flows of the meat mart fighting with the hunger of the dogs of the city for the bones and waste which fall from the butchers' meat block.

A stranger who did not appreciate the health value of these buzzards is liable to kill one of them. Then he is liable to be fined \$10, for the city does not allow its peculiar scavenger birds to be destroyed with impunity.

The Charleston market is a noted place in the South. It runs from Market Street to the water's edge, and is the main thoroughfare for the crowd of pedestrians who come and go from the harbor boats. It is a novel sight to see the hurrying feet of workmen treading their way carefully among the big birds gathered there by the hundreds. Like domestic chickens, they stand about, and, like domestic dogs, they watch for every piece of waste as it is dropped from a meat block. One would hardly think as he pushes the big birds out of the way, that these same feathered things roost in the forest, and are tame nowhere else. In the markets they never attempt to steal meat from the counter.

Going through the three or four blocks of the big market one morning the writer counted over three hundred of these buzzards walking about as nonchalantly as though it was their own poultry yard. They will get out of your way. They fight every dog or cat that attempts to run in opposition, and will scramble with a man or a child who disputes with them for a fallen scrap of meat. But they keep the Charleston markets clean, perfectly clean. As a result of their thorough scavenger work this is the cleanest and healthiest meat market in the world.

In consideration of their assistance in keeping the city clean the municipal council has made it an offense to injure or kill one of them. An offender not only has to pay a \$10 fine, but usually gets a free lecture on the laws of health and the value of the buzzards as assistant members of the local board of health. By an hour after sunrise the birds have all left the city. It is for this reason that the visitor to the city, who usually gets up after that hour, and strolls out later, never sees this extraordinary sight of wild birds acting as market scavengers.—Washington Star.

The highest pay given German railway engineers is \$1.25 a day, while the conductors receive only \$1. Many of them have to be on duty fifteen or eighteen hours a day.

The three Europeans standing highest in the Chinese customs service are Irishmen.