

**NORMAL MAN RIGHT EARED**

**That is, the Right Side is the Better Servant.**

**LOCATES SPEECH AREA**

**Curious Features of the Onesidedness of Man—One Thing That Distinguishes Him From the Beast—Why Left Handed Children Should Be Trained That Way.**

Most men, it has been discovered, are right eared. It is not so much that they hear better with the right ear, for the left ear will detect the ticking of a watch as far away as the other; but while both ears hear, it is the right ear that listens—a fact which any one can easily test for himself. One ear will catch a faint sound about as quick as the other, but the right ear is the first to recognize the noise and to know it for watch or distant trolley car or railway train or what not.

Curiously too the right ear is the better servant of the mind. Not only are sounds better recognized and located with this ear, but—always, of course, in right handed men—they are remembered better.

The usual test it to stop one ear of the subject, read him a string of disconnected words or a coherent sentence, and after the lapse of a fixed time let him see how much he can recall. It turns out that when the left ear has been stopped and the hearing has been done with the right distinctly more can be recollected than when the conditions are reversed.

A few persons have been found who can remember more when they listen with the right ear alone than when the both are in use. The ear which merely hears only confuses the one that pays attention.

Apparently with men naturally left handed all this is reversed and the left ear does most the work.

Nearly all right handed men sight with the right eye, use that eye with a telescope and hold it opposite the point where they read. Left handed men are apt to use the left eye for these purposes. Any one can try for himself and see whether, though he can make out the letters on the page equally well with either eye, he does not read more rapidly and easily with one eye than with the other.

Right or left handedness is, therefore, something more than an accident or a matter of education. There is a fundamental right or left sidedness which affects eye and ear as well as hand.

The brain is far more onesided than the body. It isn't merely a question of remembering better or thinking quicker with one side than with the other. One side absolutely does it all.

This, one need not point out, is, in nine men out of ten, the left side. It is well known that the nerves cross over from one side of the brain to the other side of the body, so that the left brain manages the right side of the body and the right brain the left half.

Practically, then, eye, hand, ear and brain are all tied together. The more useful members of each pair are most closely related to one another. We are right handed because we are left brained. If we chance to be left handed it is because we were, to begin with, right brained.

What, therefore, nature has joined together parents and teachers should not attempt to put asunder, some investigators argue. If a child is naturally left handed it is unwise to attempt to make him change. The only result will be to break up the quartet of hand, eye, ear and brain and shift one member over to the other side to weaken its connection with the other organs and to handicap the victim of mistaken effort.

The left handed person is made artificially right handed. He still remains left eyed and left eared. He still does his thinking with the right side of his brain. His speech center is still on that side. Sight, hearing, thinking and speech are related, as they should be. But for writing, ciphering, drawing, or anything else that requires both thought and skill, all the nervous impulses instead of flowing out normally and directly from the right brain to the left hand, have to cross over to the other side of the head and pass out from there to the other hand. One crossing from outside world to mind, and one from mind to outside world is nature's rule. To introduce more crossing into the circuit is to put another obstacle between the idea and the expression.

We are then right or left handed because we are right or left brained. The distinctively human faculty of articulate speech has been grafted on to one side of the brain only. The other side is as dumb as the brain of a dog.

Nobody knows why, in the first place, the speech center got on the left side. But being there, it gives hand and eye and ear on the right side of the body the better chance to acquire skill, and makes them the special servants of the mind. In a very real sense we are men on one half of our bodies, and dumb and clumsy beasts on the other.

**HOW UNCLE SAM PAYS DEBTS.**

**Settles With Warrants Drawn Upon United States Treasurer.**

The United States government never pays immediate cash for any purchase or any service on the face of the earth. It does business by warrants drawn upon the Treasurer of the United States, the man in whose custody there are money and securities to the value of \$1,200,000,000, and who gives a bond to the government in the sum of \$150,000. The warrant is drawn by the Secretary of the Treasury or his assistants, and it may be for one cent or it may be for \$50,000,000. There is no handing over of cash out of the cash drawer without a warrant; no taking of receipts, few of the formalities that characterize ordinary business.

There was disbursed during the last fiscal year \$567,411,611, besides much more than \$100,000,000 on account of the Post Office Department. Not a penny of it was paid except by warrant upon the Treasurer of the United States. If the government owed a man a single cent it would set about paying the sum as deliberately as if it were \$10,000,000. There would be absolutely no difference in the routine the claim would have to travel, unless the amount due happened to be in favor of some great man of the government. This would induce the clerks to push it along.

Ex-President Grover Cleveland holds the only warrant for one cent ever drawn by the Secretary of the Treasury upon the United States Treasurer. It was in payment of the balance of the salary due the great democratic chieftain at the close of his term in 1897, and its issuance was made necessary by one of those mistakes that are rare on the part of the expert bookkeepers engaged in running the accounts of the government.

Every quarter the President of the United States is entitled to three checks—one for \$4,166.66 and two for \$4,166.67. The table of methods of paying government salaries shows that if the \$50,000 a year for the President is divided into twelve equal instalments, one for each month, the amounts will be \$4,166.66 2-3, but the two-thirds of a cent cannot be paid at the end of a month, and so the practice is to send the President a check for \$4,166.66 one month and the other two months of the quarter the amount is \$4,166.67.

In some manner President Cleveland failed to get a check one month for the extra cent that was due him, and when the books were balanced at the close of his term it was detected. With all due solemnity the officers of the Treasury drew the famous warrant for one cent, and Mr. Cleveland received it with the same amount of seriousness.

He has never cashed the warrant and has preserved it, although it is good, while others believe that it is not worth a cent now.

**A Resident in Java.**

In Java the European "resident" of a government station is a very important personage, to whom great homage is rendered by the natives. A story is told of one resident who was thrown out of his dogcart while descending a hill. He had barely recovered from the stunning fall when he caught sight of his secretary—carriage—coming bounding down the steep road like a big India rubber ball, rolling over and over in the dust. "Hallo, have you been upset, too?" asked the resident. "No, resident," sputtered the fat little secretary, scrambling to his feet again, "but I thought if the resident leaps I leap too."

During a cholera scare another resident invited a widow to remove to a high hill as a precaution against the disease. She, however, said that she thought her time to die had come, and as her husband had been a person of importance in his lifetime, she asked only for the inestimable privilege of having her grave dug next to the resident's own.

Some years ago the government of Java offered a reward for all crocodiles killed or captured. For a time enormous numbers of them were brought to the authorities. Then it was discovered that nearly all the natives had gone to raising crocodiles, so the reward was withdrawn.

**The Pope's Old Watch.**

Pope Plus X, is never ashamed of his humble start in life. Once, it is related, in the presence of a Cardinal, he drew from his pocket a cheap looking watch, the guard of which consisted merely of an old shoestring.

The Cardinal at once produced his own magnificent gold time-piece and begged His Holiness to "accept it, and give him the inferior one in exchange. But the Pope refused, explaining that the poor old watch was a present from his mother, who had to stint herself to pay for it. As to the shoestring, when the watch had been paid for, there was no money left for the chain, so one of his sisters gave him the string.

**Mr. Carnegie's Habits.**

Mr. Carnegie never smokes. No one dares light a cigarette in Skibo castle. Mr. Carnegie does not play cricket; is not devoted to riding; never followed the hounds in his life and does not shoot. Golf Mr. Carnegie plays in moderation and he is fond of trout and salmon fishing. He loves to potter about his garden. Skibo castle is to him a great open-air toy, with which he is never tired of playing. He is always planting here, diverting a stream there, making a new road or mending a bridge.

**AILMENTS OF WORKERS**

**Maladies Peculiar to Certain Forms of Trade.**

**NUMBER IS INCREASING**

**They Range From Bends to Writer's Cramp—Ship Engineers, Preachers, Stonecutters, Weavers, All Subject to Maladies Caused by Their Occupation.**

Last year, probably 500 men in America and Europe died of the bends. And what is that? Simply a malady caused by breathing air at high pressure.

In building tunnels and excavating for piers it is necessary to send men down into caissons in which the air, instead of being at its ordinary pressure of 15 pounds to the square inch, is at 50 or 100 pounds. Few men can stand this pressure long and even those that can ordinarily suffer alarming after effects. Coming out into the open air again their ankles and knees swell, they vomit and there are agonizing pains in their heads. Sometimes they sink into a comatose state and die.

Fortunately modern medicine tries to keep pace with modern maladies, and so it is usually possible to cure this disease. It is due as a rule to the fact that the transition from the outer air to the caisson, or vice versa, is made too rapidly.

The man who topples over in agony after leaving a caisson is sent back and the pressure is reduced very slowly. In Europe, the tunnel and bridge builders maintain special chambers for this purpose. As a result the mortality in bends has been reduced to 3 per cent.

Unfortunately there are other occupational diseases which present greater difficulties. Some of them in truth may be cured only by the patient abandoning his trade.

One of these is chalacosis, which is a malady of the lung. It is caused by breathing great quantities of stone dust.

You have often observed no doubt, that when a marble or stone building nears completion men go all over its surface with sandblasts, cleaning and smoothing the stone. Well, these blasts send up a cloud of finely powdered stone and the workmen are forced to breathe it.

At first their bronchial tubes make a brave effort to expel the dust and they cough a great deal. But by and by the little scavengers in the vestibules of the lungs are overcome and the minute particles of stone begin to invade the lungs themselves. The result is chalacosis, which is a form of pneumokonosis, which means a scarlike overgrowth of lung tissues.

Wind instrument players suffer from a malady called emphysema. The small air passages in their lungs are inflated so much and so often that the surrounding cells are mashed flat.

Workers in chemicals are subject to all sorts of unusual afflictions. Those who take part in the manufacture of rubber for example, are often badly injured by the capers of sulphide of carbon—an exceedingly ill smelling liquid used to dissolve the elastic gum. These vapors cause headaches, neuralgia, a staggering gait and violent bodily pains, followed sometimes by delirium and mania.

Weaver's tonsillitis is a malady frequently met with among the employees of cotton mills, due to the presence of minute fibres of cotton in the crypts of tonsils.

These tonsils cause a chronic irritation and the way is thus opened for the entrance of stray germs. The malady yields to the treatment indicated for ordinary tonsillitis.

Tea tasters, despite the fact that they seldom if ever swallow any of the tea they taste, commonly suffer derangements of various bodily functions. The poison in this case is the very powerful alkaloid to which tea owes its soothing virtues.

It is a commonplace of observation that the excessive use of any one group of muscles leads to a sort of local paralysis. This malady was formerly very familiar in the form of what was called writer's cramp.

It was thought that the triumph of the typewriting machine over the old fashioned pen would cause it to disappear from the earth, but it is now in full bloom as typewriter's cramp. Similar neuroses afflict telegraphers, violinists, piano players, cigarette makers and milkmaids.

Another form of this serious and troublesome disease incapacitates marine engineers. These men usually spend all their time, awake and asleep, within a few feet of their beloved engines.

The constant vibration overworks certain of their muscles—particularly those of the legs—and the result is a good deal of pain. Sometimes this pain extends up the back and has distressing consequences. As a rule it is relieved by a few days ashore.

Workers in ship engine rooms also suffer from breathing hot, vitiated air and from constant stooping. Spasms, rigidity of certain muscles and various neuralgias and hysterical symptoms are sometimes encountered in such men.

Pure obstinacy often looks like courage.

**HOW PENCILS ARE MADE.**

**Wood Comes from the South—Graphite Tempered by an Alloy of Clay.**

The lead pencil, as we know it today, is a product of several centuries, representing the labors, thought and genius of many thousands of people, conserved in processes, methods and systems, which require a thousand men and women to operate. In other words, it requires the service of a thousand people to produce one lead pencil, but in the same day the finishing touches are put upon the one pencil, this force will turn out 250,000 pencils.

The lead pencils, as its name would seem to imply, is not made of lead but of graphite. Originally it was made of metallic lead incased in wood—hence its name. But it was not until after the discovery of the famous Cumberland graphite mines in England, 1665, that graphite supplanted metallic lead in the pencil.

For two centuries the lead pencil industry was confined to England, but in 1761, when Casper Faber of the village of Stein, near Nuremberg, Bavaria, began in his village a small pencil plant, the industry gradually shifted into Germany, where it prospered to such an extent as to become a world's center, and remained such for about a century. Even to this day there are about 60 pencil manufacturing in Nuremberg.

The fact that the cedar suitable to go into a lead pencil, owing to its straight grain and smooth texture, is found exclusively in the southern states, particularly in Florida and Alabama, united with the circumstance of the war tariff and the Atlantic blockade in the 60s, cut off the supply of the raw material to the German manufacturers and created conditions for the successful promotion of the industry in the United States.

The graphite, which is the essential part of the pencil, comes chiefly from Ceylon, Eastern Siberia, Bohemia and Mexico. The ore is often found in quantity in other localities, but it is so mixed with oxides of iron, silicates and other impurities as to render it unfit for the manufacture of pencils. As it is the best graphite mined, it has to be treated by hand to free it from such impurities which are nearly always found in certain quantities. In cheaply made pencils these foreign elements are readily detected by the greasy or scratchy run of the pencil on paper. After the graphite has been broken in small bits and separated as nearly as possible from its impurities by hand, it is pulverized and then placed in tubs of water, allowing the impurities to precipitate while the graphite floats upon the surface. A centrifugal device is often used by which the graphite is separated by dry process, but this is not reliable and is little used in the making of good pencils.

After the water process, the graphite is filtered through filter presses when it is ready to be treated to the clay process. This process, which was discovered in 1820 by M. Conte, a French chemist, permits the manufacturer to produce pencils of different grades and adapted to many uses. As the graphite from the filter process would be too soft for ordinary uses the special clay introduced into it, having been treated to a similar process as the graphite, gives it the degree of hardness desired. The more clay in the graphite the harder the lead becomes.

While the clay-graphite mixture is still in its plastic condition it is shaped into loaves and fed to hydraulic presses, which gives them a desired form. The high grade pencils—those of the greatest wearing qualities—receive a higher degree of pressure. These hydraulic presses are each provided with a sapphire or emerald die, corresponding to the caliber of the lead desired. The graphite is forced through the die and leaves it in one continuous string, which is cut into lengths suitable for pencils, usually about 7 inches. The graphite is then ready for use.

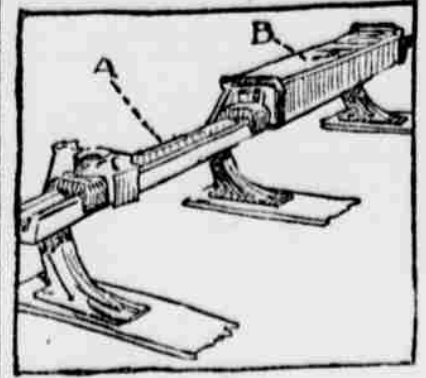
After the cedar slats are kiln dried or treated by steam processes to expel all moisture, they are passed through automatic grooving machines, each slat receiving six semi-circular grooves into which leads are placed, brushed with glue and fitted to its mate. A skillful girl is able, by one swift movement of her fingers, to sweep 15 or 20 leads into their sockets. A bunch of these leaded, mated slats is thrust into a hydraulic press when all superfluous glue is squeezed out and the bundles are locked and allowed to dry. The glued slats containing the leads are then run through molding machines which turn out the pencils in round, hexagon or flat shapes as desired. Preliminary to the varnish-coloring process the pencils are run through sanding machines. Both the sand-papering and coloring processes are automatic, the pencils being fed in quantities in hoppers. In the latter case they are carried one at a time through small coloring vats and discharged through an aperture of the caliber of the pencil and deposited in a slowly moving dry belt which carries them a sufficient distance, about 20 feet, to allow them to dry. They are then gathered from the receptacle into which they are deposited and the process is repeated—often ten or more times, according to the quality of finish desired. Odd shaped pencils, such as hexagons, flats, etc., are colored by the old process, by being suspended by their ends from frames and immersed in coloring vats, then slowly withdrawn by machine. This gives a smooth enamel finish.

Extensive coal mines are now being worked on the island of Sumatra.

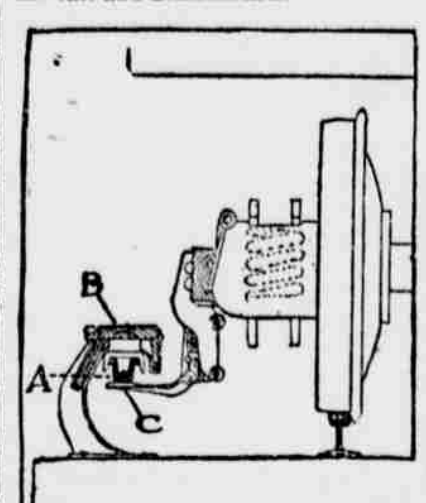
**PREVENTS A STORM TIE-UP.**

**A Chicago Man Has Solved the Problem "How to Conquer Sleet."**

A protected third rail for electric, elevated, surface or subway railroads, which will finally overcome the most annoying problem to the elevated railroads—the sleet—is claimed to have been perfected by E. Wilson Farnham, Chicago. The tie-up of elevated roads, and the surface lines with the third rail attachment, which occurs during sleet storms, brought from the officials of the lines the announcement that they had found no method by which the elevated service could be safeguarded.



Mr. Farnham has been experimenting along these lines for years. To perfect the idea, he leased a mile of railroad track near Clyde, Ill., where he worked out the plan, put together a section of the rail and gave it a thorough test. Perfected models were constructed, and arrangements made to manufacture the rail and attachments.



A, third rail; B, box cover over rail; C, contact shoe.

Models show a perfectly guarded third rail. The rail is attached in an inverted position to the insulated arm which supports it. An insulated cover fits over the top of the rail and the two sides of it are protected by a box-like arrangement. The only way to reach the rail is at the under side of the box-like protection. At that point the surface of the rail projects slightly, so that to reach the third rail a person would almost have to lie on the ground and reach up under the rail to touch it.

The shoe through which contact is obtained by the motors of the cars makes the contact by pressing up against the bottom of the rail, instead of sliding along the upper side of the rail. The mechanism is the same as for the top-side shoe in an inverted position.

**Modern Wreckers.**

When the British ship Umzumbi, plying between England and South Africa, went on the rocks, off the western coast of France, a few weeks ago, her furnishings and cargo were looted by the inhabitants of the islands of Ushant and Bannec. Search was made on these islands for the stolen goods, but to no purpose. An inhabitant of Ushant explained the situation as follows: "When a ship is wrecked on these islands the robbers take what they can and bury it in the sand or hide it in some other way. They wait patiently till the hue and cry has ceased, and then go and unearth their barrels of wine, spirits and Madeira and the furniture they have stolen.

"Pillage of this kind is the principal resource of many of the islanders and the most bountiful harvest they could possibly reap. Not a wreck occurs on our coasts without these thieves hastening to the scene. Everything that they find is turned to some account, whether it be watches, money, furniture, or even sextants and chronometers. Since I came to live on the island I have seen ten wrecks stripped of their men and there are no police to stop them.

"Once a fortnight the police come with the mail packet and then you hear some shrill whistling, which is the islanders' method of telling one another to look out. The goods stolen from the Umzumbi will not see the light till three or four months hence. The re-floating of that vessel aroused great indignation among these honest people, who considered that once she was on the rocks she belonged absolutely to them."

**Electricity for Seasickness.**

The ship physician of the Hamburg-American liner Patricia publishes his account of a new method for treating seasickness by means of an electric-vibration chair, writes Consul Osman from Stuttgart. Six of these chairs were placed aboard the Patricia and connected with the electric light conduit. The sedative effect on the patient when vibrated in the chair was noticeable, reducing the pulse and nervous excitement. The use of these electric chairs will be extended to other steamers this winter.

**CAREFULLY GUARDED SECRETS.**

**Few of the King's Household Know About his Private Affairs.**

There is a sense in which monarchs have no secrets. In the very nature of things they are compelled by the necessities of their position to take someone into their confidence with respect to almost every detail of their daily life. But for the most part those confidences are jealously guarded, and in a hundred and one ways the public curiosity has to satisfy itself with more or less plausible "guesses at truth."

To take an example. The last will and testament of Queen Victoria has never been disclosed, as the law of probate does not apply to the sovereign of the realm, says Cassell's Journal. For several years before her demise the society gossip used to profess an intimate knowledge of its contents; they knew how many folios it occupied, the exact number of codicils, the color of its bindings and other irrelevant facts. But all their predictions have been falsified by events, and although it is sometimes declared that many persons about the court are familiar with its chief provisions, there are probably not half a dozen people, besides her late majesty's own children, who have any real knowledge about it, and they will never tell. Even to this day the public is entirely in the dark as to the provisions of the will of the prince consort, and it is purely a guess that the chief legate was his nephew and son.

Take the case of King Edward's private investments. These are known to but three courtiers, and only one schedule of them, it may be said with confidence, is in existence. People profess to know of large purchases of West End ground rents, of huge commitments in American railways, and so forth. For the most part, however, these securities are held in the names of trusty intimates who are themselves large investors, and no estimates of his majesty's personal estate has any value whatever. Many European sovereigns, especially in the more restless portions of the continent, are said with much reason to keep the bulk of their private fortunes in the strong rooms of the Rothschilds and other financial houses in London and elsewhere, where their secrets are inviolable.

One veteran monarch, to the writer's knowledge, conducted his private business with his London agents through the medium of a young Englishman, whose duties were quite unsuspected, even by his own relatives. Whenever he came across the channel he used to put up with a linen draper whose acquaintance he formed in his boyhood, and by this means his movements were kept secret. If anyone had inquired his business, he would have produced a case of commercial samples and offered to open an account.

King Edward carries at one end of his gold Albert a gold key which his gold Albert a gold key which there is no duplicate. All state papers, however, are kept in despatch boxes until transferred to the safes in the secretariat and of these the keys are kept by Lord Knollys. When his majesty has quitted his personal apartment no servant is allowed to enter until an assistant secretary has destroyed the contents of the waste paper basket, the blotting pads, and even the printed wrappers of newspapers received from every capital in Europe. It is an unwritten law that the private secretary shall not indulge in a gossip diary after the manner of Samuel Pepys—he must, of necessity, keep a daily record of bare facts—and certain courtiers, including the maids of honor, are required as a condition of their service to enter into an obligation of the same kind.

All royal telegrams are manipulated by a special operator, who is reserved for this duty. Unlike public messages, no duplicates are kept, and the original messages, in certain instances are promptly returned to the palace, after a note has been made of the number of words for the purpose of account. The cipher codes which are used between the foreign office and the embassies abroad are not employed for the personal messages of the king, nor is any system of cryptic writing usual between monarch and monarch.

The German emperor encloses all his private letters in waterproof envelopes of a special make. He is believed to make freer use of secret devices in corresponding with his ministers and others than any other European monarch, and there is no doubt that his private safes contain a mass of secret intelligence, strategic memoranda made by his own hand, and other matter which, in England, are left to the departments responsible for such things. It is understood that he keeps no private diary, but the Empress Augusta has been accustomed ever since her marriage to commit her thoughts on current affairs to writing, and each January the diary for the previous year is locked and preserved in her jewel safe.

The Minnesota State Auditor's office recently paid bounty claims on 1,021 full-grown wolves and 951 cubs. The amount paid out was \$9,721.50, and in this fiscal year about \$30,000 has been paid out on such claims. Marshall county made the biggest showing with \$1,620 paid, and claims for \$132.50 from Hennepin county were honored. The present bounty is \$7.50 for grown wolves and \$3 for cubs.

Present a small boy with a watch and he'll have the time of his life.