

THE WHY AND THE WHEREFORE.

The "Because" of Many Things Which You Have Timed and Again Wondered About.

The mane of the lion is useful to that animal, because, hanging over his shoulders, it protects his powerful muscles from changes in temperature and keeps them ready for use.

The voice can be heard to a greater distance through a speaking tube than through the air because the sound is confined to the air within the tube and the tube itself is a good conductor.

The horse's eye has a thick glutinous secretion because his eye, being large and much exposed to dust, the viscid secretion cleanses it more effectually than would one more watery agent.

The snipe has nerves clean down to the tip of his bill because he digs for his living, and, not being able to see his food, has these nerves provided to enable him to ascertain its presence.

The perfume of flowers is more clearly perceived just before or just after a rain because the air, being then laden with moisture, better conveys the essential oils that constitute the perfumes.

The apparent depth of water is always deceptive, because the light reflected from the bottom is refracted as it leaves the water. Water is generally about one-third deeper than it appears to be.

White spots appear on the nails because the vascular tissue underneath is attached to the substance of the nail, but from some accidental cause, such as a blow, occasionally becomes separated.

The day after a heavy snowfall is usually very clear because the snow in falling brings down with it most of the dust and impurities of the air and leaves the atmosphere exceedingly pure.

A closed room is bad for sleeping, because air once breathed parts with a sixth of its oxygen and contains an equivalent amount of carbonic acid gas; air breathed six times will not support life.

Piercing the flesh with even the finest needle hurts because the nerves are so thickly matted just under the skin that not even the finest point can be introduced without wounding one or more.

The ears of most defenseless animals like the rabbit are turned backwards, because these creatures are in constant apprehension of pursuit; hunting animals have their ears turned forward.

Green wood hisses and splutters when burning because of the large amount of water contained in its fibres, which is changed into steam by the heat, and bursts off tiny splinters in making its escape.

Chimneys smoke because the carbon of the coal is disintegrated and drawn off by the heat instead of being consumed in the fire. A furnace properly tended would not smoke, as all the fuel would be consumed.

A cat is enabled to send out or to retract her claws, because the bone to which the claw is attached has a rotary movement on the bone above, and a powerful ligament draws the former down and exhibits the claw.

The snow huts of the Esquimaux are the warmest dwellings that can be constructed in polar regions, because snow is the poorest conductor of heat that can be found there, and keeps the warmth of the fire within.

Water dissolves various substances because the atoms of water, being very minute, penetrate the spaces between the atoms of many substances, and overcoming their cohesive attraction, causes them to fall apart.

Charcoal is a powerful disinfectant because the carbon of which it is composed readily absorbs and combines with many different kinds of noxious gases, thus removing unpleasant odors and harmful substances from the air.

People hicough because of a muscular contraction of the diaphragm. It is supposed to be sympathetic and to arise from an effort of the diaphragm to assist the stomach to get rid of some indigested or disagreeable matter.

Cropping a cat's ears keeps her at home because in prowling at night among bushes and grass drops of water falls in her ears, and she prefers to stay at home rather than spend the time scratching her head to get the water out.

Clouds that move in a direction opposite to that of the surface current indicate a change of weather, because they prove the existence of two air currents, one warm and the other cold, and the mingling of these often causes rain.

The strongest muscle is in the calf of the leg, because locomotion is one of the most necessary functions. The great muscle of the calf has been found, by actual experiment, to be capable of sustaining seven times the weight of the body.

Many persons lay a poker across the top of a grate to make the fire burn, because of a popular superstition, once credited, that a stubborn fire was due to the devil. Two pokers were used, and were laid across the fire in the form of a cross.

The human system can endure a heat of 212 degrees, the boiling point of water, because the skin is a bad conductor and because the perspiration cools the body. Men have withstood without injury a heat of 300 degrees for several minutes.

The oil glands of the skin are most numerous in races living under the tropics, because the oil is nature's protection against the heat of the sun. In hot countries its action is often assisted by the applications of vegetable or animal oils.

Sounds can be heard over water to much greater distances than on land because the smooth surface of the water offers less impediment to the passage of the air vibrations. On calm days the booming of artillery at sea has been heard for 250 miles.

Bunches of dried sea weed, window cords, crackers, tobacco and similar fibrous substances indicate the approach of rain, because their fibers become soft by absorbing the moisture of the air when the atmosphere is approaching the point of saturation.

A flash of lightning is generally succeeded by a heavy fall of rain, because, it is supposed, the discharge of electricity destroys the vesicles of the mist and vapor in the air, the thin films are concentrated, unite with others and descend in the form of rain.

OUR EGYPTIAN YEAR.

The Practical Separation of the Months and Days we Owe to the Egyptians.

The division of the year into three hundred and sixty-five days and a quarter comes to us from the Egyptians. So far as history reaches back into the darkness of the early ages we are led to believe that the dusky brown people by the banks of the Nile were the first to study the motion of the sun and stars and make them the measure of time. And some recent discoveries in Egypt, by careful students, seem to show the way in which the early astronomers were enabled to count the days in the solar year. The great temples on the Nile were built with a long entrance of columns leading from the river to the interior shrine—a kind of tunnel; sometimes it was lined with sphinxes or huge granite figures. Its mouth was turned towards a certain part of the heavens where the light of the setting sun could enter in it only once a year. It was either at the summer solstice, when the sun was farthest in the north, or at some other periodic position of sun or star.

We may imagine the Egyptian astronomer watching in the inner shrine for the opening of new year.

THE LONG LINE OF COLUMNS

served as a telescope by which he could catch the first beam of the setting sun. Suddenly the red light would flash through the tunnel up to the Holy of Holies; the moment it reached the shrine the philosopher would mark the hour, and know that another year had begun. From that point in time he could count day after day, until, when the three hundred and sixty-five days had passed, once more the red beam of light streamed into the tunnel, and another year had passed away. In this way it seems probable that our days were first counted and divided.

Other nations, and even the Greeks and Romans, used the moon as their guide, and divided the year into lunar months. But it was found, as time passed on, that great irregularities crept in; the months no longer corresponded to the seasons; April became June, and the autumn months winter. The Egyptian sun-year was then generally adopted. But even this was discarded and altered by the ignorance of the Roman priests; and at last Julius Caesar, who was fond of astronomy, resolved to correct the calendar; it is his year that we now use, and to his friend, the Egyptian Sosigenes, we owe our division of time. Astronomy was a favorite study with the cultivated Romans, and from Egyptian Alexandria, the scientific centre of the time, they drew their chief masters and books on the stars. Caesar fixed upon the 1st of January as the beginning of his year—a season of feasting and joy with the Egyptians and all modern society.

Another mode of calculating the days of the year in Egypt was by the rising of the dog-star, Sirius. This was known as

THE SOTHIC SYSTEM.

and is another proof of the careful study the Egyptians gave to the starry skies. It is suggested that the pyramids were built under the guidance of the astronomers, and that many of the smaller temples were directed toward some particular star. But it is probable, as modern research seems to show, that the sun, or Ra, as it is called in Egyptian, was in the most civilized period the chief deity, and its revolutions the only measure of time. The Pharaohs claimed, like the Incas, that they were the children of the sun; on the cartouches the sun stands a circle at the top, and a goose, the symbol of an offspring or son, below it. Ra was the parent of the Rameses, the chief Egyptian conquerors and builders, and their enormous statues still guard the banks of the Nile. From the Egyptian Ra we have learned to divide time, and the New Year's festivities and the more practical separation of months and days we owe to the active astronomers on the banks of the Nile.

NIGH TO DEATH'S DOOR.

How a Young Lady Was Cured of a Terrible Malady When Near the Brink of the Grave.

The large, pretentious brick residence at 86 Miami avenue, in this city, is the home of the heroine of this interesting story. She is Miss Margaret Stenbaugh, and her interesting experiences during the past four years are published here for the first time. "Four years ago," she said, "I was a sufferer in all that the term implies, and never thought of being as healthy as I am to-day. Why, at that time I was such a scrawny, puny little midget, pale and emaciated by an ailment peculiar to us women, that my father and mother gave me up to die. The local practitioner (I was at that time living at Scotland, Brant Co., Ont.) said it was only a matter of days when I would be laid away in the church yard, and as I was such a sufferer I cared not whether I lived or died; in fact, think I would have preferred the latter. I could not walk, and regularly every night my father used to carry me up stairs to my room. I remember my telling him that he wouldn't have to carry me about much longer, and how he said with tears in his eyes, that he would be willing to do it always, if he could only have me with him. It was evidently foreordained that I should not die at that particular time, as a miraculous transformation in my condition was the talk of the neighborhood. I read, of the wonderful cures that were being wrought by Dr. Williams' Pink Pills for Pale People, and my father went to Brantford, where he purchased a couple of boxes from Jas. A. Wallace. I commenced taking them, and I thought for a time they did me no good, as made me sick at first, but very shortly I noticed a great change. They began to act on my trouble, and in the short space of six months I was able to walk. I continued taking the pills, and in the six months I was in the condition you see me now. I fully believe that they alone saved me from the grave, and you will always find myself and balance of our family ready to talk about the good Dr. Williams' Pink Pills did for me."

Sworn and subscribed to before me this 15th day of December, 1893.

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A Westminster Abbey for South Africa.

Westminster Abbey, which has for so many centuries afforded the last resting place for British immortal dead, is destined to have a picturesque counterpart on British soil. Mr. Cecil Rhodes, of South Africa, according to the London Spectator "is going to do a very striking and picturesque thing. He is going to turn the ruins of Zimbabwe—those inscrutable masses of hard, bare stone which stand naked in the wilderness and yield no man their secret—into a Walhalla for South Africa. There, according to a statement made by Gen. Digby Willoughby, are to be deposited the bones of Major Wilson and the men who fell with him, and over them is to be placed a granite monument. Mr. Rhodes hopes to be buried there himself, and he expressed to Mr. Willoughby his 'hope that in time to come it would be as difficult to obtain sepulchre in Zimbabwe as it is now in Westminster Abbey.' The ground is to be consecrated, and a chapel erected, and a trust is to be created for holding the place in perpetuity. Mr. Rhodes has already provided £20,000 for the necessary expenses. The idea is as original as it is imaginative, and shows how the great prehistoric remains always appeal in a special degree to men of English race." In point of antiquity Westminster is certainly not in it with the ruins of Zimbabwe, but Mr. Rhodes' remains would be less likely to be undisturbed by barbarians in London than in South Africa.

Roses are now in full bloom. Many complain that their plants throw suckers from the roots. These are budded roses. You should buy roses grown on own roots, then will have no trouble. Brown Bros. Co., Toronto, Ont., are the leading rose growers in the country. Write them for an agency.

Friendliness of a highly commendable and practical character was displayed a short time ago in Merna, Neb. A poor widow supported her three children by taking in washing. Several of her neighbors chipped in, and raised enough money to buy her a house and lot.

What! Limping Yet!

Why should you go limping around when Putnam's Painless Corn Extractor will remove your corns in a few days? It will give almost instant relief and a guaranteed cure in the end. Be sure you get the genuine Putnam's Corn Extractor, made by Polson & Co., Kingston, for many substitutes are being offered, and it is always better to get the best. Safe, sure, painless.

A guest was shown to a room on the upper floor in a hotel in Memphis. He noticed that the roof evidently leaked, and spoke of the matter to the attendant. "Yes, it leaks," said the latter, "but only when it rains. You'll find an umbrella alongside the wash-stand."

Rev. Dr. Potts says he has used St. Leon, and finds it both curative and refreshing.

A curious fish is found in the rivers of Guiana and Surinam. It is called the anabant, and has in each eye two pupils, an upper and a lower one. When the fish is swimming, it keeps the upper optic, which protrudes above the head, out of the water.

Recipe—For Making a Delicious Health Drink at Small Cost.

Adams' Root Beer Extract.....one bottle Fleischmann's Yeast.....half a cake Sugar.....two pounds Lukewarm Water.....two gallons Dissolve the sugar and yeast in the water, add the extract, and bottle; place in a warm place for twenty-four hours until it ferments, then place on ice, when it will open sparkling and delicious. The root beer can be obtained in all drug and grocery stores in 10 and 25 cent bottles to make two and five gallons.

A. P. 723

Blood Poisoning

Mrs. Mary E. O'Fallon, a very intelligent lady of Piqua, Ohio, was poisoned while assisting physicians at an autopsy 5 years ago, and soon terrible ulcers broke out on her head, arms, tongue and throat. Her hair all came out. Her husband spent hundreds of dollars without any benefit. She weighed but 78 pounds, and saw no prospect of help. At last she began to take Hood's Sarsaparilla and at once improved; could soon get out of bed and walk. She says, "I became perfectly cured by

Hood's Sarsaparilla

and am now a well woman. I weigh 128 pounds, eat well and do the work for a large family. My case seems a wonderful recovery and physicians look at me in astonishment, as almost like one raised from the dead."

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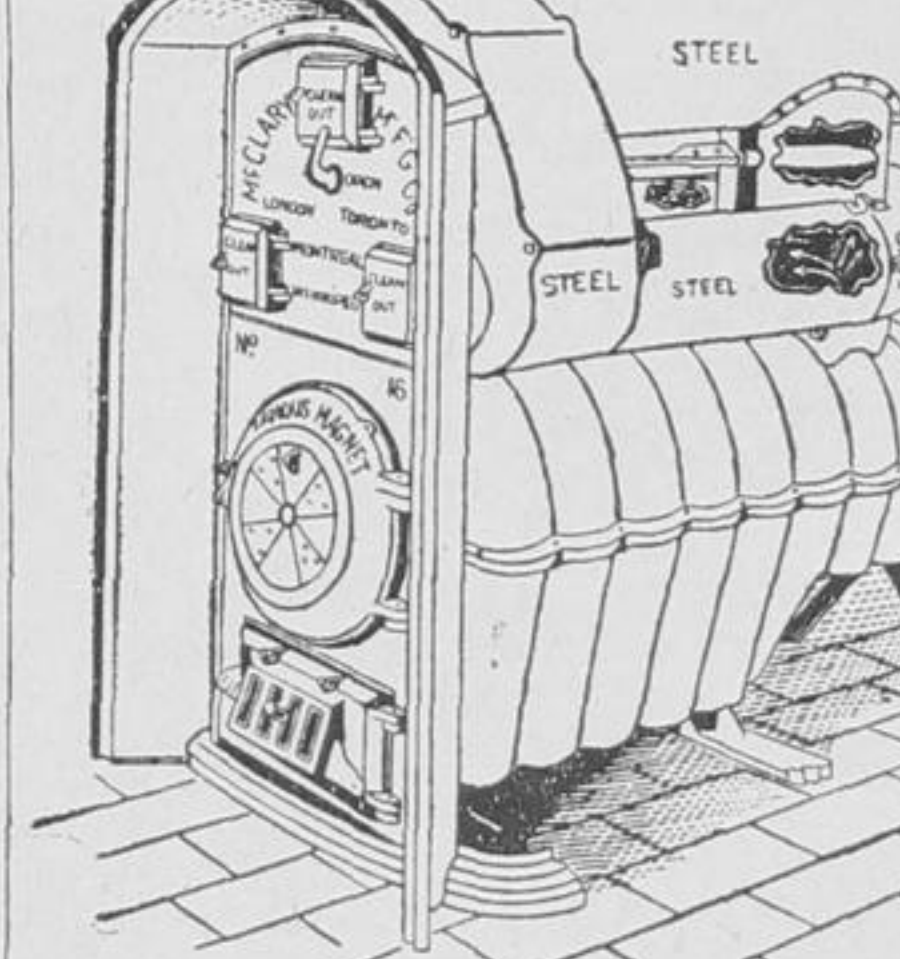
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