

VASTNESS OF SPACE.

FIGURES WHICH MIND CAN HARDLY REALIZE.

A Billion as a Measure of Time—The Pace at Which Light Travels—The Immensity of the Sun—Counting a Billion.



Of course, one can get a grand idea of the mightiness of the earth and the heavens by viewing His works and thinking of the vastness of the great dome above us, but the simple human mind fails to grasp the extent of the mighty grandeur shown in the authentic statements of the astronomer. The fact is, the figures are beyond comprehension of the ordinary intellect when set down in rows that bewilder. We are told that the first three figures are units, tens and hundreds, the next three thousands, the next millions and the next billions. The figures look innocent enough and we can smile at hundreds of dollars and think with pleasurable feelings of thousands, which melt into millions, but the brow clouds with care when we endeavor to get a comprehensive idea of that wonderfully overwhelming quantity set down as a billion. Now, what is instantaneous action? The mind is incapable of comprehending the almost infinitesimal divisions of time that are recorded upon some of the wonderful machines used by scientific researchers after the truth. Light travels at the rate of two hundred thousand miles a second, and is, therefore, instantaneous. The astronomers tell us that when a flash of lightning occurs upon our earth it is not visible on the moon until a second and a quarter afterwards, nor on the sun's surface until eight minutes, or on Uranus for two hours, and upon Neptune until four and a quarter hours after its passage through the ether. Now away, far, far away, beyond Neptune, there are such stars as Vega, of the first magnitude, and on them the imaginary light of the flash would not fall, although traveling at the amazing rate of twelve million miles a minute, till forty-five years had passed, but further, much further on in the never-ending space above us, there are still more distant worlds, sparkling like diamonds on blue velvet, and those of the eighth magnitude would require one hundred and eighty years, and those of the twelfth magnitude four thousand years, for the same flash to reach them, rushing through space nearly two hundred thousand miles each time that a watch makes a single tick.

A shadowy sense of eternity and infinite distance can be formed from a contemplation of the distances of the stars from the earth. The moon is two hundred and forty thousand miles distant, but the sun is ninety-three million two hundred and fifty thousand miles from our planet. The immensity of the sun seems almost too much for the human mind to comprehend, for it is more than a million and a quarter times larger than this great earth on which we live. Sir John Herschel remarks that if the whole of the earth were laid upon the surface of the sun it would not cover more than one-thirteenth-thousandth part of its surface, and so great is its heat that from every square yard of its surface there is exhaled a temperature equal to that which the burning of sixteen tons of coal every hour would produce—sufficient to keep a steam engine of sixty-three thousand horse-power at work. Still, the sun is but a star of the fourth magnitude. Everybody is familiar with "the dog star," Sirius, the nearest fixed star to earth, a sun of suns. This star is upwards of thirteen millions of miles from this earth. So much greater is it than our mighty sun that if broken to pieces it would provide material for about two hundred and fifty suns as large as our own, although our sun, if broken into pieces, would provide material for one million, four hundred thousand globes of the size of the earth. We hear the astronomers talk of billions of miles and years and other things, but few people can form a conception of the quantity comprised in a billion. The mind is incapable of conceiving such an enormous number. In order to comprehend this fact, it may be stated that, in order that a person may count a billion, he would require nineteen thousand, three hundred and twenty-five years and three hundred and nineteen days. The arithmetical symbol of a billion is simple and without great pretension. Let us consider a billion as a measure of time and distance.

It is no easy matter to bring under the cognizance of the human eye a billion of any kind of objects. Take a ten-dollar gold piece as a once familiar object. Put one in the ground and stand upon it as many of its kind as will reach twenty feet in height, then place the numbers of similar columns in close contact, forming a straight line and making a sort of wall twenty feet high, showing only the thin edges of the coin as they lie flat upon each other. Imagine two such walls, running parallel to each other and forming, as it were, a long street. Keep on extending these walls for miles—hundreds of miles—and still the accumulation will be far short of the number we want to reach. In fact, it is not until this imaginary street is extended to a distance of two thousand three hundred and eighty-six and a half miles that we shall have presented for inspection the one billion coins.

To get an idea of height in reference to a billion take a much smaller unit as a measuring rod—the sheets of paper on which this newspaper is printed. Pile them vertically upwards, by degrees, reaching to the height of your tallest spire. Passing these, the pile must still grow higher, topping the Alps and Andes and the highest peaks of the Himalayas, and shooting up from thence through the fleecy clouds, passing beyond the confines of our attenuated atmosphere, and leaping up into the blue ether with which the universe is filled, and standing proudly up, far beyond the reach of all terrestrial things. Still pile on thousands and millions of thin leaves, for this is only a beginning of the rearing of a mighty mass. Add millions on millions of sheets, and thousands of miles on these, and still the number will fall short of the amount. Pause to look at the next cloud edges of the book. The thin plates of paper lie close together. The altitude of this great pile of paper, representing one billion of sheets, is 47,348 miles.

SAID OF NAPOLEON III.

M. Saint-Amand, the eminent French historian, gives the following summing up of the character and achievements of Napoleon III, which conveys a close estimate of that remarkable man:

"Whatever judgment posterity may pass upon the second emperor, it is an incontestable fact that for nearly 22 years he was the most conspicuous personage in all the world. No figure in the latter half of the nineteenth century has so obtruded itself into history.

One of the most singular characters that has ever been examined is certainly that of the victor of Solferino, the vanquisher of Sedan; more cosmopolitan than French, at once a dreamer and a man of action, by turns and even sometimes simultaneously democrat and autocrat, tormented now by the prejudices of the past, and now by new ideas, the representative of Caesarism and at the end of his reign the champion for popular liberties, taking for counsellors men thoroughly antipodal their antecedents and their doctrines, looking like a sphinx and not always able to guess his own riddle, active beneath an indolent appearance, impassioned despite an imperturbable indifference, energetic yet with an air of extreme moderation, loving humanity while contemning it, kind to the humble and compassionate to the poor, very seriously occupied with the idea of bettering the material and spiritual condition of the majority, victim of the faults of others still more than of his own, and better than his destiny.

The republic will always reproach the second emperor with having made the coup d'etat and interfered with liberty. The frightful disasters which concluded his reign cannot be forgotten. A grudge is borne him for not remaining true to his Bordeaux program—"The empire is peace"—a truly fecund program which would have permitted him to realize his dream of extinguishing pauperism.

But on the other hand people remember that he took part in every great affair in all quarters of the globe, that he broached all problems, raised all questions, that his eagles soared victorious from Pekin to Mexico, that he strengthened universal suffrage, proclaimed the principle of national sovereignty and the principle of nationalities, realized in Italy, perhaps, alas! to the detriment of France the dream of Dante and of Machiavelli, emancipated the petty nations of the Balkan peninsula, inaugurated the system of commercial liberty, sought every means which might bring together and unite peoples, and borrowed more than one useful reform from socialism.

It is remembered in fine that he declared nations should be the arbiters of their own destinies, and that he tried to substitute for the ancient system of conquests the maxim, 'Right before right.' The ideas of this modern and revolutionary sovereign, this fore might, the ideas of this modularity and the republic, were developed in an imperfect manner only, and fortune, whose favorite he had been so long, ended by being pitiless in his regard. But his work, though interrupted, had a certain grandeur. Others will perhaps accomplish what he vainly dreamed, and democracy may some day do that wherein a Caesar failed."

Was He a New York Giant?

First Baseball Player—I am tired of this hard luck. I wish things would begin to come my way. Second Baseball Player—You'd miff 'em if they did.

His Daring Attempt.

"What has become of Pontius?" "Oh, he took his life in one hand and a grip-sack of type in the other last week and went to Arkansas to start a Republican paper."

OBSERVATIONS OF A PESSIMIST

It doesn't take much to sustain a reputation that has been made. Many a born leader has died disappointed because he couldn't find anybody who wanted to be led. The man who never knows when he is licked can generally be identified by his battered countenance. Folks who buy things just because they are cheap are always complaining of the scarcity of ready money. The girl who entertains her beau on the front porch while her mother washes the dishes may be good company, but she is likely to prove expensive.

THE EXECUTION OF A CANNIBAL.

It was in the middle of the dry season and the night had been intolerably warm, but by stretching my hammock on the veranda, which faced the Riquelle river, I managed to gain a few hours of rest. It could hardly be called sleep. With the sun came rolling up from the waste of salt lagoons cloud upon cloud of noisome vapor heavy with the poison that makes life in Sierra Leone an uncertain problem and has properly obtained for the spot the term "the white man's grave." I ordered my boy to prepare breakfast and then, taking up my book, slipped into a Madeira chair and had read but a few lines when my attention was diverted from it by the regular tap, tap, tap of a distant drum evidently marking a step. The sound came nearer and nearer, until suddenly upon a dozen rods from my bungalow without a grove of coco palms emerged a black-visaged sergeant of the native troops. By his side walked the drummer, and immediately back of them came three men abreast. Two of these were uniformed in the garrison tunic, trousers and fez, their arms at carry; two platoons similarly attired followed in close ranks, while an English officer brought up the rear. The man in the middle particularly attracted my attention by his strange garb, and as the company passed within five yards of me I readily distinguished the prisoner, for prisoner he was, as an Imperri, one of a fanatical sect of natives whose persistent practice of cannibalism the colonial police had endeavored for years to suppress. As I had been in the interior for several months and had but lately returned to the coast I hastened to inform myself of the meaning of this ante breakfast procession. It appeared that the Imperri tribe,

haunt them and pursue them with his presence. It is significant of devotes of cannibalism that they never admit the practice, and so in this instance the old man's last words voiced his indignant and energetic protest that he was guiltless. The more timid of the onlookers became silent when they heard the threats, as all Africans stand in great awe of the dead and have implicit faith in supernatural visitations. Then, as the drum sounded a signal to the hangman's assistant, who was concealed in the neighboring clump of trees, I turned away. Returning an hour later I saw the corpse of the Imperri resting on the ground near the scaffold, minus the right hand. The heart had also been removed and buried with the amputated member in a spot remote from that selected for the burial of the body. This was in strict accordance with the native belief that if the right hand and heart are separated from the body the deceased is thereby prevented from revisiting his former abode or from doing further mischief. This custom, abhorrent as it appears, is rendered necessary by the native's indifference to death, but as this indifference does not extend to the mutilation of his body its effect is wholesome. GEO. K. FRENCH.

War Quoit of the Sikhs.

In India, until quite recently, the Sikhs used a weapon which was fearfully effective at close quarters—the war quoit. It was the national weapon of that tribe, and is almost as old as the sword and spear. Even to the present day one of the crack Sikh regiments wears the quoit in the turban as part of the uniform. In size and shape these weapons were precisely



SCENE DURING AN EXECUTION IN DARKEST AFRICA. (From a Photo.)

whose habitat is less than twenty miles from the seat of the colonial government, Sierra Leone, on the west coast of Africa, where a pretense of civilization has been maintained for more than a century, had very recently been detected in another man hunt, caught red-handed in fact with the remnants of their horrid feast scattered on every side. The prisoner whom I had seen but a few minutes before had been adjudged guilty of participating in the offense, and the death penalty was about to be inflicted by hanging. The African, with his usual disregard for the lives of his fellows, when not closely watched by superior officers, is not in the habit of taking prisoners. The trouble of feeding and guarding them is too great. But one meek old gentleman who was caught in the act of grilling a tibia over a slow fire, preparatory to disposing of it, was knocked over by the flat of a sword wielded by a white officer, and on regaining consciousness was bound hand and foot and unceremoniously lugged down to the coast in common with a quantity of loot. He was promptly convicted in the colonial court of cannibalism, and I had arrived just in time to witness the closing scene. The townspeople were swarming toward the gallows, which had been erected contiguous to the banks of the river, and following them I secured a place close to the old Imperri and arranged my camera for a few shots. The condemned man was not at all ferocious in his appearance. On the contrary, his countenance was strangely gentle and calm, and the long white gown that enshrouded his body, hanging from the neck, gave him quite a patriarchal aspect.

The better class of the Sierra Leone did not attend the ceremony, but hundreds of Krumen, Mendis, Timuls and Foulahs arrayed in semi-civilized dress, laughing, jostling one another and calling derisively to the principal in the tragedy, made up a motley assembly, such as can be seen only in the Zanzibar of the west coast, where thirty different dialects may be heard in the streets within a radius of five miles. The Imperri was permitted to speak for a few minutes, and this seemed to bring to the surface all his dormant ferocity. He vented his opinion of the authorities, the spectators and his enemies in general in unmitigated language, accompanying each phrase by violent gestures. He told his hearers that he was not both to visit the land of the spirits, but he assured them in a tirade of abuse and invective that he would surely return to earth to

Effect of Coffee on the Nerves.

The impression prevails in many minds that coffee is extremely injurious to the nerves and also to the liver. How true this may be it is not easy to decide. Normal constitutions do not, as a rule, seem to find coffee in moderation in the least degree injurious. Dyspeptics may experience distress from its use, but according to some carefully conducted experiments it is quite as likely to be the sugar and cream in the coffee, as the coffee itself. Persons who have been in the habit of taking coffee prepared in the usual fashion and have found it to disagree with them have tried black coffee without sugar or cream with most excellent results. From which it may appear that the caffeine may not be so injurious after all; indeed, it has of late been used in cases of myocarditis with excellent effect. Small doses of caffeine are recommended, and these at intervals, the repeats being given steadily, then discontinued for a while. In this way the system does not become accustomed to medicine and it is not necessary to increase the dose of the drug.

A Flaming Rejoinder.

"I declare, it didn't take you no time at all to miff dem trows, Sir Brown." "No, Sir Brown, I done it with mean an' dis patch!"—Cleveland Plain Dealer.

TWO ALIVE IN GRAVES

PUT IN A COFFIN SIX FEET UNDER GROUND.

Practical Demonstration of the Old Hindoo Custom of Burying Alive—No Bad Effects Follow, Although the Subjects Experience Horror.



THE horrors of being buried alive have furnished a fruitful theme for writers from time immemorial. The supposed feelings of the persons, however, has rested wholly in the imagination of the writers. William Lloyd and Miss Angie May of Cincinnati, Ohio, are capable of telling something of the sensations experienced, for both have rested in burial robes in coffins six feet below the earth. Of course they were in communication with persons on the surface of the earth, but for all that they were under the ground in coffins, with the lids screwed down, and a little accident would have ended their earthly careers. The Hindoo burials of Prof. Boone have created a furore all through the small towns of Ohio. He buried subjects that he claims had been hypnotized. The inhabitants of some towns went wild and people have gone insane. A number of persons in Cincinnati, including some of the prominent members of the Ohio Liberal league, proposed to expose the operations of Boone and prove that his subjects were not hypnotized, and that it was simply a test of physical endurance. With that end in view the Phoenix Detective agency was hired to superintend the work. After several clashes with the police, William Lloyd, 22 years old, was buried at Hilldale park in a coffin seven feet long, just a foot longer than his body. The lid was screwed on the coffin and it was buried. He had on nothing but a pair of light trousers and a shirt. A tube ten inches square led to the surface of the earth, where a man constantly kept guard until Lloyd was exhumed, after sixty hours.

Lloyd helped to dig his own grave. After being exhumed Lloyd prepared the following statement for publication: "When I went into the coffin I let the lid down, just at 4 o'clock last Sunday morning. When they threw the first dirt on the coffin I yelled up for them to pile it on. It seemed to me just as though I was going to bed. I laid awake for about two hours and talked with the people on the ground. I had to lay right still. I went to sleep at about 6 o'clock and did not wake up until noon. I slept like a babe. When I awoke I was startled for a moment, but soon remembered where I was, and for a few moments whistled to keep up my courage, and it worked all right. I stayed awake until 10 o'clock Sunday night. I was pretty cool most of the time, and I got along all right. I didn't move about any more than necessary and was not hungry, though I wanted a drink. I went to sleep at 10 o'clock. I woke up about thirty-five times that night. I could not sleep. I kept wondering whether some worms would not get into the coffin, and I had a nightmare, during which I dreamed that the worms and bugs were crawling all over me and each one was gnawing at my flesh. I awoke all right the second day, and that day was passed pretty well. The last night was one of horror. I could hear something gnawing at my coffin. It was not imagination. I don't know what it was. It couldn't have been a rat, for such an animal could not have been that far under ground. I ripped on the coffin, and it would not stop. I could not sleep much for fear it would break through into the coffin and attack me. "I was taken out of the coffin at 4:30 o'clock Tuesday afternoon. When I got out of the coffin and felt the air I did not realize where I was at first. I was dazed, but I soon felt all right, and as I stretched myself I felt as hungry as an ox. I was stiff and my lips were parched and my voice was husky. I jumped about a bit, and made a bee-line for the club house, where I drank a lot of water. I ate three eggs, seven slices of bread and butter, some fried potatoes and five slices of breakfast bacon. I drank a cup of coffee and a glass of sherbet. I also stuck needles through my ears to prove that I was not hypnotized. I can stick needles through almost any part of my body. It was simply a test of physical endurance. I am six feet tall and weigh 145 pounds. I forgot to say that I could hear them burying Miss May at 4 o'clock Monday afternoon. She was taken up the same time I was. I tried to talk to her, but my voice would not carry through the earth. I smoked three cigarettes while I was buried, and came near setting the coffin on fire once. You can imagine what a sensation that gave me. I burned a little hole in my neck. I didn't let the people watching know it, as I proposed to stick out the test or die in the attempt. I did it, and now think that I could stay under ground eight days by not moving a muscle or talking. If my coffin was larger I could stand it longer. I found that it is an excellent cure for cold." Angie May, a brunette, who was buried for twenty-four hours beside Lloyd, said that she felt cool under ground. The watchers talked to her often, and once or twice she dined, but had such horrible dreams that she soon awoke. She passed twenty-four hours of terrible imaginings, but says that she did not suffer much physical discomfort. She was dressed in a light

white wrapper. She said she would not hesitate about staying under ground even longer than twenty-four hours. It felt cool and nice in the coffin.

THE KIND OF MAN FOR SPAIN.

How the New Minister Shamed a Mississippi Crow.

"A man who can stand turning down for the cabinet as well as he did ought to make a good minister to Madrid," the president is reported to have said to a friend shortly before he sent to the senate the nomination of Stewart L. Woodford. Placidity of temper, coupled with strong resolution, recommended the New Yorker as fit for the difficulties of the Madrid mission. Perhaps the president did not recall the bearing of Gen. Woodford upon a certain very trying occasion long before the cabinet incident. If that had come to his mind he might have felt additional force in his estimate. Many years ago, says the Washington correspondent of the St. Louis Globe-Democrat, there was a sensational political homicide in Kemper county, Miss. Judge Chisholm was the victim. His case became of national interest. The general government took up with vigor the punishment of the crime. Stewart L. Woodford, of New York, was selected to go to Mississippi to assist in the prosecution. The action of the government was resented. Threats were made that the Yankee lawyer would not see his home again if he made himself too offensive. On the day that Gen. Woodford walked into the court room he looked into an array of forbidding faces and observed that there seemed to be an average of one shotgun to each Mississippian present. He put down the law books on the table, slowly surveyed the crowd, and in a tone indicating perfect composure, said: "There seems to be a good deal of display of arms here. Personally, I don't know that it is objectionable. I have had some experience in looking down the barrels of pieces of larger caliber. Still, if this case is to be tried with shotguns, it may be well to have an understanding to that effect before we begin." The possessors of the shotguns dropped out of the court room one by one, and when they came back they were not armed.

A Measure of Precaution.

The eloquence that marked the speeches at the banquet of the West End Business Men's association Wednesday evening was not more noticeable than the wit. Giles H. Stillwell, the toastmaster, was accused of telling a score or more of original witty stories and getting off numerous witty hits. One of the best appreciated jokes was made when he was introducing John Gardner, an Englishman. Mr. Stillwell thought it would not be out of place to put brakes on Mr. Gardner before the latter began his speech and accordingly warned him that it would be no use in telling in his speech that the sun never sets on the domains of Great Britain. "That," said the toastmaster, "is because the Lord is afraid to leave an Englishman in the dark."—Syracuse Post.

This Is Wonderful.

A remarkable thing happened to one of the forty-five states last year. The revenue of New Hampshire exceeded the expenditures by \$150,000.

The Cattle Getting Mad Too.

A bull attacked a young man riding a bicycle at Syracuse, N. Y., Monday, broke his machine to bits and badly hurt the rider.

PERSONAL.

Rev. Dr. Charles H. Parkhurst has been elected a trustee of Amherst college. Senator Mill of Texas when a boy used to make cigars for sale. His father grew the tobacco in Virginia. Rev. Dr. W. H. O'Connell, rector of the American college in Rome, has been made a prelate of the Roman court. Mrs. Patti has in her home the largest automatic orchestral instrument in the world, which plays all the operas in which the prima donna has sung. Ex-Rear Admiral Brown, who has been talked of for mayor of Indianapolis, says he will accept if the people will come to his terms—a unanimous nomination, \$20,000 a year salary and eleven months annual holiday. Senator Hansbrough wore recently the most remarkable suit ever seen in the senate chamber. At first glance it looked like the cheapest Japanese silk. It is straw color, with a broad, dark stripe running round and round the material like the stripes of a zebra. Florence Nightingale received her Christian name from the town in which she was born—Florence, Italy. Her name is not Nightingale, but Shore, her father being a Nottingham banker who inherited the estates of Peter Nightingale on condition that he assume the name. Von Nolke was an early riser and loved early risers. Once, while roaming around his Siberian estate at daybreak, he found a peasant woman bearing on her back a sack of potatoes which she had just dug, making a loud noise enough for a mile. "Here's a change for you," said the great field marshal; "you see, the early bird catches the worms." Afterward he found out that she was a night thief who had ravaged his fields persistently, but whom his steward had never got up early enough to catch.