

EARTH THREE-SIDED

So Says Prof. Otto Klotz of Dominion Observatory.

Globe Went Spinning Through Heavy Air as Gigantic Tetrahedron—Life Pushed Here From Some Part of Universe by Pressure.

Ottawa, Ont.—The earth once was the shape of a three-sided, flat-headed top and went spinning through the heavens as a gigantic tetrahedron, according to Prof. Otto Klotz of the Dominion Observatory, writing in the Journal of the Royal Astronomical Society of Canada.

The shape was assumed just after the globe had taken on a more solid form. Under the tendency of contraction the stresses and strains followed the lines of least resistance. The tetrahedron is one of the regular geometrical solids which has the least volume for a given surface. As a tetrahedron the planet had four corners, six edges and four surfaces, the edges manifesting themselves as mountains and the surfaces as depressions, and hence oceans.

"We know," says Professor Klotz, "that the South Pole is surrounded by land, which corresponds to an apex of the tetrahedron, while opposite to it is a surface equivalent to a depression, or ocean. In the tetrahedron every corner has a surface opposite it, so that for the earth this would mean that land and water are antipodal, which is fairly well represented in the actual conditions. Another result would be that the land masses would be broad in the northern hemisphere and taper toward the south, which also agrees with our geography.

Inversely, the oceans should contract toward the south, a condition fairly well borne out. The north polar sea being represented by a surface of the tetrahedron and the south polar one by a corner, it would follow that the flattening of the earth in the southern hemisphere would be less than in the northern, and furthermore that the force of gravity would increase less rapidly toward the South Pole than toward the North Pole. Both these considerations have been confirmed by geodetic and pendulum observations."

Answering the question as to how life first got on earth, Professor Klotz asserts it probably was pushed here from some other part of the universe by light pressure.

"A force, though very small in magnitude, has been discovered in light, known as light pressure, which operates in opposition to gravity," he says. "When particles of a spherical form are reduced to a diameter of a sixth of a micron, which is equivalent to 1-150,000 of an inch, light pressure will push such a particle into space. The spores of some bacteria are of this order of minuteness."

"Could such infinitesimal particles pass through the frozen depths of the etheral solitude without losing vitality? This has been experimentally shown possible. Micro-organisms have been kept for six months at a temperature of 200 degrees below zero, centigrade. Spores of bacteria have been kept at a temperature of 252 degrees below zero, centigrade, without destroying their vitality.

"So we cannot avoid the momentous conclusion that it is possible for life to be transported from one planet to another. Hence a world in its beginning, such as ours passed through, probably received its first germ of life from some other world. We, in turn, may contribute to the beginning of life on some world unknown to us. Such a particle, leaving the earth under the most favorable conditions, would cross the orbit of Mars, under light pressure, in twenty days, that of Jupiter in eighty days, that of Neptune in fourteen months, and would reach the nearest star—Alpha Centauri—in 9,000 years."

INVITE CHEMISTS OF WORLD

International Congress of Applied Chemistry to Begin Sessions in Washington Sept. 4.

New York.—The international congress of applied chemistry will hold its triennial sessions in this city from Sept. 6 to Sept. 13. A preliminary session will be held in Washington on Sept. 4. President Taft has consented to act as patron of the congress, and will preside at the opening meeting in Washington.

The congress will discuss chemistry in all its applications to scientific endeavor and commercial enterprise. Most of the technical work of the sessions will be done in about fifty sections and subsections, each group being composed of the representatives of a single department of scientific endeavor.

The chemists were the first scientific body to recognize the necessity for international congresses. Their initial one was held at Karlsruhe in 1860, while the last was held in London in 1909. The president of the organization is Dr. William H. Nichols of New York.

Pleas for Hopely Wife. Latrobe, Pa.—Roger McCormick, a former resident of Latrobe, who went to Idaho a year ago, writes to Latrobe in behalf of a friend who is desirous of finding a wife. He says: "Girls are awfully scarce. A statement from McCormick's friend says: 'I don't care about a young girl, and looks don't count. I do want a good girl and can't make a good living for the right one. My name is Ward Jones.'"

LIGHT ON CUPID'S DISCARDS

Boston Woman Says Bachelors Can Be Recognized by Their Futuristic Look—Girls in College.

Boston, Mass.—Two momentous riddles have been solved here, both by women. They are:

How can you tell if a man is a bachelor? Why is the college girl often more unattractive than her sister who stays at home?

The first question is answered thus by Mrs. Emma W. Clark, president of the Boston Woman's league, who opposes a tax on bachelors:

"Bachelors, the voluntary and hopeless kind, can easily be distinguished," said Mrs. Clark. "On a recent trip to Hull with my friend, Miss Floretta Vining, who believes in taxing bachelors, I told her I could pick out every bachelor in our car, regardless of the fact that I didn't know any of the men in the car. She took me up and I pointed out several men to her as bachelors. She admitted I was right and wondered how I did it. 'I didn't tell her, but it is because every bachelor of that kind has a futuristic look, something akin to that of a hunted animal, always on the watch for snares and pitfalls. 'I divide the unmarried into two classes, bachelors and spinsters. The two classes are quite distinct. Any woman may marry if she will, but it often happens that the only one who appears sufficiently pleasing in the eyes of a man obstinately refuses to marry him. The only condition for women, therefore, in a broad sense, is voluntary, while in the case of men it is unavoidable and, of course, not properly punishable."

Miss Imogene Kelly, a Wellesley senior, answers the second question thus in the Wellesley College News, of which she is editor:

"The girls at Wellesley, as a rule, are not beautiful, and for that reason these girls must educate themselves for the time when they will go out into the world and be obliged to support themselves. If they were more attractive they would be married or engaged and there would be less pressing need for a college education for them.

"The average woman in college does not think it worth while to be particular and scrupulous about her gowns and what she wears, because she figures that only girls will see her. This, with other hasty habits, go a great way toward making one look alshod and carelessly attired."

TAPESTRIES TO NET FORTUNE

French Antiquarian by Risking One Million Francs is Able to Clear Big Profit in Week.

Paris.—Antiquarians often boast of wonderful bargains, such as obtaining a valuable masterpiece for a morsel of bread, but one of their number has just been successful in another way by purchasing six tapestries for \$200,000. A million francs is not a mere morsel of bread, and he might have been in some doubt as to whether he would recoup himself for the outlay; but things have turned out better than he imagined. He has already been able to dispose of one of the tapestries for 750,000 francs, and he has been assured that each of the remaining five is worth more than 1,000,000 francs. The result would be that, for risking one million, he would make a clear profit of 5,000,000 francs, or \$10,000,000, in a few weeks.

The tapestries are, if the journal which gives these details has been well informed, after the six cartoons of classic subjects made by Boucher's own hand and executed at Beauvais. The work was remarkably delicate and perfect and was acquired forty or fifty years ago for a comparatively small sum, \$12,000. The price of objects of this kind has since gone up prodigiously.

CONTROL WEIGHTS OF BREAD

Prospects Good for Parliament to Fix Standard Quantity—Must Be From Unadulterated Flour.

London.—The prospects are good that early success will attend the agitation in favor of an act of parliament fixing a standard quantity and weight of bread in the United Kingdom. King George and Queen Mary have permitted it to be announced that they not only indorse the campaign for reform, but require whole meal bread to be supplied to the royal household regularly. It is demanded that standard bread shall be made from unadulterated wheat flour containing at least 80 per cent. of whole wheat, including germ and semolina. Dr. F. G. Hopkins of Cambridge says:

"Dentists say that whole meal requires more chewing and hence leads to better teeth. This is a vital consideration in view of the fact that the late Sir Henry Thompson declared that a certain percentage of unassimilable fibre in the food was healthful both for the teeth and for keeping the digestive organs properly stimulated."

Lure for the Immigrant. Helena, Mont.—Governors of several states will be asked to meet in Helena May 3 and 4 to form the Northwestern Development league for the purpose of securing cooperation, between Montana, Idaho, Washington, Oregon, North Dakota, South Dakota and Minnesota in the matter of bringing desirable immigrants to this section of the country, and of stopping the flood of immigration to Canada. Governor Norris will send out the invitations to the executives of the other northwestern states.

TO RESTORE BATHS

Italy Purchases Halls Built by Diocletian.

Unique Edifice Dating Back to A. D. 305 to Assume Its Original Magnificence—Many Antiquities on Exhibition.

Rome.—A pleasant surprise now awaits the visitor on his arrival in Rome. Even those who never have been here know by report the baths of Diocletian, that huge monument of antiquity which originally covered a space of a mile square and accommodated 3,000 bathers. The baths were built by the Emperor Diocletian, and his co-regent Maximilian, in A. D. 305.

These stand on the site several churches, including the magnificent one of Santa Maria degli Angeli, into which the sudatorium and tepidarium of the baths were converted by Michelangelo. It was here that the marriage of the present king was celebrated. Since the baths fell into decay after the Gothic invasion of A. D. 410 the vast halls which remain have been divided into comparatively small rooms, and built into the corners of the great building were little wine shops, stables and fifth-rate inns.

Strange as it may appear, after passing through the hands of many proprietors the largest part of the baths belonged until last year to Sgr. Tittoni, the ex-minister of foreign affairs, who was for some time ambassador in London, and is now in Paris. The government had to purchase the land and buildings from him, and then evicted those who desecrated this sacred spot. This noble monument has now been restored to its original magnificence.

In this unique edifice will be held an exhibition of antiquities and copies of antique objects and monuments sent from all parts of the ancient Roman empire. For instance, Hispania-Lusitania, among many other interesting objects, have sent an almost complete series of their municipal laws engraved on bronze tablets. Gallia has provided models of the best-known monuments of Provence, casts of the most famous sculptures, and a collection of war engines which illustrates the celebrated siege of Alesia.

Germany sends the Carolingian group of bronzes of Aquilegrana, the Wolf Mater Romanorum, the Pinetree, a model of the Castle of Saalburg and the Treasury of Hildesheim. From Pannonia-Ilyria (Austria) comes a splendid series of manuscripts and models of the frontier towns of the Danube; from Maesia (Roumania), 271 works; from Greece, a ship load of records; from Africa, a portrait in mosaic of Virgil, and the bronzes found in a gallery which was wrecked while transporting these treasures from the sack of Corinth to Rome.

Egypt, Asia Minor, Persia and even India will contribute their quota to this unique exhibition, which also contains the Laurentine antiquities discovered by Queen Elena at the king's hunting lodge of Castle Porciano, on the spot where the ancient Laurentium stood.

EXPEDITION TO STUDY INCA

Scientific Party Formed at Yale for Exploration Work in Peru With Natives as Guides.

New Haven, Conn.—A Yale scientific expedition, the most ambitious of its kind which the university has ever undertaken, will sail for Peru this summer to do exploration work among the Inca ruins in the Peruvian plateau. The expedition will be in charge of Dr. Hiram Bingham, professor of Latin-American history and a curator in the university museum, and will include also a topographer, a geologist and a number of assistants. The party will explore a part of Peru at present unknown to science.

A practically unknown mountain and lake, the discovery of further Inca ruins and the tracing of the history of these people are the main objects of the party.

President LeGula of Peru has offered the Yale men all possible government assistance.

The president declares he is himself very much interested in the work. The base of operations will be at Arequipa, in southern Peru, where for some years Harvard university has maintained an astronomical observatory.

Iron in Hebrides. London.—The Times states that, as a result of prospecting by a firm of Edinburgh mining engineers on behalf of a company of Scottish ironmasters, the presence of large quantities of iron ore has been discovered in the Island of Raasay, in consequence of the discovery the Island has been purchased by the company, and it is expected that it will become a mining center of importance.

The Island of Raasay is one of the Inner Hebrides, lying between Skye and the mainland of Ross-shire. It measures thirteen miles by three and one-half miles in extreme length and breadth, and is for the most part hilly and barren.

PUZZLE FOR ANIMAL KEEPERS

"Man-Shy" Birds More Difficult to Keep Alive Than Any Other Kind—Other Problems.

London.—Problems that have to be faced in keeping alive the animals at the Zoological society's gardens formed the subject of a most interesting address given at the Royal Institution by Dr. P. S. Mitchell, secretary of the society.

Two great dangers that confronted wild animals in freedom, he said, did not exist at the zoo—death at the hands of other wild animals and starvation.

A curious feature was the heavy mortality among British birds in captivity. It was heavier than that of birds from distant lands.

Explorers in those lands described the complete absence of shyness in birds and animals. It was not so with English birds and animals, for in inhabited countries the only chance a wild animal had of life was to be "man-shy."

English birds and animals had therefore acquired this "intolerance of man." That was why they took so long to get used to keepers and visitors, and why the mortality was so heavy.

Another difficulty was the change of diet. Take the gorilla, for instance. They had until lately given high prices for gorillas, so the hunters caught them, got a small stock of native food and rushed them to England. Here the native food was exhausted and the change of diet had bad results.

This was the reason that the zoo decided not to be in the market for gorillas until they had been in captivity for some time and grown used to "civilized food."

The food question with lions and tigers was not difficult. They had been able to get fresh food for them easily, but since the motor car had displaced the horse it was becoming difficult. He supposed they would have to teach them to feed on punctured motor tires.

Zoo fees were mentioned. The British flea, according to Charles Rothschild, a great authority on fleas, drove off from the animals their own fleas and took their places, so that Mr. Rothschild, as a collector of fleas, found that the gardens furnished him with no new species.

PLATINUM RISES \$10 OUNCE

Hard Variety is Quoted in Maiden Lane at \$43 and Soft at \$41—More Costly Than Gold.

New York.—Platinum, which now is far more costly than gold, has been advancing rapidly in price in the last few weeks. It is quoted in Maiden Lane at \$43 an ounce for the hard platinum and \$41 an ounce for the soft metal. These are the highest prices ever reached and indicate an advance of about \$10 an ounce in the last six months.

The upward movement in platinum was nearly equaled several years ago. In 1906 pure platinum was selling at \$18.50, with only a languid demand. Early in 1906 the sales began to increase and prices steadily advanced until in December of that year pure platinum was selling at \$38 an ounce and hard platinum touched \$40. Then a decline started and continued until 1908, when the price was down to less than \$20 an ounce. The present upward movement started soon afterward.

The production of platinum in this country is small, for all that is obtained comes as a by-product in working the gold placers of California and Oregon. The chief source of supply is the Ural mountains in Russia, but some is also obtained from South America and Canada.

WOMAN ONLY IS PERFECTION

Eight Times as Many Males as Females Color Blind, Declares Prof. Wilson of Columbia.

Boston.—Prof. Edmund Beecher Wilson of the department of biology at Columbia university delivered a lecture before the Society of Arts. In the talk these points stood out:

Man is hybrid. Only woman is complete, in harmony with creation. Far more, a man is likely to inherit some serious ill like color blindness.

Professor Wilson handled this little conundrum to his audience: "Color blindness is a sex limited affliction. Eight times as many men as women are color blind. A man may inherit color blindness from one of his parents, but it takes two to transmit it to a daughter.

"If a color blind man marries a woman not color blind all their grandsons will be color blind, but their granddaughters will be able to tell green from yellow and will not be color blind. The daughters will escape color blindness, but their sons will see no difference between the colors of a crow and a parrot. The daughters of these sons will have a complete color sense."

Goos to Sea in Tent on Ship. New York.—Unique in the history of steamship accommodations are those provided for James M. Nelson, an English traveler and hunter, who is sailing for Florida on the coastwise liner St. Louis. When he arrived here from London he found all the staterooms on the St. Louis engaged. Accordingly he asked permission to rig up a tent, part of his hunting outfit, on the hurricane deck of the vessel.

"I am a believer in fresh air—oceans of it," he told the captain, "and I expect to get my fill between New York and Florida."

DRESS ON \$10 YEAR

Mrs. Mary Shattuck of Groton Gives Girls Advice.

Her Account Books Kept Since She Was Married in 1858 Prove That Her Outlay Has Not Exceeded the Sum Mentioned.

Boston.—The high cost of living as far as dress is concerned has been more than solved by Mrs. Mary W. Shattuck of Groton, who says she has dressed well for 53 years at an expense of ten dollars a year. Her account books kept since she was married in 1858 prove that her outlay has not exceeded that sum.

"It is to be regretted that the girl who supports herself is expected, because of custom, to spend so much money on dress," said Mrs. Shattuck. "I think that in one way it is the fault of the girl herself. She has accustomed the men to look for beautiful and stylish clothes, rather than neat and becoming ones. Nowadays the young man is ashamed of being seen in company with a young woman who is dressed in a gown that has been out of style even a year.

"The young woman of today spends too much money on dress details, such as hairpins, belt buckles and fancy bows. These are unnecessary and can largely be done without. "As an ornamental attire I have two beautiful shawls, one of which was given me on my wedding day, and the other by a friend because she knew I would take good care of it.

"After I am tired of my clothes I fold them away. When I take them out again they are like new. One collar I have in mind I have had for over ten years, and twice it has been in style. Many women throw a garment away when it goes out of style. "A young woman should be taught how to take care of her clothes. It should be a part of her high school training. If she could be taught how to fold her dress when taking it off, how to place her hat away when she arrives home from work or school, that might at some future time turn out of great assistance to her when the question of saving in little things became important.

"Bags and purses take a great deal of money. My purse was given to me 28 years ago, and it is just beginning to wear out. "Mrs. Shattuck's home is a comfortable, old-fashioned house on one of the best streets of fashionable Groton. She herself is a person of unquestionable good taste, tall and graceful, aristocratic in her bearing and manner. She is the descendant of a distinguished line, her mother having come down from Lady Larkin of England, whose husband, Dr. Francis Larkin, was physician to Queen Victoria.

One glance at Mrs. Shattuck reveals the fact indubitably that she is well dressed in spite of her economical regime. Her hair is always neatly combed in a modern fashion, her gown is scrupulously clean and neat, her shoes well made and of the sensible kind. She is altogether a spruce, sprightly lady, looking far younger than her 76 years.

"It may sound paradoxical," said Mrs. Shattuck, "but the woman who wishes to dress economically and yet look well had best buy the best things in clothes. Then she must take excellent care of everything she buys. "I have one black silk dress that cost me about \$30. I have had this dress for 27 years. During this period it has been in and out of style four times, and despite the changing vagaries of fashion I have worn it and in it I have always felt neat and stylishly attired. The black silk is one of the best dresses that I have, and I am perfectly satisfied with it.

"When I am at work around the house I wear a wrapper which never costs me more than one dollar, and of course, I have the old one purchased two and three and four years ago which I work in. "Besides this, I have two nice white waists which I frequently wear with my black silk skirt. These I have had for three years and they cost me not over one dollar each. "For muff and stole I have a handsome black satin set to match my dress and which looks well with my coat. For gloves I purchased two years ago a pair of black silk lisle for 50 cents and also a pair of white kid gloves which I wear on special occasions, and which cost me less than one dollar. These will last me for ten years and over."

Landis Likes Old Clocks. Chicago.—Old clocks of established reputation are liked by Judge Kenneth M. Landis of the United States district court, therefore, an ancient timepiece has replaced the modern one furnished by the government in the court room and chamber of the Judge.

"It is just a good old time keeper—that's all," said Judge Landis. "I like it better than the new-fangled ones that the government furnishes, and I am going to keep court by it, no matter what the other clocks declare the time to be."

The clock is over half a century old.

Gainsborough to Widener. London.—It is reported here that P. A. B. Widener is the purchaser of Gainsborough's portrait of Miss Linley and her brother, Thomas Linley. The price is said to be near \$175,000.

SAYS DANCING IS NECESSARY

Prof. Charles Zueblin Believes Public Schools Should Teach Art as Means of Grace.

Chicago.—That knowing how to guide your toes over a waxed floor is as important as a knowledge of how to use your brains, and that the public schools of Chicago should devote as much time to dancing as to the "three R's" is the belief of Prof. Charles Zueblin.

In a lecture on "The Fellowship of the Common Life," delivered in the Fullerton Avenue Presbyterian church, Professor Zueblin declared there is no other form of exercise or class recreation so important as dancing, and that it is one of the obligations of the public school.

"Though not exactly in the religious sense, it may be called a means of grace," he said. "These contributions to our physical nature are always, of course, in danger of being on the verge of misuse. But that does not make them unworthy, any more than the body itself is unworthy, or that the functions of vision or hearing are unworthy because they are sometimes misused."

According to Professor Zueblin, the six wants of the human race, which, if attained, will give complete fullness of life, are health, wealth, sociability, taste, knowledge and righteousness.

"We cannot build up companionship," he said, "until we have shown the instinct of segregation. Then perhaps we will get to the point where after dinner the women will not go off to themselves, and the men also where they can open up their hearts since they have been playing at conversation, shamming during dinner. "And then, when the men join the ladies, they will not stop talking business, and start talking art, but probably continue discussing the things common to all because they will have common interests.

"Our chief characteristic in education is overspecialization. We all read a certain number of books of a certain kind. There are the six best sellers, and, of course, we want them. We are a little ashamed if we are unable to talk about them. "Then each class has its newspaper, which expresses its own ideas as nearly as possible. There are people who can write a perfectly correct letter without saying anything.

"Our class standards enter into our religious life and determine to whom we shall affiliate and what we shall do. One bears many men argue seriously that whatever is the common practice in business is right because it is the common practice."

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SAYS HAREM SKIRT TO STAY

Will Be Worn by Every Woman in Fashion Within Year, Says Dressmaker at Chicago.

Chicago.—"Harem skirts" will be worn by every woman of fashion within a year and Chicago women will be among the first to wear them.

This is the prediction made by Mrs. Ripley, president of the Chicago Dressmakers' club, while in convention here recently.

"At the convention all styles of the latest fashions from Paris and America will be shown," she explained, before the sessions began, "but the one which we are most interested in is the 'harem' skirt. This is not for the reason that it has been given so much publicity, but because we, who are experienced in such matters, feel that it is a solution to a problem that is worrying women today, that of finding something entirely comfortable and yet attractive to wear. Chicago women, who, I believe, are not so bound by the conventionalities that hamper the women of other cities, will very soon see the comfort and beauty of these skirts, and I firmly believe that in a year from this time the skirt will be worn as much as the 'hobble' when the 'hobble' first came out and women were horrified, but it soon became popular."

TO RECLAIM GERMAN MOOR

Kaiser Foresees Importance of Making His Country Independent of Importing Meats.

Berlin.—Berliners are discussing the lectures delivered by the Kaiser at a meeting of the German Agricultural Council in the sessions chamber of the Prussian upper house. Professor Tacke opened the proceedings with an address on "German Moor and Their Economic Importance, stating that these moors were capable of supplying the market with 18,000,000 pounds of meat annually and supporting 80,000 peasant families. His remarks were supplemented by those of the emperor.

His majesty, appearing in a new role, quite captivated his audience and his voice and rhetoric were their best. He told how he turned the waste lands of Cadzow to practical use, and advised those present to follow his example and so "make Germany independent of foreign markets. When he bought Cadzow in 1899 the land had for years been waste, filled with willows, rushes and marsh grass.

Missouri Holds Its Lead. Jefferson City, Mo.—Again Missouri rises to claim the world's champion ship for corn cob pipe production. The annual report of Labor Commissioner Haller shows that during the last year 15,456,584 "Missouri" pipestems were manufactured in the state. Six factories are operating in Missouri. The pipes wholesale at about five-ninths a cent each.