

The Sun

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Phantasmagoria of Science.

The recent sensational utterances of Professor SCHAEFER of Edinburgh on the artificial production of life from chemical materials are not remarkable.

Despite the enormous advantages of the disposal of Professor SCHAEFER he has offered nothing more than speculation, and without the enticing manner of presentation of a Huxley.

Not Nicotine, but Furfural.

One of those thorough investigations of articles that are consumed generally in which the Lancet indulges occasionally has just been completed, with unexpected results.

The outcome of the experiments was a surprise. It turned out that the amount of nicotine in ordinary mixtures of pipe tobacco was much larger than in any other form of the weed.

That announcement would never do, however, from the Lancet. It need waste no thought on the habits of smokers in the lands where Teutonic and Anglo-Saxon customs do not prevail.

His court dismissal of the idea of a direct supernatural intervention in the first production of life will draw torrents of criticism from orthodox pulpits and the press.

The Military Aeroplane.

To a civilian the fate of Captain PATRICK HAMILTON and Lieutenant W. A. STUART, who were killed by the collapse of their monoplane in a high wind in the army manoeuvres near Gravelly on Friday, is among those shocking incidents that raise the question whether military aeronautics is worth while, considering the toll of life it takes.

When a majority of the London theatres open their seasons with dramas of American origin, so far as it is possible to trace directly the place of any play's origin, it may be safely taken for granted that there exists on the part of London theatre managers a confidence in the American playwright.

Just after the machine landed from a spin of fifteen minutes the force of the wind was gauged as fifty miles an hour. Apparently, then, the accident which deprived the army of two of its most useful instructors in aviation was due to faulty construction of the aeroplane they used.

The particulars of Captain CODY's trial are of great interest as showing the progress of military aviation. His machine was a biplane of 120 horsepower equipped with an Austro-Daimler engine, and the total flying weight was 2,850 pounds.

Although the winning machine was a biplane the monoplane was used by nearly all the competitors. Very little change in structure was shown, so that it is clear the greater stability attained was in the main due to improved power and reliability of motor.

Cooperation in Art.

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formances are more or less synonymous it has never been possible to learn.

Various explanations are always made by American managers in reference to the short runs of these "successful" plays in London. Sometimes the theatre is too small to allow the production to be profitable.

It is not possible that only the vanity of our managers is the explanation of these frequent attempts to win London approval for their productions. Evidently London entrepreneurs are willing to produce the works of American authors even if they do not hold the boards as long as they ought.

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THE INTERNATIONAL CONFERENCE ON PUBLIC BATHS.

TO THE EDITOR OF THE SUN.—Sir: In this age of specialization it has come to pass that the first World's Conference of Public Baths is now being held at Scheveningen, the seaside portion of The Hague.

The Board of Estimate and Apportionment of New York City showed its appreciation of the movement by appointing me a delegate and sending an exhibit of our public baths, which included nearly a hundred photographs made for the occasion.

The exhibit for the borough of Manhattan was specially prepared for the occasion by Assistant Commissioner of Public Works William R. Patterson, and included an elaborate series of photographs, mounted on a stand specially constructed for the purpose, with movable slides, so as to show the pictures compactly arranged.

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THE INVISIBLE HELPER.

Suggestions Drawn From a Child's Escape From Death.

TO THE EDITOR OF THE SUN.—Sir: The interesting arguments of Mr. Elias Winston in his letter concerning "The Invisible Helper" lead one to conclude that he is an agnostic, but assuredly a truth seeker.

When one ventures to reason out the why and wherefore of apparently supernatural phenomena, which Mr. Winston does not, his asseverations must at least be substantiated by something like positive knowledge.

The fact, as Mr. Winston states, that a child may live to a ripe old age and then die, and that the child is undoubtedly not the same person, but it would seem to argue that this segment of existence we call life is not the whole story.

Unexplained Warnings.

TO THE EDITOR OF THE SUN.—Sir: The letter in your columns entitled "Invisible Helpers" might have been more convincing had the writer been better informed concerning his subject.

The hypothesis of invisible helpers certainly seems a better explanation of these cases than that advanced in the aforementioned article.

Another case which is vouched for is that of a man who was saved from an avalanche by the Alps by an apparition of his dead father.

THE DOMICILED PEREGRINE.

Romantic Journeys of a Lover of Way Trains and Little Ships.

TO THE EDITOR OF THE SUN.—I am not a day, but a little inclined to be indolent. I need to be shaken up occasionally, and the thing that stirs me up most is reading steamship and railroad literature.

I love the ocean, too, with its endless variety, every wave with its own individuality, new faces to be seen every time we look up from dreaming, but my safe refuge is in the new scenes and new people I like to travel.

Followed His Wives' Advice.

And Lost Three Lovely Little Made the Flat to Blossom Into Beauty.

TO THE EDITOR OF THE SUN.—Sir: Last Easter I received an advance notice of a good crop of corn, but I did not expect to reap the benefit from any similar change in the duty on corn.

Every Prospect Pleases, and Only Politics is Vile.

From the American Farmer, Hay and Feed Journal.

CAR WINDOW ETHICS.

The Danger of Allowing Fresh Air to Enter.

TO THE EDITOR OF THE SUN.—Sir: "C. D. W." queries concerning car windows is of general interest. It is only a person of a certain class who flings a window up to the annoyance of someone else, and he should be dealt with on his own plane of comprehension.

Rather than go into any analytical consideration of the matter it is far easier and much more efficacious to hold one's temper spread open between one's face and the back of the offender.

Views of the Manhattan Philosopher.

TO THE EDITOR OF THE SUN.—Sir: Your correspondent "C. D. W." says he is often puzzled when traveling in the cars, trains, etc., whether to close or open the window if there are others in the car.

The solution is simple. We must always yield to the weaker. A man who can stand the cold can stand the heat, but the reverse is not true.

Crime of Wanting to Breathe a Little Real Air.

TO THE EDITOR OF THE SUN.—Sir: I have read with much interest "C. D. W.'s" letter, and having had twelve years' experience on the road I can appreciate the seriousness of the subject.

It is my opinion that any one found opening a window in a railway car should be liable to a fine of \$500, or one year in prison, or both.

BEEF PRODUCTION.

Is It Cost So Great as to Leave No Reasonable Profit to the Farmer?

TO THE EDITOR OF THE SUN.—Sir: In view of the duty on hives I would call your attention to the estimate of cost of 100 pounds of beef, consisting of area of light, which are used in the electric furnaces.

Table with 2 columns: Item and Cost. Includes 100 pounds of beef, 100 pounds of hay, 100 pounds of cottonseed meal, etc.

Total cost \$108.85. NET RETURNS. Matured steer 1,200 pounds at \$7.75 \$9,300.00. 200 pound hog at \$7.40 \$1,480.00.

Russian Scientist Elected.

Prof. Bebelubsky Heads Association for Testing Materials.

The International Association for Testing Materials closed the session of its sixth world's congress at the United Engineering Society Building yesterday with the election of Prof. N. Bebelubsky of Russia as international president.

Farm Method Exhibition.

Geographical Society to Show Western and Southern Views.

On Monday the American Geographical Society will open an exhibit of photographs showing scenery in the western half of this country and in the Southern States.

Principals Greet Maxwell.

Women Send Good Word on His 25th Anniversary as Head of Schools.

The Women Principals Association sent a letter to City Superintendent Maxwell yesterday commending his service to the public schools for the last twenty-five years and congratulating him on the anniversary of his appointment as the head of the Brooklyn schools.

EXPLOSIVE INVENTOR ADDRESSES SCIENTISTS.

Dr. Samuel Eyde Speaks on the Use of Atmosphere's Nitrogen.

HELPS LIFE OF BIG GUNS.

Norwegian Expert Tells of New Industry That Aids Armies and Navies.

Dr. Samuel Eyde of Christiania, Norway, gave an address at the Museum of Natural History yesterday before a large audience of American and foreign scientists.

The lecture was illustrated with photographs and charts, showing the development of atmospheric nitrogen for the manufacture of fertilizers and products in the explosives trade.

The invention is the patent of Prof. Birkeland and Dr. Eyde, but the new industry has been developed by the inventor, who died in 1900.

The atmosphere surrounding us is composed of nitrogen and oxygen, to create by the union of these two gases new chemical combinations that can be utilized in the world's household is the task of the new industry.

In short, describing the difference between previous methods and those of Birkeland-Eyde it must suffice to say that the latter have applied large quantities of electric energy in the electric arc and have first found out the most method of doing this while it was previously believed that it was small quantities of energy that gave relatively the best results.

It is on that assumption that the apparatus employed by them was constructed. The invention of Birkeland-Eyde completely revolutionized the theory of the process of atmospheric combustion.

In order to explain the Birkeland-Eyde method it is necessary first to describe the flames, consisting of arcs of light, which are used in the electric furnaces.

The formation of the flame occurs through an arc of the electric flame being formed between the points of the electrodes, which are close to each other. The electric arc that has been formed moves on account of a magnetic field with great velocity perpendicularly to the lines of force, and the electric arc's foot drawn back from the points of the electrodes.

When the length of the electric arc increases the electric resistance becomes greater and the tension increases, until it becomes so great that a new electric arc starts from the points of the electrodes.

With alternating current all these arcs are formed in opposite directions and appear to the eye to be circular discs.

In this flame is discovered a powerful technical means for the oxidation of the nitrogen of the air.

The interior of the furnace is lined with fire bricks through the walls of which the air, under pressure, is admitted to the flame.

With this furnace we have obtained such steady working that it burns for weeks without any regulation worth mentioning. It may further be stated that the maintenance of the furnace and its repair is simple, as the most exposed portions, the electrodes, only require to be changed every three or four weeks, and then only a small part of the refractory masonry every fourth to sixth month.

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