

SUCCINCT NEWS OF THE SCIENCES.

ELECTRIC WAVES ACROSS ATLANTIC AND MESSAGES.

Light Kills Bacteria—Electricity Destroys Germs Even Better Than Sunlight—Sardines Deserving French Coast.

When Mr. Marconi started his great power station at Poldhu, in England, for the purpose of transmitting wireless messages across the Atlantic, many feared that the electric waves from this station would interfere with those of shorter range, used in communicating between ships and between shore and ship. Recently Professor Fleming has experimented with the Poldhu apparatus, and reports that his experiments appear to him to afford a complete demonstration of the truth of Mr. Marconi's statement that the waves sent out from his power stations do not and will not interfere with the reception of messages from his apparatus as placed on board ship.

Killing Bacteria With Electric Light.

It has been found that the bactericidal effect of the arc light is much superior to that of sunlight, because the very rapid ultra-violet radiation from the sun is absorbed by the atmosphere. The rapid oscillation high-tension arc, particularly when formed between iron points, gives off an abundance of ultra-violet rays of extremely short-wave length. Quartz is transparent to this light, of which it transmits 90 per cent., but gelatine and an oxide of iron, even a thin film of it, are entirely opaque. Ice is as transparent as air to these rays, but blood is opaque, and accordingly, in applying them to the human body, they are passed through ice pressed upon the skin affected so as to make it bloodless.

Sardines Deserving France.

An unexplained phenomena of sea life has caused great loss to the sardine fishers and packers on the west coast of France. The French sardines have long been known everywhere for their superior quality, but during the past season they seem to have deserted their favorite haunts, and most of the few caught have been too large for packing. No satisfactory explanation of the disappearance of the fish, upon which an extensive industry was based, has been offered. Some of the packers say that the fishermen themselves are to blame, because the price of bait, imported from Norway and Sweden, having increased, they neglected to strew it in the usual quantities over water, and thus the shoals of fish were not attracted to the coast.

Electricity and Memory.

At a recent meeting of the Royal Society of Canada, Sir James Grant, M. D., presented a paper on the neurons and cells of the brain in their relation to the faculty of memory, and, after stating that, as with the other tissues of the body, so with the cells of the brain, evidence of lessening power and activity appears with passage of years, he added the very interesting statement that the line of present investigation demonstrates that the electrical current through the brain rotates its molecules to such a degree as to produce a most notable physiological response in the direction of improved memory.

Gigantic Electric Arc.

An 80,000-volt electric transformer was recently installed at Butte, Mont., for the local lighting and power company, the distance over which the current is transmitted being 60 miles. During the insulation tests of the transformer the voltage was run up to 160,000, and at this pressure an arc was formed between the ends of the cables and the transformer tank, over a distance of five or six feet. But India rubber disks fixed on the cable terminals prevented the formation of the arc. When 80,000 volts are used there is no brush discharge, and the disks are not needed.

Wireless Telegraphy on Mountains.

French engineers have lately made successful tests of wireless telegraphy between the lofty observatories on the crown of Mont Blanc and the Valley of Chamounix. It had been feared that the absence of moisture in the frozen surface might interfere with the earth connection, but no such trouble was experienced. The only difficulty arose when the alternating current dynamo of the electric light system in Chamounix was at work. At such times the wireless messages could not be transmitted nor received.

According to recent experiments by Stanislas Tetard, French physicist, agriculture, wheat and other cereals can be protected against the ravages of insects, which are particularly fond of the grain when its sprouts are just pushing above the ground, by treating the seeds before they are sown with a mixture of coal tar, petroleum and phenol. This treatment, which delays the growth of the seed for a day or two, but causes no damage, imparts an odor that is insufferable to the insects, but which disappears after the sprouts have attained a larger growth, when they are no longer subject to attack.

Quartz Thermometers.

In France Mons. Dufour has succeeded in making thermometer tubes of pure quartz. Not only are these tubes exceedingly transparent, but their resistance to heat and other advantages make them superior to glass for thermometers intended to measure high temperatures. In St. Louis, Mo., the thermometer tubes take the place of mercury, and the scale reads from about 465 degrees Fahrenheit up to 1,000 degrees. It could be run up to 1,800 degrees, for quartz does not soften below that temperature.

Hydrogen as an Illuminant.

The production of oxygen and hydrogen on an industrial scale by the decomposition of water with electrolytic apparatus in Germany has led to the suggestion that hydrogen thus produced may find a wide field of employment as a lighting agent. It is now used for inflating military balloons. For lighting purposes it is contained in steel cylinders. With a proper burner it is estimated that each full train, exclusive of the locomotive, develops nearly 5,000 candle-power light.

Electric Light From Car-Axles.

The "axle light" system is in use on the trains of the Atchafalaya, Topoka & Santa Fe Railroad on an extensive scale. Each car has its own storage batteries supplied with electricity generated by the action of the wheels, and the locomotive headlights derive their illumination from the same source. It is estimated that each full train, exclusive of the locomotive, develops nearly 5,000 candle-power light.

Electric Arc Under Water.

Experiment has shown that an electric

arc can be employed under water for fusing metal. The intense heat turns the water surrounding the arc into steam, thus forming an insulating cushion of vapor. It has been suggested that with proper apparatus the electric arc could be employed by divers for quickly cutting through large chain cables or iron plates under water.

Even Buds Grow Old.

According to a Government botanist at Washington, there is reason to believe that buds share in the growing old of the parent plant. He illustrates the meaning in this way: Suppose the average life of an individual plant—say a tree—to be 100 years, then a bud removed when the parent plant is 50 years old will also be virtually 50 years of age, and if transplanted by grafting will be able to live on the graft only 50 years more.

Danger From Gas Engines.

Gas poisoning from gas engines has become so common that German authorities urge that cylinders of oxygen be kept near, and that engineers be taught to apply inhalations to resuscitate victims.

BAD LANGUAGE.

Protests Against the Increasing Use of Profanity.

(From the New York Herald, March 1, 1908.)

Writing from Halifax George Wright, whose communication is printed this morning in the column of letters from Herald readers, declares the increasing use of profanity in the United States, and especially in the east, is a disgrace to the nation. So common has the habit become, he adds, that playwrights and novelists do not refrain from having some of their characters indulge in it.

Our correspondent is not amiss in asserting that the time has come to call a halt on the use of profanity. No gentleman will soil his lips with disgusting expressions; all others should be taught there is a law to punish them for such unseemly language in public places.

Halifax, N. S., March 9th, 1908.

To the Editor:—I notice the following item from "Chicagoan" giving his views of how profane and other bad language exists in New York, and stating that it is a good deal worse there, than in the west. I can vouch for this fact, as on my visit to the west, a few months ago, both in Canada and the United States, I can say, that although there the flow of profanity is disgusting, still, I did not hear it to the extent you will hear it in the east, where it seems to have become epidemic. Boston seems to be keeping pace with all other cities in this direction. The most flagrant of all expressions you will hear is the name of the Almighty and the Saviour. You can hear this from men and youths in almost any direction you may go, and it is time that every effort should be taken to prohibit this, as it is really becoming a disgrace to the nation. The stage is becoming one of the greatest distributors of profane and bad language. Owing to its use having become so common amongst the people, the playwright has come to think that a production is not complete without profanity, and therefore he takes the license to use it. Of late in depicting western plays, profanity has been introduced as it existed in the mining towns. This should have been prevented at the start as it only encourages profanity. I think, therefore, the stage has done a great deal towards increasing the flow of profanity at the present time. The heads of the police department in St. Louis, Chicago and other cities have now come to the conclusion that the police themselves are among the cause of the extensive use of profanity, and are aiming at them as being the right ones to start in to check it, and this without doubt is true. Now why not also experiment on the theatre. There are also the writers of novels and books of all classes to be dealt with, and I think they should also have come to think that their publications are not complete without using profanity or other strong words. The time has come when a halt should be made if there is to be any consideration given as to the respect of our language and want to rid the country of this most obnoxious habit which seems to be steadily growing and becoming so familiar amongst the youths of the whole continent. Yours truly,

Geo. Wright.

To the Editor of the Evening Telegram:—I have been in this city only two weeks, but in that time have heard more bad language than in my home city, Chicago, in a month. I cannot understand why they give us westerners the reputation of being profane when the language used by the people of the east, especially New York, is the most shocking I have ever heard. I have not gone to a single New York place of amusement where I have not been compelled to listen to language that would not be tolerated for a minute in any city in the west. I have seen there would immediately be arrested. It is not the men alone that I complain of, New York women, too, seem to think nothing of using language that, were I a woman, would make me blush with shame for my sex. Several times I have found it necessary to leave my wife out of a restaurant because of the profanity on the part of the female patrons of the place. What is the matter with New Yorkers. Is there no religion in this city?

Chicagoan.

Lenten Food.

He's a little fellow. He measures five to ten inches. In Maine he surpasses himself. He has been known to exceed a foot in length.

He eats shrimps and other small crustaceans.

He is found from Virginia to the Gulf of St. Lawrence.

He sometimes enters streams and becomes landlocked.

In color, he's a transparent greenish shade above, with silvery sides.

In 1822 Captain John Smith wrote: "Of smelts there is such an abundance that the salvages do take them in the rivers with baskets like sieves."

This little fish (osmerus mordax) is usually found after being cleaned, washed and wiped, and is delicious if dipped in egg and bread crumbs first. They are best "green," that is, not frozen.—The Smelt.

Singular Effect.

Policeman—What are you shivering about?

Prisoner—You're g-g-ging to put me in the sweatbox!

Wilson—When your wife caught you hugging the chambermaid I suppose she was speechless with amazement. Waggon—Speechless! Say, you don't know my wife.—Boston Record.

A Lay of Ancient Rome.

(N. Y. Sun.)

Macaulay had just taken his pen in hand.

"But," they cried, "the Wellesley professor of rhetoric condemns bridge."

Herewith he doubted whether to let Horatius hold it or not.



DAINTY DRESSING SACQUE.

No. 5642—No garment in the woman's wardrobe can approach the dressing sacque in convenience, utility and comfort. A broad collar extending out over the shoulder gives a distinctive air to this one. The back is gathered into the figure and the fullness in front may be confined by a belt or not just as the wearer decides. Made of French flannel, outing, or for warm weather, China silk, dimity or lawn trimmed as illustrated it would make a charming and comfortable addition to the wardrobe. The medium size will require 3 1/4 yards of 36-inch material.

Ladies' dressing sacque. No. 5642. Sizes for 32, 34, 36, 38, 40 and 42 inches bust measure.

The pattern here illustrated will be mailed to any address on receipt of ten cents.

Address, "Pattern Department," Times Office, Hamilton.

Fun for Times Readers

Mother's Almanac.

(Lippincott's Magazine.)

I tell you, when it comes to dates, my mother's just the boss!

She tells me all I want to know 'Thout ever gettin' cross.

You'd think she'd get mixed up sometimes.

At school I know I do—'Bout Washington and Plymouth Rock.

And 1492.

But mother says: "The war with Spain."

The year you all had chicken pox, Exceptin' Sister Kate.

"The Boer war in Africa—That was a dreadful thing—Began in '99, I know."

For Jack was born that spring.

"In '98 the Spanish ships—Were sunk in Cuba channels, 'Twas summer, for your children had Just changed your winter flannels."

"In 1904, my dear, The Russians fought the Japs, That year was very cold, and you Had chilblains and the chaps."

There's six of us, and we're mixed up With history just that way. Sometimes it's measles, croup or mumps.

But there's no date that ever stumps My mother, night or day.

THE DENTIST—Now, open wide your mouth and I won't hurt you a bit.

THE PATIENT (after the extraction)—Doctor, I know what Ananias did for a living now.—Home Herald, Chicago.

LOSING NO CHANCE.

Ketchum A. Cummin—Miss Wellup, if you have no engagement for to-morrow evening—

Miss Wellup—I have none, Mr. Cummin. I'm not engaged any evening.

SINGULARITY.

"Singular, isn't it?"

"What?"

"The present is only the future we had in the past."—Boston Transcript.

MILK FOR SCHOOL CHILDREN.

A very commendable feature has just been introduced into several German schools.

Automata were placed in the courtyards, which for a small coin deliver hot or cold milk.

First, one procures a cup which falls out of an opening and which is made of waterproof strong paper; then a pedal is pressed down and the cup is filled with pure milk at any desired temperature.

Heating is done inside entirely automatically by liquid fuel.

The cleaning and rinsing of the tubes and tanks through which the milk runs is also effected automatically.

The success with these patented automata has been very great and they will be installed in many more schools of the German Empire.—Municipal Journal.

TOO BAD.

"Hello, Cholly, you look depressed. Some one been getting the better of you?"

"Yes, Millions' motor smells stronger than mine."—Sloper's Half Holiday.

THE FOOT is never known by his silhouette.

ORANGE JUICE AND HEALTH

For Stomach and Skin

Few of us realize what an important part the skin plays in keeping us well or making us ill.

The millions of tiny glands, or pores, are intended to rid the system of waste matter, which the blood brings to the skin. It is a well-known medical fact that the healthy skin carries off more Urea or waste matter than the kidneys. Just think how much poison remains in the system when there is any skin trouble.

The skin and stomach are intimately associated. Find a person with a dry, harsh skin and you will find one who suffers with indigestion or constipation, and both, usually.

Both may be relieved by a judicious use of orange juice. Both can be cured by taking the juice of an orange every morning before breakfast, and taking "Fruit-a-tives" at night. "Fruit-a-tives" are fruit juices in tablet form. The fresh juices of oranges, apples, figs and prunes are separated from the pulp, and then combined in such a way that the medicinal action is intensified.

Orange juice alone will not cure Skin, Stomach or Bowel troubles. But when taken in connection with "Fruit-a-tives," a positive cure results. "Fruit-a-tives" may be obtained at all drug stores, or will be sent on receipt of price—50c, a box of 6 for \$2.50. "Fruit-a-tives," Limited, Ottawa.

KINGS WHO COULD EARN A LIVING.

If all the crowned heads of Europe should be dethroned, most of them, if not all of them could make a living in some other pursuit.

The emperor of Germany, who is the proprietor of a most important porcelain factory at Cadiz, from which, it is said, he derives a yearly profit of \$50,000.

King Edward VII. of England is a shrewd farmer, and if he had not been born to the royal purple could have made a living as a famous stock breeder. He has the reputation of being the best judge of pigs and one of the best judges of poultry in all England. His profits from his produce are reckoned at \$200,000 a year.

The reigning prince of Lippe-Detmold deals in butter and eggs, while a prosperous brick factory increases his yearly profits.

The King of Wurtemberg is the proprietor of two hotels in his kingdom, which net him nearly \$50,000 a year, while King Peter of Serbia runs a barber shop, owns a patent medicine factory, and conducts a motor car agency in his capital.

It is said that King Victor Emanuel II. of Italy is so passionately fond of the automobile that it were necessary he could readily earn his living as a chauffeur.

Emperor Owns China Factory.

Emperor Francis Joseph of Austria, owns a china factory in Vienna, which is one of the most famous in the world, and employs 1,000 skilled workmen; and the king of Saxony conducts a similar business, though, of course, in a much smaller scale.

King Leopold of Belgium, whatever may be said of him because of the Congo rubber trade notoriety, was actually a millionaire before he came to the throne.

Queen Anne, widow of the recently assassinated King Carlos, is the only royal M. D. in the world, and stories are told of her practicing the profession of medicine among the poorer classes of Lisbon, "incognito," as she is called.

"And how much do you expect to get for your boasts at Waterford fair?" he asked.

"Sure, an' if I get \$40 a head I shan't do badly," said the Irishman.

"Ah, that's a sample of your country," said the Englishman, severely.

"Take those better to England and you'd average \$70 a head for them."

"The Irishman laughed.

"Just so, yer honor," he said, "and if you were to take the Lake of Killarney to purgatory yer would get a guinea a drop."—Washington Star.

Fletcher's Rules.

Horace Fletcher has printed in a book his rules of life and eating, summarizing them up thus:

Don't eat when not hungry.

Don't ever get angry.

Don't make work in a hurry.

Don't tolerate worry.

Don't ever waste good taste.

Don't pass it by in haste.

Don't gobble pure good food.

Don't fail to feed as should.

Don't make work of exercise.

Don't make light of good advice.

Don't never half take breath.

Don't squander an early death.

Don't miss to do your best.

Let nature do the rest.

Ananias' Calling.

The Dentist—Now, open wide your mouth and I won't hurt you a bit.

The Patient (after the extraction)—Doctor, I know what Ananias did for a living now.—Home Herald, Chicago.

Nothing Doing.

Photographer—Madam, would you not like a picture of your husband taken with the cathode rays?

Mrs. Rounder—Oh, no; I'm able to see through him quite well enough now, thanks.

It Followed.

The following question was asked a class of small boys who were studying Scripture history:

"Where did John the Baptist live?"

One small boy answered, promptly, "In the desert."

"Quite right," was the reply. "Now, what are people called who live in the desert?"

"Deserters, sir," was the answer.

A Lay of Ancient Rome.

(N. Y. Sun.)

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"But," they cried, "the Wellesley professor of rhetoric condemns bridge."

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