

AN ELECTRIC SLEEP

Current Used as an Anaesthetic by Leduc of Paris.

DRUGS NO LONGER NEEDED

Danger Resulting From Use of Opiates May Be Avoided—Electricity Kills by Decomposing Blood and Poisoning It.

NEW YORK, Sept. 19.—Discussion of Professor Leduc's reported discovery of a method of inducing electric sleep was taken up yesterday by Walter G. Clark, president of the Barker-Clark Electric Company, and an electrical engineer of many years experience, says the Times. He, with Professor Parker, of Columbia University, discovered the new helium lamp, concerning which there was considerable discussion in the newspapers and scientific journals a few months ago.

"As I understand the cable to the Times from Paris," said Mr. Clark, "it seems that Professor Leduc has discovered a method of inducing sleep simply by the use of some thirty-five volts applied to the head intermittently. For a number of years physiologists and surgeons in this country have known and used to some extent electricity to carry drug anaesthetics into the body, thus producing anaesthesia without obliging the stomach and intestines to come in contact with the drugs. But Professor Leduc has certainly discovered something wonderful if he has found how to do without the use of these drugs at all.

Electricity to Apply Drugs.

"Cataphoresis, which means electric anodes, is simply the transmission of a liquid by electric currents. For instance, if it is desired to take all feeling from the legs with cocaine so that an operation may be performed, this may be done by applying the drug on the positive pole to the base of the spine, the negative pole being at the foot. The same result would be accomplished by a hypodermic injection in the leg, but many people object to such an injection, as it sometimes causes swelling and other complications.

"But this all rests on the use of drugs for anaesthetic purposes, cataphoresis is simply a new way of applying them. I notice that in the interview with Professor William Hallcock of Columbia, it is stated that Dr. E. W. Scripture discovered a method of producing local anaesthesia simply by electric currents. I had not heard of that.

"There is an impression abroad that Americans usually belittle scientific discoveries made in other countries. If Professor Leduc has found a way of producing anaesthesia, even to the point of unconsciousness, simply by using electric currents, he has advanced a long step forward, and his discovery is something stupendous.

Current Decomposes Blood.

"For many years I have carried on experiments to find out the effects of electricity on the blood, and I have found that it causes decomposition to go on within the veins and arteries. After a current has been passed through the blood, I have found in the veins and arteries hydrochloric acid, hydrogen gas, chlorine gas, and acetic acid. I have examined many a man's brain after he has been electrocuted, finding always a lot of microscopic gas bubbles in the brain tissue. These bubbles are found to be hydrogen with a trace of chlorine.

THE ENCRACING SEA.

Ocean Gradually Eating Off the Edge of Many Lands.

Low Current Just as Deadly.

"My experiments have not been conclusive, but I have found that a few hundred volts applied for a considerable time will produce death just as surely as a high potential for a lesser time. In every case investigated, death came from the breaking up of the tissues and the blood, due to electrolysis, which a long low current brings about just as certainly as a quick high potential.

GROWTH OF THE TROLLEY

The Change It Is Effecting in Our Lives and Customs.

Indianapolis News.

The executive committee of the Central New York Farmers' Club has announced the proposed calling of a convention to take cognizance of the condition of the farmers of that state. They do not want cognizance taken. Within the last few years the drift of population has been, they say, from the cities to the country districts. Farm lands are not depreciating, but rising slowly; the farmers are getting from a fourth to a third more for their products than they were 15 years ago; there are no bandits on the roads to be petted, patronized or made political capital of.

What's Mine is Yours, and What is Yours is Ours.

GORDON

Gordon de Luxe \$3

IS the only Hat better than a Gordon. May be a little too good, \$4

what for the sturdy tone of the New York Farmers' Club. This correspondent speaks of a few links in the chain that he must next year make possible a continuous trip by trolley from Wheeling to Chicago or St. Louis. A new bridge is to be put across the Mississippi River for trolleys exclusively.

The trolleys' freight traffic increases constantly. Small freight and perishable products are theirs already, but even bulk freight is coming their way, and what the full development may be can only be speculated on. All sorts of passenger service are in full flower—buffet and chair cars and sleepers, with limited trains and special, while for luxury the steam service leaves nothing to pattern after.

More interesting, however, is the correspondent's testimony—like so much that has gone before—as to the social and commercial effects of this rapidly growing system of intercommunication. Briefly: The small towns which thought they were going to be hurt have been helped. The country store-keeper who thought he was to be ruined, has braced up, got rid of his old stock, put in new things, added to his variety as well as his styles, and, behold, he is selling more than before. The competition with the city stores, which he thought was going to ruin him, has thus met. People want to the cities formerly because they could not get the latest things in clothes, etc., in the country store. But now they can.

While there has thus been given an impetus to trade and banking in country towns, there has been at the same time a vast impetus given to the social life of the rural region. The boy on the farm can now do his work, and yet in the evening go to the theater or a lecture or a dance in the city if he likes, and be at home in time for his night's sleep, though it be somewhat shortened.

So not only the boy, but the "old man," is coming off to the city or to the country town. And this coming, as well as the increased varieties and fresh styles of things in the country store, results in the farmer wearing "city" clothes, which he finds he can now get as well as the exclusive type that he could only get formerly.

THE ENCRACING SEA.

Ocean Gradually Eating Off the Edge of Many Lands.

Charles F. Carter, in Technical World.

It is not necessary to be an engineer or even a geologist to be able to perceive that the sea is advancing upon the eastern and southern coasts of the United States. Submerged stumps, some of them of trees cut down by man, and lagoons and marshes submerged all along the Coast from New Jersey to Florida within the memory of men now living and the decreasing power available for mills and factories, are all that encroach upon the land of the advancing water. Then there are the keys which skirt the coast all the way around Florida and on to Alabama. The keys are the high places on lands that have been completely submerged. They are separated from the mainland by shallow sounds from a third of a mile to five miles wide, which were the low-lying lands that first succumbed to the onslaught of the sea. West of Mobile Bay the keys have got out from 10 to 15 miles from the mainland.

West of the mouth of the Mississippi the sea has encroached upon the land from 50 to 100 miles. Here there are neither keys nor their big brothers, the islands. One interesting evidence of the steady advance of the sea upon the southern coast was found by the engineers building the jetties at the mouth of the Mississippi. On Belle Isle, a former outlet of the river, was an old Spanish fort built 200 years before. When the engineers found the water was 10 feet deep over the door sill of the magazine. Even if the water had been level with the sill when it was built, the sea would have reached the rate of subsidence must have been five feet a century. The magazine was level and there were no cracks in the walls, showing that it was settling evenly beneath the waters. It continued to sink while it was under observation during the building of the jetties. But the most singular feature of the land around the mouth of the Mississippi is not that it is sinking, but that it also stretches like wet rawhide.

On the other side of the Atlantic the coast line is retreating before the ceaseless onslaughts of the waves, even more rapidly than here. Forty years ago the area of Great Britain was 56,954,850 acres; today the figures are 54,748,927. The difference, 2,155,323 acres, represents the amount that has been swallowed up by the sea. England alone has surrendered 524 square miles of her territory to the waves within the last 100 years. More recently the advance of the waters has been much more rapid, averaging for the last 40 years 12 1/2 acres a year. The ravages of the sea in 1903 were almost unprecedented. Many historical towns, such as Ravensburgh, where Henry IV landed in 1399, have been submerged. Off the Yorkshire coast alone there are 12 submerged towns and villages.

On the coast of Wales the sea is advancing inland at the rate of six feet a year. Ireland is also being rapidly dissolved into the ocean. In the south-east corner of Waterford County the coast is ground away at the rate of eight feet a year, on the average. The most serious aspect of the continuous shrinkage of the United Kingdom is that there seems to be no way to check it. At Clonsannagh, Ireland, a sea wall was built a dozen years ago, and promptly demolished. Since then the sea has been allowed to take its course. Along the Holderness coast in England protective works have been put up at a cost of \$15,000 a mile, which is three times the value of the land protected. At Brighthelmton it has cost \$500,000 to protect one mile of coast.

Important Announcement to Depositors in the Oregon Trust & Savings Bank

Every Dollar Spent at the Golden Eagle This Week Means 50c to the Depositors of the Oregon Trust & Savings Bank

About one-half of the liabilities of the Golden Eagle Department Store, a sum amounting to a trifle over one hundred thousand dollars (\$100,000) is owed to the Oregon Trust & Savings Bank. The entire stock of the store is now being sold by the assignee in charge, for the benefit of the creditors. It can readily be seen that out of every dollar expended at the Golden Eagle Store, one-half of the amount goes to help swell the funds out of which the depositors of the defunct bank will be paid. The more money you spend at the Golden Eagle this week, the nearer the Oregon Trust & Savings Bank will come to paying its depositors 100 cents on a dollar. Trade at the Golden Eagle this week and urge your friends to do the same, thus helping out the thousands of depositors, whose names are enrolled as creditors of the Oregon Trust & Savings Bank. Get your money back. The Golden Eagle's Assignee Sale will help you do it.

Sensational Values Offered to Golden Eagle's Patrons This Week

As fast as goods are sold and lines are depleted, hundreds of lots are condensed and prices on the same mercilessly reduced. See Sunday's big ad for hundreds of special prices for this week. Thousands of lots go unadvertised, which embrace values equal to or greater than those told of in the public print. Come down and mingle with the crowds this week and do your shopping at the Assignee's Sale of the Golden Eagle's stock.

EXTRA SPECIAL--Sensation for Glove Buyers A Monster Sale of Manufacturers' Mended Gloves Values up to \$2.50 for 59c Pair

59c The Golden Eagle glove buyer was fortunate in securing this "plum" for our store clientele. Numerous Eastern "big-store" buyers were reaching for it, but our representative "saw it first" and got the goods. It's well known among glovemakers that thousands of pairs of gloves are returned every season to the factory for repairs—a slight rip or a mile of a tear; a bit of an imperfection that has passed the scrutiny of a watchful checker is discovered when the gloves reach the purchaser, or vigilant chief of the glove department. They won't pass muster as strictly "simon-pure" perfect with our examiners, and are returned to the factory. Just so with all stores all over the country. Result is an accumulation at the factories of hundreds of pairs of slightly imperfect gloves which they are willing to give to a good year-round customer "for a song." Just before this store's financial troubles our New York buyer had secured the accumulation of a large Eastern glove factory's mended gloves, splendid values up to \$2.50—we now offer them at exactly net cost to us, at Assignee Sale. Choice.....

\$111,000.00 Worth of Seasonable, Stylish Merchandise in a Mighty, Merciless Massacre---Doors Open at 9 A. M.

By Order of J. P. KENNEDY, Assignee of the East Side Cars All Stop in Front of the Doors All Cars Transfer Direct to the Doors ENTIRE BLOCK ON YAMHILL, FROM 2ND TO 3RD.

The Store That Made the Corner Famous at Third and Yamhill Streets

most serious aspect of the continuous shrinkage of the United Kingdom is that there seems to be no way to check it. At Clonsannagh, Ireland, a sea wall was built a dozen years ago, and promptly demolished. Since then the sea has been allowed to take its course. Along the Holderness coast in England protective works have been put up at a cost of \$15,000 a mile, which is three times the value of the land protected. At Brighthelmton it has cost \$500,000 to protect one mile of coast.

Across the English Channel the problem of saving the country from the sea is quite as serious as in England. Belgium spent \$14,350,850 for protection from the waves from 1902 to 1904, and is now preparing to build a sea wall along the entire coast, 50 miles in extent, from France to Germany, literally forced to this huge undertaking. At Point de Grave, on the left bank of the Gironde, France, the lighthouse has been moved three times to save it from the waves. Although \$2,400,000 has been spent on protective work, the sea has eaten away a strip of coast 2000 feet wide in this vicinity in the last 75 years. Germany is spending millions to check the advance of the water front of Mecklenburg is melting away at an average rate of eight feet a year.

Holland, which was chiefly stolen from the sea, and where people by the hundred thousand have been drowned repeatedly in inundations in the last 1500 years, still threatens to return to its former estate. Careful measurements made by the Dutch Government show that in the last half century the middle of the town, is now on the beach. Several other villages, which appeared on the maps of 1871 are now three-quarters of a mile out to sea. Greenland is being worn away so much that the scanty population of the island continent is obliged to construct expensive works on all sides to protect its seaports.

Visit Rock Island Office.

R. G. Brown, assistant general freight agent for the Rock Island, with headquarters at St. Paul, and Theodore Brent, of Chicago, assistant to Third

Protection on the east is not so essential, yet if the management of the buildings will permit, a narrow belt of trees at least will be desirable. It has been found species most suitable for windbreaks and shelter-belts are green ash, boxelder, common cottonwood, lanceleaf cottonwood, Russian olive, jack pine, white spruce, white elm, hickory, balsam of Gilead, almond, willow, Western yellow pine, Rocky Mountain juniper and blue spruce.

Next to protection, the most important reason for tree-planting is the need of local supplies of fuel. The species which are best suited for fuel production in this region are the cottonwoods, aspen, poplar, willow, since they will produce the greatest quantity of wood in weight per acre in the least time. For fence-posts, the planting of green ash, diamond willow, common cottonwood, Russian olive, Rocky Mountain juniper and Western yellow pine is recommended. Green ash and bur oak furnish material valuable for fence posts.

TREE-PLANTING ON PRAIRIE

Forest Service Tells Why and Which Species Are Best.

OREGONIAN NEWS BUREAU, Washington, Sept. 20.—Extensive investigations of irrigated land in the Western States to determine the possibilities of tree-planting on reclaimed tracts have just been completed by experts in the Forest Service and, according to the first reports, the judicious planting of certain trees around homesteads and along canals will greatly increase the value of land where irrigation has played such a prominent part in development.

INVENTIONS SUPPRESSED

Telegraph Companies Now Digging Up Buried Devices.

It is known to those who have taken an interest in such matters that corporations and wealthy individuals have not only seized upon or purchased for a song the valuable product of the brains of poor inventors, but they have also often purchased inventions at any price for the purpose of suppressing them for the reason that their adoption and introduction would destroy established devices, even though the eventual value would be immeasurable. Now it is ascertained that the two great telegraph corporations are deliberating over unearthing from their tomb certain automatic telegraph instruments which were buried for the sole reason that their adoption would have meant an expensive revolution throughout all the innumerable ramifications of their systems. No invention which saves labor or multiplies the capacity for communication or transportation, or which adds to the

comfort or safety of the public, should be suppressed or ignored. Long years after the adoption of the airbrake, and years after railway employes had prayed for its application to freight trains, Congress enacted a law, at the instance of labor organizations, providing for this application, but allowing a designated period to effect the great change. That period elapsed and still the airbrake was only sporadically applied, and investigation and further action were necessary before all the railway companies would yield. The change, though expensive, has saved the lives of untold numbers of railway employes, but this possibility did not seem to be of importance to the corporations. A new engineer, or fireman, or brakeman could be brought cheaper than a new airbrake.

This is instanced merely to show the reason why good new inventions are refused, or purchased and suppressed by corporations because of the immense first cost of their general introduction. The labor world itself has no reason to be afraid of such inventions. There is always an avenue for the employment of the willing, skillful and industrious. Workmen no longer, as in the old days of invention, assemble to smash labor-saving devices. These invariably have saved to the benefit of the workman as well as the employer, and in truth it is due to the machine, and the superior intelligence required for its successful operation, that the workman and workwoman of today are advanced to the standard of organizers and educators of themselves in formal movements having a vital bearing upon their present and future.

Feeding Cows Powdered Milk.

An endless-chain arrangement that on its face appears to be the most economical scheme ever devised has been invented by Professor Oscar Erf, of the Kansas State Agricultural College. Professor Erf takes the milk from the cows on the college farm, converts it into a powder, and feeds it back to the cows, making what is declared to be the cheapest of all cow foods. There is one flaw in the chain, however. Professor Erf does not maintain that his new food will entirely satisfy the appetite of the cow. The food invented by Professor Erf is made of buttermilk. He has perfected a system

of drying buttermilk and then turning it into powder. This dried buttermilk contains about 70 per cent of protein, twice as much as cottonseed meal, and can be manufactured for a cent and a half a pound. Thus a food twice as rich as cottonseed can be manufactured at approximately the cost of the latter. One hundred pounds of buttermilk will make from nine to ten pounds of the finished product, and, as the estimated waste of buttermilk in the creameries of Kansas is half a million pounds daily, it is figured that by the adoption of this process a saving of \$60,000 can be made yearly in Kansas alone.

The Reporter's Version. Lippincott's. How reporters sometimes make absurd mistakes in gathering news was humorously illustrated not long ago, when Helen Hall, Upton Sinclair's Utopian colony, burned down. Among those injured was Mrs. Grace MacDowan Conke, the well-known author. A youthful reporter on one of the big New York dailies, eager to get his story in the first edition, wrote hurriedly that "Grace MacDowan, the cook, suffered from serious burns."

R R R RADWAY'S READY RELIEF

A Family Remedy For Over Sixty Years. Cures and Prevents Colds, Coughs, Sore Throat, Influenza, Bronchitis, Pneumonia, Swelling of the Joints, Lumbago, Indigestion, Rheumatism, Neuralgia, Headache, Toothache, Acid Stomach, Difficult Breathing. Sold by druggists. Radway & Co., New York.

