

# THE ELECTRICAL WORLD

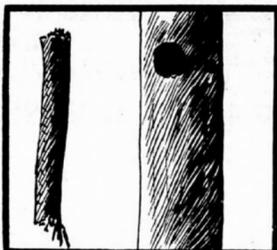
## LIGHTNING'S FREAK.

Curious Accident to Water Pipe During Thunderstorm.

As a matter of interest and instructive value to your many readers, I am reporting an unusual and significant incident that occurred at the branch office of the Scientific American at Washington, D. C., during a thunderstorm on the 11th day of July, 1906, writes a correspondent of that journal.

During the progress of the storm, lightning struck the electric wires that supply the office with light and power. The fuses of the various lights and fans were instantly burned out, and simultaneously therewith a torrent of water poured from the floor of the building where the wires entered, evidently flowing from the water pipe supplying the various radiators of the water-heating system which, as is usual, had not been cut off for the summer months, since it is not generally considered necessary or even desirable to do so.

Careful inspection disclosed the fact that the electric wiring was close enough to the water circulation pipe to permit electricity of high voltage to jump to the fine ground connection which the water pipe afforded, and in doing so it burned a hole fully



Hole Burned in a Water Pipe By Lightning.

three-eighths of an inch in the water pipe, with the result above noted. I am inclosing you a section of the pipe showing the holes of which there are two, a large and a small one, and also a piece of the wire. The torrent of water which immediately followed the discharge shows that the larger hole was the result of the discharge. The smaller one may have been produced by a ground during the removal of the pipe, as the water-heating engineer states that a flash occurred as the pipe was unscrewed preparatory to removing it, he having undertaken the work without opening the electric switch.

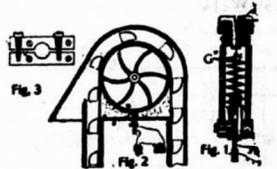
The lesson which the incident teaches is, first, the value of adequate lightning arresters; and second, the importance of keeping all electric wiring away from water and gas pipes. The electric wires were properly insulated, and carried by porcelain sleeves through the wooden joists of the building, but the lightning's voltage was heavy enough and the ground connection so good as to make the jump possible. If the pipe had been a gas instead of a water pipe, needless to say a fire would have occurred, which would have been difficult to control in daytime, and disastrous at night.

## WARNS OF FIRE.

Ingenious Fire Alarm Device for Grain Elevators.

A choke in the elevator head which stops the belt while the head pulley keeps revolving is frequently the cause of fires in grain elevators, says the Grain Dealers' Journal. The pulley rubbing against the belt soon generates sufficient heat to start a blaze.

An alarm to warn the operator when the elevator head is becoming overheated has been devised. A round hole is bored in the middle of the strut board for the insertion of the device, which consists of a metal plug, shown in Fig. 1. The upper stopper of the plug fits loosely and rests against the pulley. The lower electrode, H, is



Alarm for Grain Elevator Head.

firmly set while the upper electrode, G, is drawn up by a cord, J, held in place by wax. Overheating of the alarm melts the wax, releases the cord, permitting the coil spring to draw the upper electrode down into contact with the electrode, H. The closing of the circuit rings a bell placed in any convenient location. Fig. 2 shows the head with alarm in place, and Fig. 3 a clamp for holding the device in position.

## Chicken Gold Mine.

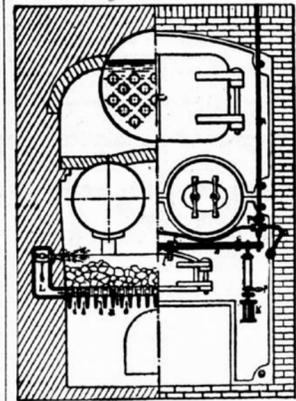
Mrs. Spencer Morris, of Atlantic Highlands, N. J., was dressing a chicken one day last week, when she discovered that it had been of a miserly disposition and had been hoarding up gold in its crop. There were three small pieces of gold there, the largest resembling a tooth. Mrs. Morris, in buying the chicken, did not pay for it by troy weight.

## AN ELECTRIC BLEACHER.

Apparatus by Which Flour is Whiten as it Passes Through Chamber.

A form of apparatus for whitening flour by means of products of the electric discharge is described in Electrochemical and Metallurgical Industry. Says the writer:

"A current of air is passed through a chamber containing a long, high-voltage continuous current arc, and this air is then used for treating flour in an agitator. The result of this treatment is that the flour emerges



Apparatus for Passing Discharges Through Air for Bleaching Flour.

"As to the rationale of this process from the agitator with a considerably whiter color."

With the largest size, about 30 sacks of flour can be treated per hour. In the type of machine shown in the illustration a double-acting pump draws air through a chamber in which there is an electric arc. As the air flows through, the upper electrode rises, gradually lengthening the arc until it goes out, when the operation is repeated. The bleaching action is thus explained:

It is to be remarked that in this case arc discharges are employed so that probably compounds of nitrogen and oxygen are formed in the air and the bleaching effect is due to these compounds. Essentially different from this method are those processes (proposed by others) in which ozone is used as bleaching agent and is produced by the silent electric discharge through air. S. Latham claims that the best results are obtained by treating the air successively first by the silent electric discharge and then by an arc discharge. Methods of this kind for whitening flour are reported to be in commercial use to some extent in the middle west and south, but no exact information is available."

## ELECTRIC ELEVATORS.

Design by Which All Driving Mechanism is Bolted to Under Side of Car.

A new and extremely simple design of electric elevator has been recently called to the attention of the public, and the new system is said to combine absolute safety, economy of power, and economy of space, says the Scientific American. In the latter particular at least it represents a great advance over the present types. All the driving mechanism in this case is bolted to the underside of the car platform, and consists entirely of a horizontal drum revolved by an electric motor. On the periphery of the drum is fitted a spiral track, which engages and travels in two series of rollers set in the guide posts supporting the car. The motor being started, the drum revolves, and the car ascends or descends as desired. As to its economy, this system has the advantage enjoyed by all electrically-driven machinery, in that it consumes power only when in actual use, and another recommendation is that all the machinery being contained in the elevator shaft, much valuable floor space is saved. It is claimed to be absolutely safe, and requires no safety devices of any character. The electric elevator of this design is particularly valuable where there is an intermittent demand for its use and where great speed is not required.

## Larceny of Lingerie.

Breaking and entering finely furnished residences of Toledo, O., with diamonds and jewels of great value easily accessible, Emil Tauchard disdained to touch the valuable, but instead stole all the lingerie in sight. Chemises, corset covers with fine laces, muslins and hosiery of every kind and class fell prey to his mania, while gold and sparkling gems were unmolested. This has been going on for months, and detectives finally traced part of the stolen stuff to Tauchard, who has confessed. He says he is the victim of a man with a spiked beard who has hypnotized him.

Pennsylvania's Educational Novelty. State Zoologist Surface is preparing to send to each county in the state a collection of snakes found in Pennsylvania, with a chart showing the food of the various serpents, the ramifications of the snake family and the geographical situation of the various species.

The snakes will be used for educational purposes, so that the teachers and pupils may be able to recognize the varieties from their appearance and know whether they are poisonous or not.—Philadelphia Record.

Electrical Domestic Appliances. With the object of popularizing electrical appliances intended for domestic use, an exhibition is taking place at Lyons under the auspices of the local Agricultural and Scientific association.

## FADED TO A SHADOW.

Worn Down by Five Years of Suffering from Kidney Complaint.

Mrs. Remeth Myers, of 180 South Tenth St., Ironton, O., says: "I have worked hard in my time and have been exposed again and again to changes of weather. It is no wonder my kidneys gave out and I went all to pieces at last. For five years I was fading away and finally so weak that for six months I could not get out of the house. I was nervous, restless and sleepless at night, and lame and sore in the morning. Sometimes everything would whirl and blur before me. I bloated so badly I could not wear tight clothing, and had to put on shoes two sizes larger than usual. The urine was disordered and passages were dreadfully frequent. I got help from the first box of Doan's Kidney Pills, however, and by the time I had taken four boxes the pain and bloating was gone. I have been in good health ever since."

Sold by all dealers. 50 cents a box. Foster-Milburn Co., Buffalo, N. Y.

Bismarck Hated Monuments. Reinhold Begas, probably the greatest German sculptor, has passed his seventy-fifth birthday. Ten weeks before Bismarck's death Begas appeared at Friedrichruh to get a final impression of Germany's most striking figure before beginning work on the great Bismarck monument voted by the reichstag. When Begas stated his mission Bismarck replied: "Gott, why do you wish to set me a great monument? Represent me as being on crutches!"

## AWFUL PSORIASIS 35 YEARS.

Terrible Scaly Humor in Patches All Over the Body—Skin Cracked and Bleeding—Cured by Cuticura.

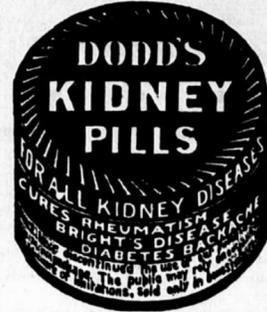
"I was afflicted with psoriasis for thirty-five years. It was in patches all over my body. I used three cakes of Cuticura Soap, six boxes of Ointment and two bottles of Resolvent. In thirty days I was completely cured, and I think permanently, as it was about five years ago. The psoriasis first made its appearance in red spots, generally forming a circle, leaving in the center a spot about the size of a silver dollar of sound flesh. In a short time the affected circle would form a heavy dry scale of a white silvery appearance and would gradually drop off. To remove the entire scales by bathing or using oil to soften them the flesh would be perfectly raw, and a light discharge of bloody substance would ooze out. That scaly crust would form again in twenty-four hours. It was worse on my arms and limbs, although it was in spots all over my body, also on my scalp. If I let the scales remain too long without removing by bath or otherwise, the skin would crack and bleed. I suffered intense itching, worse at nights after getting warm in bed, or blood warm by exercise, when it would be almost unbearable. W. M. Chidester, Hutchinson, Kan., April 20, 1905."

Sublime Faith. Nothing short of true faith will separate a bald-headed man from the hard-earned price of a bottle of hair restorer.

How Rhodes and Belt Met. Mr. Rhodes once told a circle of friends after dinner the story of his first meeting with Belt. "I called at Forges' late one evening," he said, "and there was Belt working away as usual. 'Do you never take a rest?' I asked. 'Not often,' he replied. 'Well, what's your game?' said I. 'I am going to control the whole diamond output before I am much older,' he answered, as he got off his stool. 'That's funny,' I said. 'I have made up my mind to do the same; we had better join hands.' Join hands they did. Unlike Alfred Beit, Cecil Rhodes had small patience with arithmetical details. Once this characteristic involved him in a difficulty. Pitching a balance sheet into the pile of papers before Belt, he exclaimed desperately, 'Here, you understand things; for heaven's sake tell me how I stand.'

Laundry work at home would be much more satisfactory if the right Starch were used. In order to get the desired stiffness, it is usually necessary to use so much starch that the beauty and fineness of the fabric is hidden behind a paste of varying thickness, which not only destroys the appearance, but also affects the wearing quality of the goods. This trouble can be entirely overcome by using De-fiance Starch, as it can be applied much more thinly because of its greater strength than other makes.

Neckties Women Buy. Customer—Those are the finest looking neckties I ever saw. Why do you keep 'em? Haberdasher—To sell. Customer—Who on earth buys 'em? Haberdasher—Women, to give to their husbands.



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# WHAT JOY THEY BRING TO EVERY HOME

as with joyous hearts and smiling faces they romp and play—when in health—and how conducive to health the games in which they indulge, the outdoor life they enjoy, the cleanly, regular habits they should be taught to form and the wholesome diet of which they should partake. How tenderly their health should be preserved, not by constant medication, but by careful avoidance of every medicine of an injurious or objectionable nature, and if at any time a remedial agent is required, to assist nature, only those of known excellence should be used; remedies which are pure and wholesome and truly beneficial in effect, like the pleasant laxative remedy, Syrup of Figs, manufactured by the California Fig Syrup Co. Syrup of Figs has come into general favor in many millions of well informed families, whose estimate of its quality and excellence is based upon personal knowledge and use.

Syrup of Figs has also met with the approval of physicians generally, because they know it is wholesome, simple and gentle in its action. We inform all reputable physicians as to the medicinal principles of Syrup of Figs, obtained, by an original method, from certain plants known to them to act most beneficially and presented in an agreeable syrup in which the wholesome Californian blue figs are used to promote the pleasant taste; therefore it is not a secret remedy and hence we are free to refer to all well informed physicians, who do not approve of patent medicines and never favor indiscriminate self-medication.

Please to remember and teach your children also that the genuine Syrup of Figs always has the full name of the Company—California Fig Syrup Co.—plainly printed on the front of every package and that it is for sale in bottles of one size only. If any dealer offers any other than the regular Fifty cent size, or having printed thereon the name of any other company, do not accept it. If you fail to get the genuine you will not get its beneficial effects. Every family should always have a bottle on hand, as it is equally beneficial for the parents and the children, whenever a laxative remedy is required.

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