

THE TELEPHONE IDEA.

First Suggested in This Country by the Croaking of Frogs.

Something About Dr. Cushman, the Constructor of the First Transmitter, and the Manner of His Discovery.

It is not common knowledge, except to those familiar with electrical and telephone history, that the first telephone was constructed in Racine, Wis., and that the inventor, Dr. E. D. Cushman, is now a resident of Chicago, says the News, of that city.

His litigation with the Bell Telephone company, extending over a period of ten years and costing one hundred thousand dollars, has been reported from a legal standpoint, but as it is one of Mr. Cushman's principles that personal reminiscences are in bad taste, he has seldom given a formal interview. The venerable inventor, seventy-seven years of age, who built the first telephone lines in this part of the "far west," pursues his business with more alertness to affairs than the average young man.

In a corner of the room is a large, worn piece of muslin on which is painted in thin colors a representation of a telegraph line stretching away in the distance, connected with a crude instrument, set on two logs, near which is a frog sitting by a stream. This old relic represents the telegraph line of "good cedar posts," which Dr. Cushman constructed west from Racine for the Erie & Michigan Telegraph company in 1861, and the experimental lightning arrester which led to his discovery.

It is a reminder of the days when Dr. Cushman was associated with Prof. Morse in the pioneer days of telegraphy. On his desk is the first telephone transmitter, constructed in 1861, twenty-five years before the Bell patents were taken out. It is a small, square box, with a speaking orifice and containing mechanism on the same principle as that of the modern transmitter.

In 1861 Dr. Cushman undertook the construction of a lightning arrester, his object being to take the lightning that struck the wire and run it into the ground, the instrument being so constructed that it would not interfere with the light current used in telegraphing. This instrument was placed out on the prairie on two logs and in order to know when it had operated a triple magnet with a sheet of thin iron at the poles, similar in construction to a modern "receiver," was placed in the corner of the box. In case the lightning passed through the instrument the electro-magnet would pull this strip of iron down into the range of a permanent magnet, which would retain it until the instrument was inspected.

A similar device was placed in the basement of the building at Racine and connected with the other end of the line. One day while a thunderstorm was coming up, and Dr. Cushman was watching the instrument, the croaking of frogs was heard, thirteen miles away. This is the explanation of how the old painting with the crude instrument and the croaking frog is identified with the discovery of the telephone.

Dr. Cushman is the inventor of the fire-alarm system in use in Chicago. His patent-office reports, he says, "would weigh a ton," and contain a great number of his electrical patents. To the priority of Dr. Cushman there is said to be no doubt, and the contest of the validity of the Bell patents begun in 1856 was at last taken to the United States district court of Boston in 1893, where it is now pending.

Dr. Cushman is a descendant of the historical Cushmans who came to Virginia in 1640. He was a friend of Horace Greeley and most of his prominent contemporaries in what might be called the era of rapid mechanical development. In early life he was a newspaper reporter. Some twenty years of his life...

RETARDING PHYSICAL DECAY

How Life Could Be Prolonged to Nearly Twice Its Usual Length.

Without eating and drinking there is no life; but we may select certain kinds of food containing a minimum amount of the elements which cause the ossification in the system. An English physician, Dr. C. F. De Lacy Evans, who made many researches in regard to our food, comes to the conclusion that more fruit should be eaten, especially apples, grapes and bananas, they being rich in nutritious elements. Being deficient in nitrogen, they are best for elderly people, as they keep the blood in a better condition than flesh.

Flourens, in his well-known work on "Human Longevity," cites the case of the Italian centenarian Cornaro, whose recipe for health and long life was extreme moderation in all things. Flourens himself insists that a century is the normal life, but the fifty years beyond, and even two hundred years, are human possibilities under advantageous conditions. Hufeland also believed in two hundred years as an extreme limit. Sir James Croston Brown, M. D., concludes, in a late address, that Flourens was right. Duration of growth gives the length of life. Hufeland held that the human body grows till the age of twenty-five, and that eight times the growth period was the utmost limit of man. But if twenty years be taken as the time of growth, even five times that will give us a century. According to Flourens and Cuvier, man is of the frugivorous or fruit and nut-eating class of animals, like the gorillas and other apes and monkeys. Man has not teeth like the lions and carnivorous beasts, neither has he teeth like the eels and herbivorous ones. Intestines in the man are seven or eight times the length of the body; the lion's are but three times the length of his body. Herbivorous animals, like the cow, have intestines forty-eight times the length of the body.

So, judging man by his teeth, his stomach and his intestines, he is naturally and primitively frugivorous, and was not intended to eat flesh. Fruit is aperient, and apples act on the liver, and are good brain food also, as they contain much phosphoric acid, as to the effect of certain climates, perhaps too much stress has been laid on that. We find that Thomas Parr, who lived in England, died in his one hundred and fifty-third year, and was blessed by the celebrated discoverer of the circulation of the blood, Dr. William Harvey (who expressed no doubt of his age), was never out of his native country. Accounts of men who have lived to extreme age in Ecuador and Mexico indicate possibilities. A climate that allows much outdoor living is the best for health. More depends on food than on any climate. Exercise, fresh air to live in and to sleep in, daily bathing and freedom from medicine are the important things. In July, 1883, the Courier-Journal, of Louisville, published a long account of James McMillin, who died in Carlisle county, Ky., at one hundred and seventeen years of age. When Buffon, Hufeland, Flourens, and men of that class, who had studied the subject, believed in the possibility of one hundred and fifty or two hundred years of life, the subject is not to be laughed at.

ITALIAN LEGAL FUNCTIONARIES

Minor Officials Who Are Poorly Paid for Their Services.

In Italy any unfortunate who owes 30 per cent. finds his little debt run up by sheriffs' officers, tribunal expenses and all the manifold charges of notaries, attorneys and advocates to 900 per cent. before he has time to breathe or realize the situation, and the forced sales are so conducted that the property sold produces nothing for anyone except the state and the auctioneer. The state takes its percentage first, says the Fortnightly Review, before even the creditors, and thus is caused the avidity by which all state officials and myriads drag to ruin, by intrigue and extortion, a large majority of the Italian tax-paying public. Note the salaries paid to the officials of the tribunals in Italy and judge if such officials are not invited and forced to ruin the mass of the people.

Where a county court judge in England has £1,000 or £2,000 a year, he receives here the equivalent of £40, or perhaps £50, per annum. All the lesser functionaries are paid in proportion. The giudice conciliatore, who answers to the juge de la paix in France, and to the police magistrate in England, is paid sometimes at the rate of £20 per annum, sometimes not at all; the poete of the appellants at his court must maintain him. It can readily be understood that all these hungry functionaries of the law, big and little, live on the public purse, and that almost any iniquity or injustice may be obtained under their rule if money be largely enough and secretly enough expended. "Your splendor is my dishonor," said Bacon to his magnificent liveried serving man, who rose to meet him when he entered court to stand upon his trial.

The Italian functionaries may say to the Italian Thiemis: "That we have costs to our backs and rings on our fingers is your dishonor, for you do not pay us enough to enable us to get either honestly." Notwithstanding this miserable pay which they receive, Italy spends on the administration of law 135,000,000.—i. e., 7,000,000 more than France (in comparison to the population) and 12,000,000 more than England. The public who contribute all these millions get little or nothing for their money.

Chinese Mandarins.

Chinese mandarins of the second class wear a button of coral red, suggested by a cock's comb, since the cock is the bird that adorns their breast. The third class are gorgeously, with a robe on which a peacock is emblazoned, while from the center of the ruff fringe of silk upon the hat rises a sapphire button. The button of the fourth class is an opaque dark purple stone, and the bird depicted on the robe is the pelican. A silver pheasant on the robe and a clear crystal button on the hat are the rank of the fifth class. The sixth class are entitled to wear an embroidered stork and a jade-stone button; the seventh a partridge and an embossed gold button. In the eighth the partridge is reduced to a quail, and the gold button becomes plain, while the ninth-class mandarin has to be content with a sparrow for his emblem, and with silver for his button.

BIG PRICES FOR FURNITURE.

Auctioneers Talk of the Private Sale of Rich Men's Effects.

A party of auctioneers en route from Chicago to Buffalo were in the smoking-room of a Lake Shore sleeper the other night telling stories. "Selling horses and farm stuff by auction is all right," said one, "but for genuine fun give me the private sale of a rich man's furniture. When Anthony Drexel died there were a lot of things which had personal reminiscences connected with them which everyone wanted. It was finally decided to hold a family auction and sell them to the highest bidder. The first thing I put up was a small clock, worth, I suppose, about twenty dollars. "I'll give five hundred dollars," was the first bid. It came from a nephew. "Make it one thousand dollars," interjected a younger son. "Fifteen hundred dollars," replied the nephew.

"The nephew won and got the twenty-dollar clock for money with which he could have bought the finest clock in Philadelphia. I never knew what the history of the clock was, but it must have had a peculiar one. Then I put up a big arm-chair. It was the chair Drexel had sat in for over twenty years and it had a valuable association for each one of the family. A married daughter and young Anthony Drexel were the ones who wanted it the most, and the bidding, which opened at one thousand dollars, was spirited and lively. I finally sold the chair to Anthony for six thousand five hundred dollars. The day's sales brought in over twenty-five thousand dollars. "I never had anything as good as that," said another auctioneer, "but I sold the Childs effects in the same way. The chief contest was over one of those old-fashioned tall clocks. Childs' eldest son finally bought it for eighteen hundred and fifty dollars, and it is now in the Ledger office in Philadelphia."

The government of Japan owns and operates all the railways in that country, and from this source derives a large proportion of its revenues. In the hot regions of Africa more than two thousand laborers are engaged in building the Congo railroad, and in the cold regions of Siberia many thousands of Russians are employed in the construction of the trans-Siberian railroad.

Telephones in Clairvoyance. M. Trouve, the well-known electrician of Paris, has brought out a tiny telephone no larger than a franc piece, and, in conjunction with Kostoff, the "wizard," has applied it to clairvoyance. The telephones attached to the ears of the blindfolded performer are hidden by a wig and connected by fine wires, also invisible, to a transmitter behind the screen. A confederate behind the screen, who can see and hear all that passes, prompts him by means of the telephone.

THE SWARMING OF THE BEES.

Napoleon Regained His Empire Twenty Days After Leaving Elba.

At nine o'clock a mighty shout is heard without. "The emperor! The emperor!" The palace echoes the cry, as across the bridge of the palace and along the main embankment in through the Tuilleries gate, thronged about by a clamorous crowd, and surrounded by his soldiers and his generals, Napoleon enters the courtyard.

Paris is wild with joy. The retarung fling themselves upon the emperor's carriage. They seize him in their arms. They drag him out and bear him on their shoulders, they rush with him through the doorway, even to the foot of the great staircase.

The palace roils with shouts of welcome. The crowd beats the emperor, and the tiring party follow the staircase to greet him, with the cry. Progress is impossible. People are everywhere, and Philip, standing at the top of the noble staircase of honor, laughs as he observes the vast throng of soldiers sitting outside the great silver statue of power, his champagne on the end of his cane, surrounded with shouting and wet with tears of joy.

At last a passageway is broken through the crowd. Philip and M. de Lavalette back their way back to the passage open, and as up the rambling stairway, along the gallery of Deans, through the blue room and into the emperor's study, amid tears and cheers and shouts, and tossing of hats and waving of handkerchiefs, the emperor comes to his own again. In twenty days after leaving Elba Napoleon has regained his empire. With but a thousand grenadiers he has conquered thirty millions of people. The swarming of the bees ends in a carnival of joy.—Elbridge S. Brooks

He Found It Out. The Wife—John, didn't you feel like a fool when you proposed to me? The Husband—No; but I was one.—Life.

—It is easy to learn something about everything, but difficult to learn everything about anything.—Emmons

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