

IN THE FIELD OF ELECTRICITY

Expert Opinion on the Efficiency of the Edison Storage Battery.

PICTURES SENT BY WIRELESS TELEGRAPH

Demands for Water Power Hauling the Seaside Charns of Waterfalls—Protecting Trolley Cars from Lightning.

Doubts as to the efficiency of Mr. Edison's new storage battery expressed in some quarters are not shared by the Electrical Review, a leading authority on electrical matters among American publications. The Edison battery—iron and nickel-oxide plates in a solution of potash—increases, says the Review, the weight-efficiency of the accumulator two and a half times. "To put it in plain English," says the Review, "for the same weight the new storage battery will do two and a half times as much work as at the present time." Not only will it do more work for a given deadweight, but its first cost is low, it is permanently efficient and will stand rough usage. This means a wider sphere of usefulness for electricity.

Lightning and the Trolley.

During a thunderstorm at any time of day the lights in the trolley cars of the Kansas City Metropolitan system go out. There are two reasons for it. One is for the protection of the car and the other for the protection of the passenger. When the lightning strikes the trolley pole at a standstill the trolley pole becomes a lightning-rod. When a car is in motion the electric current, which leaves the power house and is carried along on the trolley wire passes down through the trolley pole into the wheels into the rails, by which the current returns to the power house. Thus the trolley pole, the car and the rails form a complete circuit. When a car is at a standstill the connection between the trolley pole and the motor is cut off, breaking the circuit. However, turning on the lights has the same effect as putting the car in motion. That is, it completes the circuit. That is the exact reason why the lights are on during a thunderstorm.

Should lightning strike a trolley wire the flood of current would be carried with a rush to the nearest car. If this car should be in motion the lights are turned on so the circuit with the rails is complete. There would be a chance that the extra current of the lightning's stroke would pass down the trolley pole and through the car into the rails, doing no harm. The principle is the same, that of the lightning-rod, which carries the electricity of a bolt of lightning into the ground. But when there is no connection the current of a bolt of lightning would burn out the motors of the car, and if strong enough would shatter the car and injure the people who might be riding in it.

The Metropolitan company has had the rule for turning on the lights in trolley cars during a storm. It is a simple matter and it is believed that by this simple fact many serious accidents have been prevented.

Type Printing Telegraph. According to the Cologne Gazette, the Baudot multiplex type-printing telegraph, a French invention, operates so excellently that the results in Berlin and Paris have surpassed all expectations. The telegraph line has been in operation since the main office has educated a sufficient number of operators for the Baudot apparatus the system is now regularly in use during the greater part of the day on that line.

It has been demonstrated that the whole telegraph business between Berlin and Paris, which heretofore required five telegraph lines, can now be easily done over one by means of the Baudot system.

The operation is perfect and uninterfered by minor interruptions of the conduit. The work of the operators is not more arduous than with the Hughes apparatus.

It is to be regretted, says the article, that the new system is not suitable for long cables, otherwise the German-English cable would profit at once.

The new successes in quick and multiplex telegraphy will create a peculiar situation for the advertising agencies. The telegraphic service, if the Baudot system be introduced all over Germany, and, in addition, if the quick telegraph of Pollak and Virag be utilized for newspaper telegrams, and if Prof. Salvi succeeds in applying his precocious code to the telegraph system, telegraphy to ordinary wires, then it will be only a question of a short time when the existing telegraph business will hardly keep all the lines busy.

Wireless Telegraphy and Pictures. Some successful experiments were recently made in transmitting pictures by wireless telegraph to the Department of the Interior. The apparatus, consisting of a metal plate the picture to be reproduced. The lines thus obtained are then brought out prominently by means of some non-conducting solution, as, for instance, shellac. This prepared picture is then wrapped around a cylinder, against which lightly rests a platinum point connected in circuit. The receiver differs little from the transmitter, except that in place of the picture the cylinder contains without of carbon paper between two sheets of blank paper.

and beacons in the coast lighthouse service. By enabling an operator to light or extinguish at will from a point on the mainland lamps fed either by gas, oil or storage battery at points offshore the expense might be saved either of maintaining an attendant constantly on duty at the lighthouse, or of constructing and operating a connecting cable. In the operating of what is known as a flashlight the rotating mechanism, Mr. Clarke contends, can be started and stopped, as well as wound up, from a remote point on the mainland.

Farewell to Waterfalls.

Electrical experts and some common people are already reconciling themselves to the prospect of the total loss of Niagara falls as a scenic spectacle, says the Philadelphia Post. Each power tunnel bored and returning opulent dividends to its projectors is an irresistible argument in favor of the construction of another. The cataract is like a gold mine with 2,000,000 tons of ore in sight. Is it reasonable to suppose that the miners will stop when 10,000 tons have been taken out of 50,000, or 100,000, or any amount short of the entire contents of the lode? As reasonable as it is to suppose that the exploiters of Niagara will stop with 10,000-horse power, or 50,000, or 100,000, or any other amount short of the entire capacity of the falls. But while the probability that Niagara Falls may soon give place to a bare wall of rock is forcing itself upon thoughtful minds, the full implications of this tremendous fact do not seem as yet to have attracted attention. The inevitable corollary of the loss of Niagara is nothing less than the total disappearance of all waterfalls as an element of natural scenery. Niagara represents the extreme limit of the resistance of nature to science in that direction. Long before the last drop of its mighty flood is tamely made to flow through a turbine by way of a tunnel or a canal every minor cataract and cascade will be at work turning dynamos.

In most cases the problem is elementary compared with that of harnessing Niagara. A little dam across Yosemite creek before it takes its half-mile plunge over the cliff will transform one of the world's wonders into an industrial substitute for a steam engine. It will be easy to persuade the Merced river not to take the dazzling leap of 600 feet that we call the Nevada fall. The Shoshone falls, Minnehaha, the Genesee, the Passaic are either gone or rapidly going.

Sources of Wealth.

Every little cascade in a woodland glen is a potential source of wealth. Every one may be expected to disappear, unless it be preserved in a public or private park, like the surviving specimens of the buffalo. We do not yet fully realize what this means—how much the loss of the laughter of falling brooks and the surge of falling rivers will subtract from the enjoyment of life. Perhaps sentiment may be sufficiently powerful to gain for us at rare intervals a taste of the old pleasures. On a centennial anniversary or the visit of a president the masters of the dynamo may shut down most of their plants and turn on Niagara for a day. It will be a spectacle that will draw excursionists from the whole continent.

A stream that starts in the Sierras 10,000 feet above the sea may run through 100 power plants before it meets the tide. In time all its possibilities will be utilized. Every mile of water travel in its bed will be a waste of energy and ultimately we may expect to find it running the entire distance through pipes. Hydraulic engineers will explore the remotest recesses of the Andes, the Himalayas and sources of power and waterfall will be too inaccessible to be caught and tamed. What will the poets do then? Perhaps they may find poetry in a turbine, but if they do its quality can hardly match that inspired by a waterfall. And even if the poet manages to adapt himself to the new conditions what will become of the artist? How are they going to idealize the inside of an iron pipe? Yet that is where all the flowing water will be unless science discovers some still cheaper source of power.

Current Notes.

The New York telephone system is now the largest in the world. The growth in recent years has been astounding. The number of stations in the system now is more than 62,000.

The contract for constructing a line of street cars for the classic city of Athens has already been let. Cars are being built in New York and will soon be shipped to the city. The signs "Demosthenes Avenue," "North Hadrian Street" and the Parthenon.

Walter Budd, 9 years old, of Hartford, Conn., had a current from an electric cable through his body recently. That he was not killed is considered a miracle. The physician at the hospital where the boy is now suffering from the effects of the shock says that he will recover.

TWO PAYMASTERS ARE COMING

Practice in Vogue Before War to Be Resumed—Major Stanton Well Known in Omaha.

The orders assigning Major Stanton and Captain Graham to the Department of the Interior as paymasters of the United States army have not been received at headquarters, but the newspaper reports are taken as conclusive by the officers of the department.

This will be the second time that Captain Graham has been stationed at Omaha. He was here during the Spanish war and left this city for the Philippines, where he is now stationed. The captain was then major of volunteers, to which position he was appointed after the civil war in Iowa.

Major Stanton was appointed to the volunteer post at Illinois, being major in that branch of the service. In the report it is stated that he is to succeed Captain Brad Slaughter, who is ordered to the Philippines. The transfer cannot be made until Major Stanton reaches Omaha, which will require two months at least.

AFFAIRS AT SOUTH OMAHA

Meeting of the Council In Keeping With the Weather.

WRANGLE OVER SPECIAL POLICEMEN

To Pay or Not to Pay is the Much Mooted Question—Action of the School Board is Anxiously Awaited.

A special meeting of the city council was called yesterday afternoon for the purpose of determining the liability of the city in the payment of salaries of twenty-four special policemen who acted during the street fair.

While the council meeting commenced in the best of spirits, before it had finished it looked very much as though the preliminary question would be decided in a survival of the fittest mode of procedure. Twice at the afternoon session were the corridors of the clerk's office, in which the meeting was held, ordered cleared, and while the crowd would temporarily disperse, it would immediately again congregate.

The onlookers were made up mostly of the men who had been special policemen, and the manner in which they emphasized their views on the subject made things very exciting for awhile.

After the meeting had been called to order Johnston moved that the clerk be instructed to draw warrants for the payment of the police and Adkins promptly seconded it. Then came the fight. Martin claimed that it was the street fair's debt and that they should be the one to settle it. Van Sant was the only councilman absent, and when they did finally get to a vote it was found that the motion was lost.

When the clerk announced the decision the lukewarm atmosphere became decided. The more quiet the talking, all talking at one time, said that they would have their money and have it at once, while the councilmen who were in favor of paying them looked at each other in a helpless sort of way. Finally Martin said that a committee should be appointed to see the street fair board of control, and if they would repudiate the claim, Miller, Martin and Dvorak, the councilmen opposing the paying of the bills, were appointed by the mayor as the committee and they investigated. The board of control, which the board of control would hold a meeting in the evening and would then either refuse to pay or settle up the whole thing.

The evening session was very brief and the matter was quickly disposed of. A resolution was read, passed by the board of control of the city, which was to the effect that they said that since they had paid for all the special policemen that they had hired, being fourteen in number, they should not be called upon to pay for any more, and asked that the city pay for the men that were claiming before them for their "time."

Johnston again moved to pay them and Adkins again seconded the motion. Martin attempted to introduce, as a substitute to the motion, a resolution to the effect that the city should not be bound to pay for any more special policemen until the city attorney had authorized the city attorney to commence suit against the fair association for the \$600 thus paid out of the city funds. His resolution was declared out of order and the voting took place. Miller was the only man of the councilmen who had been in the afternoon opposed to the payment who stuck to his colors. He voted against the motion, but the rest swung into line and voted that the men should be paid.

The fight in the afternoon was precipitated by some men in the audience declaring that the taxpayers should not be burdened with the payment of police who had done but little and were not hired by the city, and each ex-police man took upon himself to consider it a personal insult.

It is rumored that an application will be made to the judge to issue a writ of injunction against the city paying the men, on the grounds that they were never legally appointed and the obligation is not one for which the city is liable.

Waiting on School Board.

The city is anxiously awaiting the action of the Board of Education on the proposed school which is to be built on the "Hector" site. Long time has been promised that at each succeeding meeting something would be done looking to the building of this school. It is indeed badly needed, as the city is renting vacant rooms over the city to accommodate the numbers of children who are applying to the board for admission to the schools of the city.

But outside of the delay in the building of the school comes certain discussion regarding the architectural plans of the building. The city has already expended \$2,000 for drawing the plans of the school. The plans were furnished and the architect stated that the price of the buildings, under the plans drawn, should not exceed \$100,000. However, the lowest bid which has been made for the building of the school is some \$120,000 more than this sum and it is generally conceded that, according to present arrangements, the school building will cost the district not less than \$200,000, exclusive of the land, which has already been paid for.

Leads to River Bank.

Street Commissioner Frank Clark and a corps of assistants are working on the opening of Missouri avenue to the Missouri river and expect to have the work completed within the next few days.

The work is to be done from Thirteenth and Missouri avenue and the city is pushing the work along with the object of shutting off an expenditure of \$25 a month, which they are now paying for leased ground. Heretofore no road has been open to the river and in order to reach the dumping grounds of the town they were compelled to pass over the private property of Herman Kountze, for which privilege the city has been paying the above amount each month.

Besides the grading which is being done the city has had erected about 2,000 feet of fence along the side of the new road. The work is being done on a level with the established grade of Missouri avenue and it is thought that it will make a beautiful driveway when the work is finished.

Newman Case Continued.

The case of H. E. Newman, charged with shooting at Chris Markson some days ago, was to come up for hearing in the police court yesterday afternoon. However, when the time arrived for the hearing Mr. Newman did not appear, which he said that on account of some business which he was desirous of having here for the trial being absent from the city that he could not proceed with the trial at this time. On this account the case was continued until August 13.

Magie City Gossip.

John Heyn of Hooper visited in the city yesterday.

Albert Downing of Palmyra is visiting with relatives and incidentally attending to some business matters.



The Beer with the flavor of Hops. The pure hop-flavor—the true taste of rich, fragrant hops—is a distinguishing feature in Saint Louis A.B.C. BOHEMIAN. "King of all Bottled Beers." It is the beer of absolute purity. See it sparkling in bottle or glass. Note its bright golden color and fine effervescence—matchless in flavor, color and tonic qualities. It is especially the family beer—a perfect article for table use. Accept no substitute for St. Louis A. B. C. Bohemian Beer. Order From C. R. MAY, - OMAHA. Our dainty book of menus—"Some German Suppers" free on request. The American Brewing Co., St. Louis, Mo.

UNCLE SAM AND IRELAND

John F. Finney of Chicago Addresses a Church Gathering.

HUNDREDS OF HEARERS ARE PRESENT

Orator Tells His Audience of Existing Conditions on the Emerald Isle and Suggests Remedies for Improvement.

One of the most successful church events of the year was the eighth annual festival of the Church of the Holy Family on the lawn of the pastor's residence Wednesday evening.

The principal feature of the occasion was an address by John F. Finney of Chicago, who spoke on the subject of "America and Ireland."

Mr. Finney's reputation as an orator is well known in Omaha and the fact that he was to speak brought out hundreds of people who would not otherwise have been present.

The lawn was filled with people, the seats provided being insufficient for the crowd. When Mr. Finney, accompanied by Mayor F. E. Moore, Sheriff John Power, J. A. Connor and J. F. Daily entered the speakers' stand the band played "America."

Mayor Moore introduced Mr. Finney as an old army comrade and one of the best correspondents with the union army during the civil war.

In opening Mr. Finney referred to the mayor in complimentary terms. He spoke in part as follows:

"In the days of the fathers the Irish, who are prominent in the population of the city, were looked upon as the setting sun for relief from English oppression. Today, on American soil, 20,000,000 Irishmen are now domiciled. Why is this emigration? The most bigoted Englishman will not say that the soil is not sufficient to maintain the population. It is said that Ireland is too small to govern itself, but Holland and Belgium, about one-third of the size of Ireland, give the lie to this claim."

"It is said that Ireland cannot govern herself because the population is mainly Catholic. Catholic Belgium, one of the most prosperous countries on earth, disproves this. Norway is smaller; so is Greece, and not one of the lands I have mentioned has better soil or more majestic country. English laws are responsible for the emigration of the Irish. It was English law which drove the farmer from the soil, the herdman from the plain and the artisan from the factory. Sixty years ago 3,000,000 people were housed in Ireland. Today but 4,000,000 people are on the island. From 1845 to the present time there starved to death, under Queen Victoria's reign, 1,500,000 people, driven to the grave by English laws and not by the edict of Almighty God."

"Do not be deceived by the stories in the press of English liberty. She is a hypocrite, worse than Russia. She preaches God and morality—she practices murder and robbery. She is the same England she always was, the one that is now fighting the Boers is the one who turned loose the red Indian on the inhabitants of the Valley of Wyoming in Pennsylvania. She is the one who impressed American seamen until she was driven from the sea. Packenham and Wellington were Irishmen by birth. Packenham was one of the six men in the Irish Parliament who sold that body to England for a commission in the English army. It is this same England that we are fighting morally, if not physically, today—England, the land of Wilberforce, who maintained slavery in the West Indies until the abolition of the slave trade in 1807. The present premier of England, the American abolitionist until the civil war was precipitated and then gave aid and support to the southern confederacy. When General Sherman reached Atlanta he found that most of the cannon which had been firing upon the union soldiers bore the crown mark of an English arsenal."

"England claims that she helped the United States in the war with Spain. This is a newspaper lie. There is no official record that she ever did anything for us. The present premier of England, when England hurried her forces to Canada after the war Russia sent a fleet to New York to let her know that if she interfered in American affairs the Russian bear would put its head into the English honey pots."

"The present premier of England, then Lord Robert Cecil, bought \$100,000 of Confederate bonds and other Englishmen bought these bonds, but the United States could find no Boers in England."

"The Boers are now teaching the English

BALDWIN STARTS CONFIDENT

Last Word at Tromsø is Promise to Reach North Pole.

EXPEDITION GETS FINAL HEARTY CHEER

Course of America Will Be First to Russian Town of Archangel, and Afterward to Vardoe.

TROMSØ, Norway, July 17.—Shortly before midnight last night the ships of the Baldwin-Zelig expedition weighed anchor and, with the stars and stripes and Norwegian flags at their masts, steamed off to the north. As they left the harbor the crews of the other vessels there gave the expedition a cheer.

Evelyn B. Baldwin, chief of the expedition, was in excellent spirits. His last words to a representative of the Associated Press were that he had little doubt of reaching the north pole.

The America will proceed first to Archangel, in Russia, and then reach the island of Vardoe off the coast of Norway, whence the final departure for Franz Joseph Land will be made. Touching Houningsvaar, the boats, America and Belgica, will pick up the Fritjhof, and all three will proceed northward together.

The committee in charge of the grocers' picnic to be held August 8 is meeting with gratifying success. At this time over 500 tickets have been sold to persons not members of the association and the demand for tickets will tax the ability of the society to provide accommodations for the party.

The managers of several of the dry goods stores of the city have indicated their intention of closing for the day, claiming that houses and the grocery stores will all be closed, it will not pay them to keep open.

MANY GUESTS OF GROCERS

Tradesmen in All Lines Prepare to Attend Picnic—Stores to Close for the Day.

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Drexel's \$3.50 Specials—

We want you to take a look at our line of men's \$3.50 shoes—it doesn't cost us anything to carry this special line, so we put the quality in the shoe—every style is represented—the high and low cut—patent leather—patent rick kid—box calf and Russia—wide extension soles—we have every size and every width in every style you will see in the window—ours is the largest line of \$3.50 shoes ever seen in Omaha—a regular Drexel value in every pair—we guarantee every shoe, and you get your money back if you want it.

Drexel Shoe Co.

Catalogue Sent Free on the Asking Omaha's Up-to-date Shoe House. 1418 FARNAM STREET.

Free Music—

One-half the charm of a musical composition is lost in the failure of the correct interpretation. With this in view we have arranged with Mr. E. Van Alstyne, the composer of Lucia, Patoka, Bola Bola, Hula Hula, etc., to give a concert at our sheet music department next Saturday, July 20th. The program will consist of many compositions just issued, as well as the old favorites.

A. HOSPE,

Music and Art. 1513-1515 Douglas.

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