

TELEGRAPH AGE.

A SEMI-MONTHLY JOURNAL DEVOTED TO TELEGRAPHY.

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NEW YORK, JULY 1, 1902.

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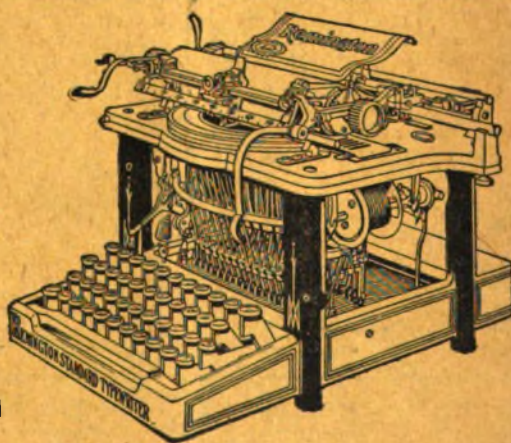
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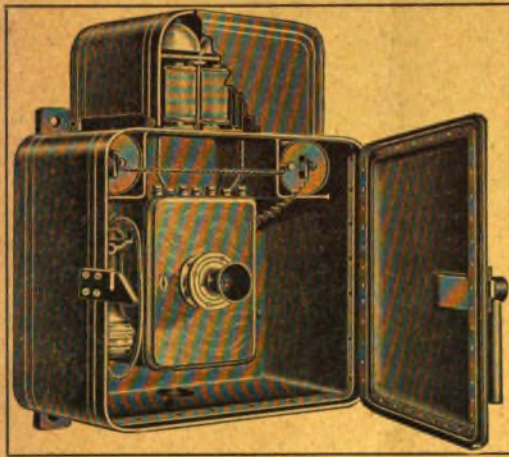
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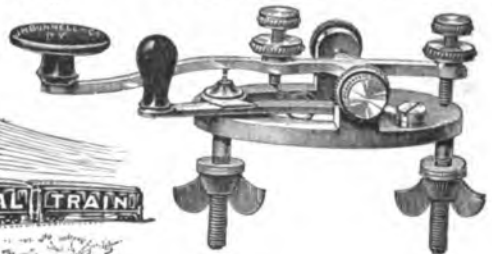
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THE TELEGRAPH AGE

No. 13.

NEW YORK, JULY 1, 1902.

VOL. XIX.

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furnish current with which to operate a motor-dynamo, while the latter generates a suitable current for the purpose of charging the storage cells.

The object attained in employing motor-dynamos is to transform the usually high pressure of the electric light circuit to a lower voltage and in other ways simplify the process of accumulating current.

In some localities the electric light companies employ an alternating current exclusively. Such currents are obviously useless for charging purposes. Where this condition obtains there is no alternative but to first transform the alternating current into a direct current by means of a motor-dynamo specially constructed for that purpose.

These machines suitable for the principal voltages used in electric light circuits may be obtained from any of the standard dynamo establishments. They come specially wound and classified for certain outputs. That is to say, with a 500-volt pressure, for example, driving the motor, the winding on the shaft of the latter may be so arranged that the dynamo half of the combination machine will deliver any desired value of electromotive force.

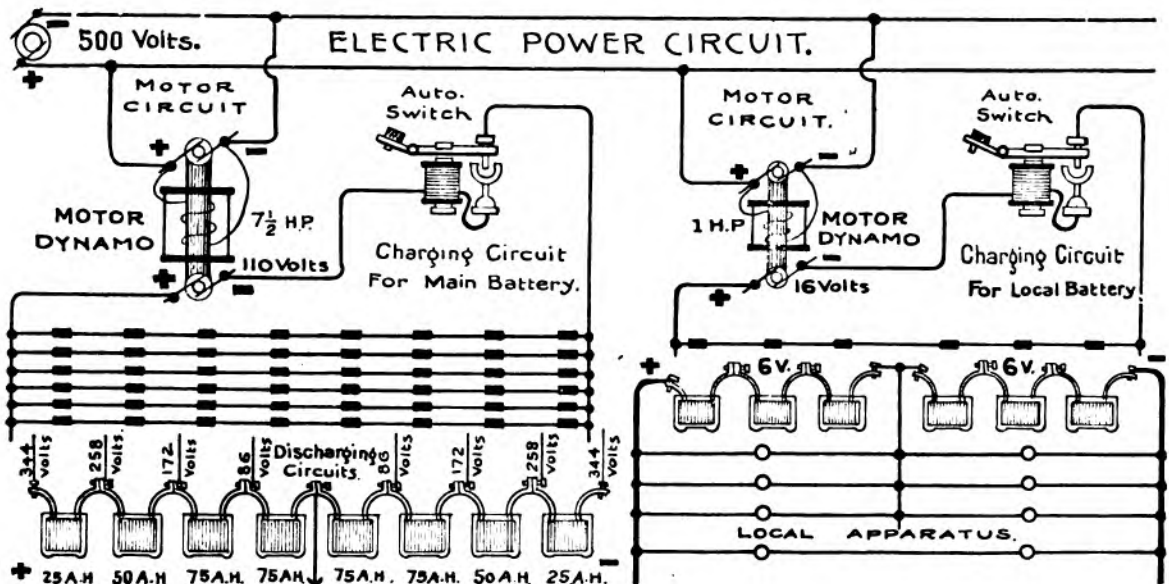
The diagram shows two dissimilarly wound motor-dynamos fed by the same 500-volt pressure, but delivering at their respective brushes widely different values of electromotive force.

Some Points on Electricity.

BY WILLIS H. JONES.

(Storage Battery Concluded.)

Another method of charging storage batteries



Charging Storage Batteries from a Power Circuit.

is shown in the accompanying diagram. The electric power company is simply called upon to

The 110-volt machine is shown charging a number of main line cells in parallel, while the 16-volt

dynamo is performing like duty for the local and loop batteries.

Where this system is employed a safety device, such as the one marked "automatic switch," must be inserted in the storage battery circuit in order to automatically open the latter in the event of the current in the electric light circuit being temporarily shut off. Should this happen the storage circuit would immediately become short-circuited through the armature and cause the machine to reverse its legitimate duties; that is to say, generate a current in the electric light circuit and call on the storage battery for current to run it. To prevent such a waste of current the retractile spring of the magnet of the automatic device having one end of its armature inserted under the arch of a metallic staple which dips into a cup of mercury is adjusted above the ordinary strength of current in the storage circuit, but should the latter become short-circuited as described, the abnormal increment of current resulting, will cause the magnet to attract the armature lever, which action lifts the staple out of the cup and opens the circuit.

In estimating the required charging rate for a row of equal capacity storage cells the principle followed is the same as if figuring on one cell, because the charging energy passing through the entire row, as it does, simultaneously delivers an equal amount of current to each jar. Sometimes the value of the charging electromotive force is too low to charge a large group in series. Where such a condition arises the number should be divided into shorter rows and then charged in parallel. In conclusion it may be helpful to the reader to summarize roughly the following points:

To find the current rate per hour for main wire plant, multiply the total number of wires fed by .050. For four-ohm sounders, multiply the number of circuits by .250. This will give in amperes a fair estimate of the total amount of current drawn per hour from the plant, and it also represents the rate at which the electric power company must supply the charging current.

The means of regulating the rate of the current in the charging circuit is very simple indeed. The strength of the current in any conductor is found by dividing the electromotive force in volts by the total resistance in circuit, hence the formula $E \div R = C$. C means the current in amperes. Now, if $E \div R = C$, then $E \div C$ must equal R .

For example, let us assume that the electromotive force of a charging source is 500 volts, and a constant flow of ten amperes of current required for the storage plant. How much resistance will it be necessary to insert between the cells and the positive lead of the charging pressure? Using the formula $E \div C = R$, we find that $500 E \div 10 C = 50 R$, or 50 ohms resistance.

Now, 50 ohms would be the proper figure were it not for the fact that each storage cell possesses an electromotive force of its own equal to at least two volts, and as this pressure is invariably set against the charging source, the actual effective electromotive force of the latter is obviously rep-

resented by the difference between the two values. Thus, if 100 cells in series were being charged the effective electromotive force of the charging source would be $500 E - 200 E = 300 E$. We will then have $300 E \div 10 C = 30 R$.

Thirty ohms, then, represents the correct value of resistance to be inserted for a constant charging current of ten amperes under an initial pressure of 500 volts.

In a charging circuit, however, it is customary to count the counter electromotive force of each cell 2.5 volts instead of 2 volts, as it reaches that value temporary when fully charged.

Recent Telegraph Patents.

John A. Toomey, of Goshen, Ind., has been granted a United States patent, No. 702,263, for a telegraph transmitter.

Sidney G. Brown, of Putney, Eng., has been granted a United States patent, No. 702,339, for improvements in the Wheatstone system.

Business Notice.

The Electric Storage Battery Company, of Philadelphia announces that Mr. G. F. Greenwood, 34 Empedrado street, Havana, Cuba, has been appointed agent for the sale of "The Chloride Accumulator" in Cuba. All inquiries and business for this section should be forwarded to Mr. Greenwood, and will receive from him prompt attention.

If you have read—most everybody has—"The Ghost of the Glacier" you will be interested in knowing that another good story by the same author has just been issued by the Passenger Department of the Lackawanna Railroad. It is called "The Experiences of Pa." It has the "story-telling" quality and possesses, beside real humor, the charm of one of the daintiest love stories that has been written in a long time. The stories are contained in a little book called "Lakes and Mountains," which will be mailed on request accompanied by five cents in postage stamps to T. W. Lee, General Passenger Agent Lackawanna Railroad, New York City.

The fact that shrewd observers consider the condition of the typewriter business a good index of the general commercial situation lends an added interest to the recent announcement of the Remington Typewriter Company that they propose to extend the capacity of their works at Ilion, N. Y., to nearly double their present production. New buildings are to be erected, and increased facilities of every description are to be put into service with all possible speed to provide for an increase in the company's business, which, although steady for a number of years in succession, has lately assumed proportions altogether unprecedented in their previous history. That this great concern with its highly organized system, touching the commercial world at all points of the country, should plan extensions on such a magnificent scale affords a most satisfactory indication of the sound condition of the nation's material interests.

We have received from the International Cable Directory Company, 17 State street, New York, a copy of the International Cable Directory of the World, issued in conjunction with the Western Union Telegraphic Code system. This book to users of the wires, both for domestic or cabling purposes, is to the business public exactly what the telephone book is to users of the telephone, as it furnishes the cable addresses of prominent corporations, firms and individuals in all parts of the globe, and is therefore invaluable for reference. The fact that the State Department has purchased copies to supply all the embassies, legations and consulates of the United States throughout the world must add materially to the value of the book to all users of the Code. The book was adopted by the State Department mainly for the promotion of commercial relations with the United States by the residents of other countries. The great success of the work has induced the publishers to print the business headings in German, French and Spanish, in addition to English. The Directory contains the only classified list of American manufacturers extant.

The Smith Premier Typewriter Company has just issued a new and attractive edition of its machine catalogue, artistically printed, exclusive of cover, in two colors. The illustrations of typewriters, typewriter parts, desks and cabinets are superb half-tones. The cover of this catalogue, which is of flexible board, is unique in design and handsomely lithographed in fourteen colors. It is divided into two panels, one of which represents a comely Indian maiden in fringed buckskins, beads and moccasins, leaning upon her bow beside a quiet pool in the heart of the forest. Her attitude is that of meditation. The opposite panel shows an office interior with all modern equipments, in the foreground appearing a young woman stenographer transcribing her notes upon a Smith Premier Typewriter. It would be difficult to present a more striking illustration of American progress than is here given. The whole design is illustrative of the motto of the Smith Premier Typewriter Company, "Improvement the Order of the Age." Copies of this catalogue can be obtained upon application.

The President of the Brooklyn Rapid Transit Company.

The Brooklyn Rapid Transit Company, which operates practically all of the railroads, elevated and surface, of the Borough of Brooklyn, New York, has been much in the public mind during the past few years, notably because of its relations to the difficult problem of Bridge transportation, with which it is and has been confronted. Naturally under the somewhat strenuous circumstances governing the railroad management during this period, the president of the company, Jacob L. Greatsinger, has been brought before the community with unusual prominence, and has become a figure of almost National reputation. In view of these facts it will especially interest our

readers, perhaps be a surprise to many, to learn that Mr. Greatsinger is an ex-telegrapher, in fact, that at one time in his life he was a train dispatcher. It is said of him that he was an excellent operator. Even now as occasion offers he takes his place at the key and much enjoys the recreation afforded of such a recall of his one-time occupation. Mr. Greatsinger was born in the country, the son of a farmer, but farming life held out no inducements for him. After a brief experience in the hardware and coal business at Elmira, N. Y., ventures successful from the beginning, he drifted into railroading, with which he has since been identified. He is a practical rail-



JACOB L. GREATSINGER,

The President of the Brooklyn Rapid Transit Company.

road man, not only as the manager of a great system, but even down to the minutiae of engine construction and driving, for when in the employ of the Utica, Ithaca and Elmira Railway, a little road then under construction, he passed through the various grades of fireman, engineer and machinist, and later, when he had learned telegraphy, became a train dispatcher. From that time his advancement has been rapid and he has successfully filled, both in the East and West, most of the working position incident to railway management, reaching that of president and acquiring large wealth. He is a man of engaging personality, a hard worker, is reputed to be a friend of the workingmen, and, as the saying is, "Knows his business."

TELEGRAPH AGE is the only telegraphic paper published in America. It is up to date, covering its field thoroughly, and no telegrapher, official or operator, can afford to be without it.

New Officials of the Western Union Pacific Division.

FRANK JAYNES,

Mr. Frank Jaynes, who on July 1 became the general superintendent of the new Pacific division, just created by the Western Union Telegraph Company, with headquarters at San Francisco, is promoted to this office from the position of superintendent, a place he has held since 1880. Mr. Jaynes is a native of Pittsburg, Pa., and learned telegraphy in 1858 at Oakland, Md., a station on the Baltimore and Ohio Railroad. Going to California he entered the telegraph service at Tehama, in 1861, afterwards finding employment as an operator at San Francisco and Sacramento for the California State Telegraph Company. In the early part of 1865, he was appointed secretary of the United States Telegraph Company at San Francisco, and later, upon its consolidation with the Western Union Telegraph



FRANK JAYNES,

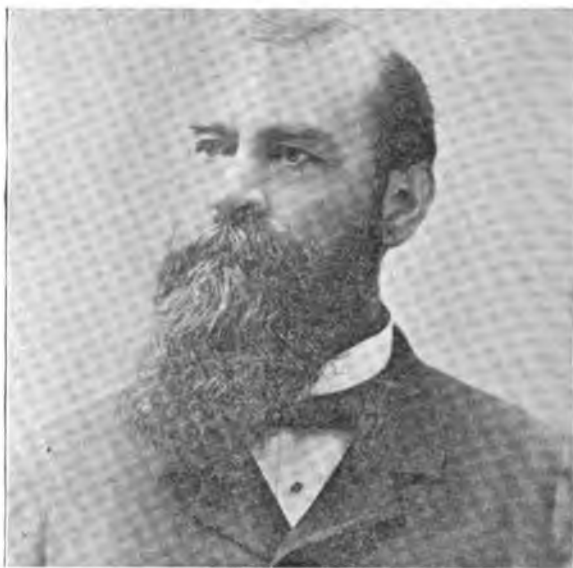
General Superintendent New Pacific Division,
San Francisco, Cal.

Company, he became cashier of the latter at San Francisco. In addition to his duties as cashier, he also superintended the supply department, and managed the tariff bureau of the Pacific division for several years. In these departments he showed so much capacity and efficiency that in 1872 he was appointed assistant superintendent of the Pacific division. In 1880 the Pacific division became the Fourth district of what subsequently became the Western division of the Western Union Telegraph Company, and Mr. Jaynes was appointed its superintendent, the position from which he has just been advanced. He is also president of the Gold and Stock Telegraph Company of California.

Mr. Jaynes' rise in the service has been due solely to his force of character and marked ability, and for thirty years he has been so closely identified with telegraph interests that a history of the telegraph upon the Pacific Coast would be largely a record of his life and services.

FRANK H. LAMB,

The creation of the new Pacific division of the Western Union Telegraph Company has been the means of advancing Frank H. Lamb from the position of assistant superintendent of the former fourth district of the Western division to that of superintendent of the first district of the Pacific division, which includes California, Arizona and Nevada, his headquarters remaining as heretofore at San Francisco. Mr. Lamb is of New England origin, being a native of Massachusetts. He commenced his tele-



FRANK H. LAMB,

Superintendent, San Francisco, Cal.

graphic career in 1859, when he became manager in the Eastern district of the Borough of Brooklyn, New York City. During the Civil War he became connected with the United States Military Telegraph, in which service he was twice captured, and experienced all the horrors of Libby Prison. In October, 1865, he was appointed chief operator at Cincinnati, Ohio, for the United States Telegraph Company, and later, upon its consolidation with the Western Union Telegraph Company, he was sent by the latter to the Pacific Coast as superintendent of its lines in British Columbia. He has since been continuously in the service of the Western Union Company.

Mr. Lamb was a member of the party engaged to survey the route from British Columbia to Russia, for an overland telegraph system to Europe, but which was abandoned on the successful completion of the Atlantic cable.

THOMAS W. GOULDING,

Mr. Thomas W. Goulding, who has recently been promoted from the position of manager of the joint interests of the Western Union Telegraph Company and Great North Western Telegraph Company at

Vancouver, B. C., to be superintendent of the second district of the Pacific division, lately created by the Western Union Telegraph Company, with headquarters at Seattle, Wash., was born in England, April 2, 1863. He entered the telegraph service as a messenger for the Great North Western Telegraph Company, at Winnipeg, Man., in 1877. Becoming an operator he went to St. Paul, Minn., in 1880, but later returned to Winnipeg, rejoining his old interests, where, in quick succession, he was promoted to the positions of chief operator, manager and acting superintendent. For a few years thereafter he was in the employ of the Canadian Pacific Telegraph Company, still at Winnipeg, when he was sent to Vancouver in 1895. In 1897 he was made manager for a few months of the office at Nelson, B. C., afterwards returning to Vancouver. On the advent of the Western Union Telegraph Company to British Columbia he was appointed manager, in 1898, of the joint interests of the two companies as stated above, a position he has held until his recent promotion.



THOMAS W. GOULDING,
Superintendent, Seattle, Wash.

Mr. Goulding is regarded as a particularly bright man in the telegraph service, and his rapid rise is a just recognition of his personal abilities.

Appointments and Resignations.

Mr. J. W. Tillinghast, manager of the Western Union Telegraph Company, Buffalo, N. Y., for the past thirty-five years, has resigned, taking effect on June 30.

Mr. George M. Eitemiller has been reappointed night chief operator of the Western Union Telegraph Company, at Pittsburg, Pa., vice L. N. Merrick, resigned.

Mr. C. H. Stancliff, chief operator of the Western Union Telegraph Company, Waterbury, Conn., has

been promoted to the managership of the office, vice W. A. Sawyer.

Mr. A. G. Saylor, manager of the Western Union Telegraph Company, Philadelphia, Pa., has been promoted to the chief clerkship in the general superintendents' office, New York.

Mr. W. A. Sawyer, manager of the Western Union Telegraph Company at Waterbury, Conn., has been promoted to the managership at Buffalo, N. Y., vice J. W. Tillinghast.

Mr. John A. Jenkins, assistant chief operator of the Western Union Telegraph Company, Denver, Colo., has been appointed to fill the vacancy of chief operator, vice T. A. McCamman.

Mr. J. W. Reed, manager of the Western Union Telegraph Company, Colorado Springs, Colo., has been appointed manager of the same interests at Philadelphia, Pa., vice A. G. Saylor, resigned.

Mr. T. A. McCamman, chief operator of the Western Union Telegraph Company, Denver, Colo., has been appointed chief operator of the same interests at Philadelphia, Pa., vice E. B. Saylor, resigned.

Mr. A. L. Lafferty, for fourteen years with the Postal on the Detroit (Mich.) Board of Trade, has been appointed manager of the Toledo, O., office of the Postal Telegraph-Cable Company, vice Mr. Henry Harriman, promoted.

Mr. George Crighton, formerly manager of the Western Union Telegraph Company's office, London, England, has been promoted to be superintendent of the London station vice D. LeRougetel, advanced to be general superintendent in Europe.

Mr. Charles H. Murphy, general inspector and superintendent of the clock service of the Western Union Telegraph Company, New York, has had his jurisdiction extended to include the Southern as well as the Eastern division of the company.

Mr. David Horan, well known in the West and Southwest as a construction man and for many years manager of the Postal Telegraph-Cable Co. at Gallup, N. M., has been appointed assistant foreman of construction of the Western Union Telegraph Company at Omaha, Neb.

Mr. Frank L. Titus has resigned his position as assistant wire chief of the American Telephone and Telegraph Company at Maumee, O., and has been appointed night chief of the Atchison, Topeka and Santa Fé Railroad, repeater office at Purcell, I. T. Mr. Titus will be relieved at Maumee by Mr. Thomas H. Harper, chief operator of the Western Union Telegraph Company at Toledo, O.

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Boston and Albany's New Superintendent.

In sequence with the resignation of W. R. Robeson, general superintendent of the Boston and Albany Railroad, comes the announcement that that office, as well as that of assistant superintendent, have been abolished, and that Joseph B. Stewart has been appointed superintendent, with office at South Station, Boston.

Mr. Stewart was born in Hunterdon County, N. J., in 1859. He entered railroad service as a messenger boy when eleven years of age on the old Morris and Essex Railroad, now a part of the Delaware, Lackawanna and Western. Within a few months he mastered the art of telegraphy, and at the age of twelve was employed as a night operator. At thirteen he was employed in the office of train dispatcher of the Morris and Essex Railroad, and was in charge of the night service.



JOSEPH B. STUART,

The new Superintendent of the Boston and Albany Railroad.

Later he was employed as operator on the Pennsylvania Railroad and Central Railroad of New Jersey. In 1881 he left railroad work to accept employment as operator in the main office of the Western Union Telegraph Company in New York city. Eighteen months later he was promoted to the position of chief operator in charge of all wires and operators in the western section of the office.

He resigned in 1883 to accept the position of electrician for the Baltimore and Ohio Telegraph Company, with headquarters at Baltimore. In 1884 he was appointed assistant superintendent of the central district, comprising all commercial business and offices on the Baltimore and Ohio Railroad, from Philadelphia to Chicago; also of lines to the principal cities in Pennsylvania, the District of Columbia and the Shenandoah Valley, Virginia. When the Baltimore and Ohio Tele-

graph Company was absorbed by the Western Union in 1887 he was retained in charge of the corporation in Pennsylvania, which could not be included in the sale. He resigned in 1889 to accept the position of superintendent of telegraph and signals on the West Shore Railroad between New York and Buffalo, and in 1896 was promoted to the office of division superintendent. In November, 1900, he was transferred to the Pennsylvania division of the New York Central and Hudson River Railroad, and shortly after the lease of the Boston and Albany came to Boston and assisted in establishing on that road a modern train dispatching system.

Telegraphic Experiments in Germany.

The Berlin correspondent of the London "Times" writes that experiments made last year at the general telegraph office, Berlin, with an octoplex system of typographic telegraphy have led to its being installed for communication between Hamburg and Frankfort. The apparatus is now being fitted up, and will shortly come into use. It is claimed that by this system twenty officials at the despatching and receiving stations can send 18,000 words per hour over a single wire. The despatcher resembles a Remington typewriter, and any letter can be despatched by the depression of a single key, and the receiving instrument, by printing the message direct, enables the official to forward the telegram as soon as it is completed.

[This is undoubtedly the Rowland telegraph system, the invention of the late Prof. Rowland of Johns Hopkins University of Baltimore, M. D.—Editor.]



W. M. FASHBAUGH,

Superintendent of the Leased Wire Service, a newly created office of the Western Union Telegraph Company, New York, a sketch of whom appeared in *Telegraph Age* of June 16.

The Cable.

Prof. Reginald A. Fessenden, of the United States Weather Bureau, the inventor of a system of wireless telegraphy is credited with the assertion that submarine cables are doomed, that wireless telegraphy will soon take their place. We are as sorry that the professor does not exercise better judgment, as he is that the cables will soon be put out of business. Of course, the loquacious professor's own system is the one that is destined to bring about these marvelous changes.

The Dutch Parliament has just ratified the telegraph convention between Germany and Holland which was concluded in July of last year. This convention is of considerable political importance, as the chief object sought by the contracting parties is to free both countries from dependence on the British cable companies, which at present have the practical monopoly of ocean telegraphy. It furnishes the two signatory Powers with the requisite authority to establish new telegraphic communication between Germany and Holland and their Eastern possessions by means of cables which shall be under the joint control of the two Governments. It is proposed to intrust the laying of the cables to a German-Dutch company which will have the exclusive concession for a line from Menado, the capital of the northern Celebes, to one of the Mariana islands belonging to Germany, and from there to Shanghai. At Guam the German-Dutch cable will connect with the American cable to be laid between San Francisco and the Philippines. The Dutch Government having undertaken to lay a cable between Menado and Balik Papan in Borneo, which has already telegraphic communication with Java, the result of the convention will be the establishment of an independent German-Dutch cable connection with their colonies in Asia and with China by way of San Francisco.

In addition to the convention there is a protocol, the terms of which are secret, which it was at one time thought might cause trouble in the Dutch Parliament. This seems, however, to have been overcome. It is believed it refers to the danger likely to arise in the event of war, against which the contracting parties desire to guard as far as possible. About this there may be some difficulty as, when the submarine cable conference met in Paris twenty years ago, the British Commissioners declared they would not sign the convention unless the Powers represented agreed to the principle that belligerents should be left free to act when war existed. This was agreed to and the treaty of 1884 contains a proviso to that effect. In the interest of international commerce the neutrality of ocean cables is no doubt desirable, but at present it does not appear possible to maintain their neutrality unless by an armed league of the non-belligerent Powers on the outbreak of a war.

The cutting of the French cable recently about three quarters of a mile off Coney Island, New York, was a most dastardly act.

The break in the cable was first discovered on June 6, about 7:30 P. M. The position of the

break was located by the usual tests, and the company's cable steamer, the Admiral Courbet, was summoned from Halifax, arriving on June 14. The experts aboard succeeded in picking up the ends of the cable, and reported that the cut was a clean one, and must have been done intentionally. The officers of the company are of the opinion that probably some fishing smack's anchor had become entangled in the cable, and the crew, taking the easiest way to extricate themselves, had cut the cable. The cable at that point is of the heavy shore section.

It is international law that, if a ship's anchor is caught in a cable, the crew shall cut their anchor chain and the company will compensate them for their loss.

The French Telegraph Cable Company has offered a reward of \$500 to any one who will supply information that will lead to the discovery of the persons guilty of cutting the cable.

The French cable steamer Pouyer Quertier, which was lying five miles off the lower crater of Mont Pelée a few days ago, when an explosion occurred. A dense black cloud rolled down the mountain to the sea. Its appearance indicated that its character was similar to the cloud that swept over St. Pierre on May 8, when that city was obliterated. The steamer put to sea and was followed by the cloud, which came within a mile of her. Her decks were covered deeply with ashes and stones. At the same time there was an enormous cloud over the top of the mountain, and the sea fell seven feet, remaining stationary for some time before the water flowed back to its normal level.

The annual report of the German Atlantic Cable Company, which has just been made public and which covers the first full year of the company's operations, shows that the number of words transmitted by the company between the United States and Germany and vice versa in 1901 was greater than the number of messages it was estimated would be sent between the two countries by all lines in 1898. The year of 1901 was the record year in the transatlantic cable business. The company's recent experiments in cabling direct from Emden to New York without rehandling in the Azores have been quite successful.

The first section of the new German Atlantic cable, from Borkum to the Azores Islands, will be completed by December 31, 1903. The second section, from the Azores to New York, will be laid between that date and December 31, 1904.

The attorneys for the Commercial Pacific Cable Company have filed with the clerk of the Board of Supervisors a petition for a franchise to lay down and operate an underground conduit, with conduit boxes and manholes, to connect the main office in San Francisco with the coast near the Cliff House, a distance of about ten miles.

Those desiring electrical or telegraph books will consult their own interest by securing our book catalogue. We make it a point to fill all orders the same day they are received. Address TELEGRAPH AGE, 253 Broadway, New York.

Death of Morrell Marean.

Morrell Marean, manager of the Western Union Telegraph Company at Washington, D. C., died at his home in that city on June 22, the result of an accidental fall from a window. He had been in ill health, however, for several months, a sufferer from nervous prostration brought on from overwork.

Mr. Marean was born at Hartford, Pa., December 29, 1842. Learning telegraphy at an early age, in 1861 he became an operator for the old American Telegraph Company in Washington. Promotions followed, until in 1870 he was appointed night manager of the Western Union Telegraph Company. In 1873 he was made assistant manager, and in 1884 he became manager, a position he held up to the time of his death.



THE LATE MORRELL MAREAN.

Mr. Marean was an accomplished telegrapher, a man of fine executive qualities, tactful and genial in manner, and has done some very efficient work both for his company and its patrons on many different occasions.

During the Spanish-American war the deceased held the position of adviser for the Government in the matter of locating telegraph lines throughout the United States. His intimate knowledge of Government affairs and his close acquaintance with men of prominence in all walks of life made him a most valuable employe of the Western Union Telegraph Company. He was in the confidence of his employers in all of their business operations before Congress, and on account of his intimacy with practically all of the public men he was intrusted with many very delicate transactions requiring great tact and business ability.

Obituary.

Edward D. Bayley, 22 years old, an operator in the employ of the Mobile and Bay Shore Railroad, at Theodora, Ala., committed suicide June 18.

William F. Hunter, aged twenty-three years, of Washington, D. C., and formerly a telegrapher in the Washington office of The Associated Press, died in Denver, Colo., of consumption, on June 6.

Charles W. Price, aged sixty-two years, a well-known pioneer in telegraph and electrical work, died at his home in East Orange, N. J., on June 10. Mr. Price entered the service of the Western Union Telegraph Company at the age of seventeen, and in 1861 went to California to take charge of the affairs of one of the telegraph companies in that State. In 1866 he went to Siberia with the George Kennan party, which made a survey in the interest of the Transiberia Telegraph Company, which project was abandoned on the completion of the Atlantic cable. From 1883 to 1888 he was superintendent of the Baltimore and Ohio Telegraph Company, with headquarters in New York. Since that time he devoted his energies in the direction of electrical enterprises. For two years previous to 1900, Mr. Price was connected with the Montauk Fire Detecting Wire Company, a position he was compelled to relinquish on account of failing health.

Charles F. Wood, an old-time operator and a former general superintendent of the Western Union Telegraph Company, died at Newton, Mass., on June 14, aged eighty-five years.

Born in 1817, Mr. Wood was among the earliest of those who became interested in telegraphy. As long ago as on November 1, 1848, he was appointed an operator in the office of the Magnetic Telegraph Company at Washington, D. C., a fellow-operator at that time being Judge Lambert Tree, now of Chicago. In October, 1881, he became chief operator in the New York office, then located at Hanover and Beaver streets. It was during his administration that the first branch office was established by the Magnetic Telegraph Company at 203 Broadway, in the spring of 1852. On September 5, 1853, Mr. Wood was elected superintendent of the New York and New England Union Telegraph Company, when he removed to Boston, continuing as superintendent of the American Telegraph Company and the Western Union Telegraph Company until 1881, and remaining thereafter in the service of the latter company at Boston until his death. His telegraph career covered a period of fifty-four years. When it began, business between New York and Washington had to be intermediately repeated, and it was regarded as a great triumph when the direct working through between New York and Washington without intermediate repeating was accomplished.

Western Union's Earnings.

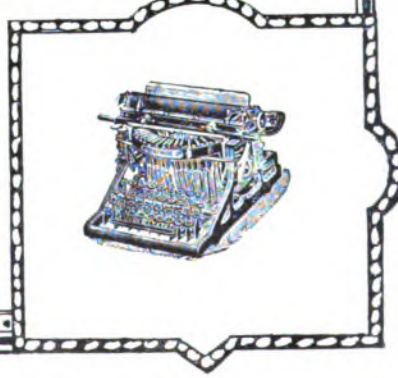
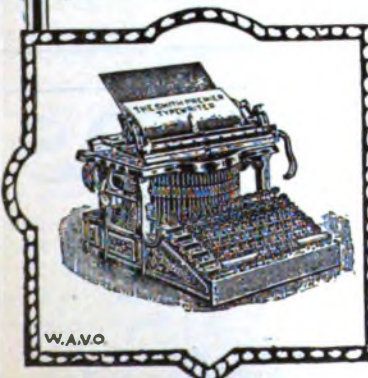
The Western Union Telegraph Company has put out its preliminary statement of earnings for the fiscal year ended June 30, these being estimated partly and compared with last year's actual figures. They showed an increase in net revenue of \$564,604, and in total surplus of \$1,389,239, as follows: Net revenue for 1902 \$7,249,852; for 1901 \$6,685,248; increase \$564,604.

TYPewriter EXCHANGES

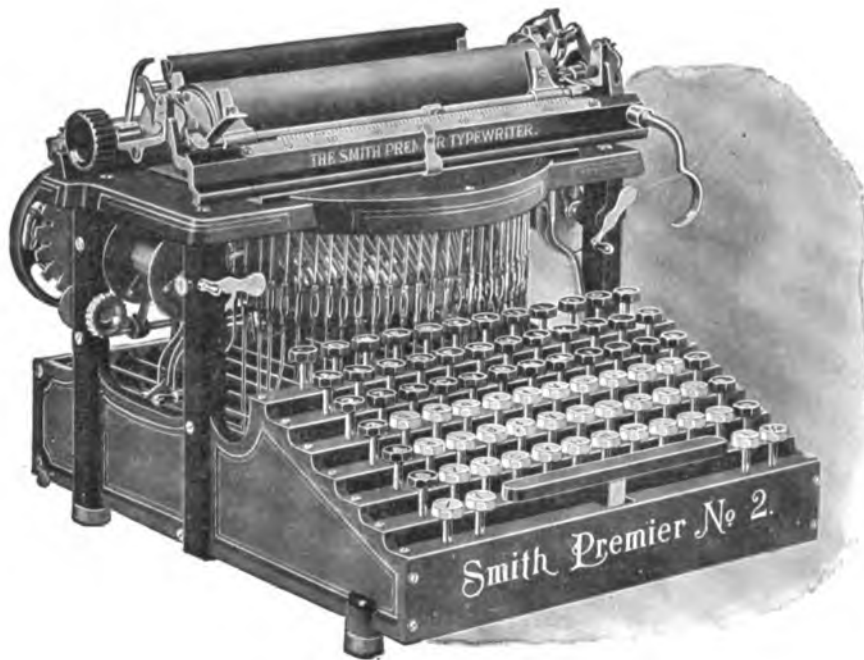
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NEW YORK, July 1, 1902.

NOTE.—We desire to state that back numbers of this paper, those issued more than six months prior to any current date, will be charged for at the rate of twenty-five cents apiece when they can be furnished. This price is fixed because of the necessarily limited stock we carry, and of the difficulty we commonly have in filling an order. Oftentimes the request is for papers of a more or less remote date, with the expectancy of being supplied at but ten cents a copy, whereas in order to obtain the desired issue we are ourselves frequently obliged to pay the larger sum, or even more. The growing value of complete files of **TELEGRAPH AGE** should cause our readers to carefully preserve their issues.

The Western Union Telegraph Situation.

It must be accepted as a good omen that the relations between the operating forces and the higher officials of the Western Union Telegraph Company are being better understood. This is as it should be; better judgment evidently is in the ascendant. Nevertheless, to a certain extent, operators still seem to entertain an ill-defined dread of removal. The fact that fear has possessed the soul of the average telegrapher in a few localities must be accepted as a correct understanding of the situation. If this disturbing element of uncertainty as to the future might be eliminated from all minds it is altogether probable that conditions would improve very perceptibly, and reach the normal, an end to be earnestly hoped for.

Now, while it is true that some dismissals have occurred in the operating force of the Western Union ranks, the actual percentage as to the whole number employed is, after all, a very small one. And it is claimed on the part of the management

that all such dismissals have been made for cause only.

Those who are familiar with the internal conditions of the Western Union Company when the new management assumed direction of affairs, recognize that in effect heroic measures were necessary in some directions in order to bring the company up to the standard required in the conduct of all successful business. This the new officials have undertaken to accomplish, and in carrying out a programme infinitely larger than was ever contemplated when they first took hold, yet made necessary by the situation as they found it, the result has been that the Western Union Company has been much in evidence lately. Much unfair criticism has been passed upon the actions of the officials and their motives have been decried. System and discipline and strict business methods must be adopted in the Western Union Telegraph Company as in every other organization, large or small. This obviously is for the good of all concerned, officials and men alike, and the status and its enforcement should be readily acquiesced in. All this is so plain that it should go without saying. The only requirements expected and demanded of the operators by the company is that the men shall faithfully perform their duties and be loyal to the company's interest. A compliance with these expectations certainly cannot be looked upon as arbitrary, and those who adhere to them need have no fear of molestation. The company is not going to discharge men just for the fun of the thing; common sense will rule and dictate otherwise; but at the same time it should not be forgotten that the law of equivalents must prevail in the corporation of the Western Union Company as well as elsewhere. This is a fundamental principle.

Merit and ability will perhaps be recognized as never before, opening up a brighter future than has heretofore been considered possible. Good men and true in the employ of the Western Union Telegraph company, and, in fact, any other telegraph company, have nothing to fear, and the scare, for it is nothing else, which has beclouded the minds of many, should be overcome and banished utterly. Let reason, fidelity to duty, and peace prevail!

What Others Say About the Pocket Edition of Diagrams.

The new volume on the telegraph published by **TELEGRAPH AGE**, and entitled "Pocket Edition of Diagrams and Complete Information for Telegraph Engineers and Students," by Willis H. Jones, the well known telegraph engineer of New York, gives every promise of being the most popular book on the subject ever written. The sale already has been enormous. It was a task of no little magnitude to send out the books called for by the advance orders, and now every mail brings additional demands for the volume.

The book evidently fills the proverbial "long felt want," for as one correspondent, a well-known wire chief puts it: "No operator who would keep posted in all that pertains to his profession can really afford to be without it." Digitized by Google

Mr. Jones' reputation as a practical man, yet in the harness of his profession, and as a delightful writer gifted with a style at once clear, vigorous, easily understood and showing a comprehensive, thorough and common sense grasp of his subject, gained as the electrical editor of TELEGRAPH AGE, has won for him and his book a recognition that appears to be widening every day. A number of testimonials highly complimentary to the book have been received from many parts of the country, from among which we select the following note from Mr. J. Fred Fiery, chief operator of the Western Union Telegraph Company at Hagerstown, Md., He writes: "The Jones' book received to-day and I want to say to you that it is the most complete and thoroughly up-to-date book on the inside working of the telegraph I have ever had the pleasure to purchase."

Mr. I. D. Hough, of the Postal Telegraph-Cable Company of Texas, at Dallas, Tex., writes:

"I am in receipt of the copy of 'Pocket Edition of Diagrams,' and must say that it is the most complete work on up-to-date technical telegraphy I have ever seen. It covers the ground almost completely. It is compact, concise, neatly bound and will certainly fill a long-felt want." Then he adds, significantly: "Please express me five copies at once."

Mr. J. C. Barclay, electrical engineer of the Western Union Telegraph Company, New York, writes: "I have examined carefully the Pocket Edition of Diagrams and Complete Information for Telegraph Engineers and Students, published by TELEGRAPH AGE, and, without hesitation, pronounce it to be the best book on telegraphy, every way considered, I have ever seen. I think the book is all that you have claimed for it. It conveys the best practical insight into the proper equipment of an up-to-date telegraph office; and even familiar as I am with all telegraph minutiae, it has served to refresh my memory on many important points, and proved a valuable reference. Another feature: The handy form of the book further commends it, and it shall always find a place either in my pocket or satchel as an accompaniment in the many trips about the country I am obliged to take."

Mr. Francis W. Jones, the electrical engineer of the Postal Telegraph-Cable Company, New York, has this to say: "I desire to express to you as the publisher, and to my namesake, Mr. Willis H. Jones, as the author, my high appreciation of the new book on telegraphy you have just brought out—'Pocket Edition of Diagrams,' etc. It is an excellent work and shows the author's familiarity with the subject discussed, no detail, apparently, escaping him. I have found the book of practical value, and it must necessarily prove of great benefit to the operator for it conveys the right kind of information in a very full and clear manner. The diagrams are splendid, and so numerous and so illustrative of every phase of telegraph work as to constitute a most important and useful feature of the book."

Errors like straws upon the surface flow; he who would seek for pearls must dive below.

A New Edition of Phillips Code.

The Phillips Code, by Walter P. Phillips, that ever popular method of shorthand arranged for telegraphic purposes, has once again made its reappearance in a new edition in familiar form, from the press of TELEGRAPH AGE. The work has been carefully revised and brought strictly up-to-date by Mr. A. P. Velie, a gentleman for many years identified with The Associated Press, New York, and thoroughly competent for this task. With the necessary additions it now contains, the volume presents a compendium of telegraphic abbreviations of such value that as a matter of fact, no operator really can afford to be without it. In truth, the demand for the book has steadily increased from year to year, and the work has long been considered standard. The new volume is everywhere received with unstinted praise, and orders for the book are very large. The price is \$1 per copy, and all orders should be addressed to J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

The Next Telegraph Tournament.

The next annual telegraphers' tournament, conducted under similar auspices as the one which occurred at Atlanta, Ga., on March 1, will take place at Cincinnati, O., some time next spring, the exact date not yet having been selected. Mr. I. N. Miller, superintendent of the Western Union Telegraph Company, Cincinnati, O., has been elected president by the tournament executive committee, which lately held a meeting at Atlanta, Ga. Mr. C. E. Sawtelle, manager of the Postal Telegraph-Cable Company, Cincinnati, O., has been elected vice-president. The president and vice-president are expected to make all the necessary arrangements, including the appointment of local committees to carry out the work connected with a tournament. No doubt the Cincinnati telegraph tournament will be the best telegraph contest ever "pulled-off" in this country, and as there is ample time for the "crack-a-jack" operators in all sections of the country to get in shape, there should be no excuse for lack of attendance from every part of the United States. Cincinnati is admirably and centrally located, being within easy reach of the boys residing in New York, Philadelphia, New Orleans, Chicago, and other places, as well as throughout Canada. It is confidently expected that the contestants will number at least one hundred, almost that number of promises having already been given.

Chicago Telegraphers Reinstated.

The Western Union Telegraph Company, according to President I. J. McDonald, of the Telegraphers' Union, Chicago, Ill., has reinstated nine telegraphers discharged on June 20, and has agreed to pay them full wages for the time they were off. Four of the discharged men had found employment with the Postal Telegraph-Cable Company, but the others returned to work. It is now believed by the union men that no further opposition to the organization will be shown.

Convention of the Railway Telegraph Superintendents.

The twenty-first annual meeting of the Association of Railway Telegraph Superintendents was called to order at 10 A. M. on June 18th, by President Charles F. Annett in the parlor of the Stratford Hotel, Chicago, fully fifty members being present when the meeting was declared open for business. This was the largest attended annual gathering in the history of the association, and the topics introduced were timely and of general interest to the railway telegraph service. The question of introducing typewriters into the small railway stations for the purpose of receiving train orders thereon instead of the operator using the stylus or pencil, as now generally used, elicited a lively discussion. A consensus of opinion was that the time had arrived when the railroad doors should be thrown open to this valuable typewritten substitute for written train orders. Composite circuits and the rapid development of the telephone in railroad service were also subjects that called forth general and valuable discussion.

The regular order of business was begun with the transferring of E. A. Smith and F. P. Valentine, of Boston, and C. G. Sholes of Topeka, Kansas, from active to honorary members, these gentlemen having been transferred to other branches of the service.

The new members elected were H. S. Balliet, of South Bethlehem, Pa.; C. H. Gaunt, of Topeka, Kan.; G. M. Hohl, of St. Joseph, Mo.; F. H. Van Etten, of Danville, Ill., and F. E. Clary, of Denver, Colo.

The secretary and treasurer, Mr. P. W. Drew, of Milwaukee, Wis., made a report showing the condition of the association to be satisfactory and a balance of \$59.40 as being in the treasury.

The salary of the secretary and treasurer was advanced from \$200 to \$250 per year.

The special committee consisting of C. F. Annett, P. W. Drew, C. E. Brown and W. S. Logue, which was appointed to make the arrangements for the Chicago meeting, went to some trouble in arranging a program of entertainment, which included theatre parties, carriage rides around the city and visits to various places of interest.

The Committee on Topics, through H. T. Simpson, of Richmond, Va., who was present, and E. A. Chenery, of St. Louis, Mo., in a letter to the secretary, reported several papers had been prepared which would be read and discussed at this meeting. A committee made up of L. B. Foley, G. L. Lang and C. P. Adams to select the next place of meeting was appointed by the president. This committee is to report its choice to the executive committee of the association not earlier than January 1st next.

The following were then elected as officers of the association for the ensuing year: President, J. H. Jacoby, of South Bethlehem, Pa.; vice-president, W. J. Holton, of Chicago, Ill.; secretary and treasurer, P. W. Drew, of Milwaukee, Wis.

F. H. Tubbs, superintendent of the Western Union Telegraph Company; E. J. Nally, general

superintendent of the Postal Telegraph-Cable Company, and P. W. Miller, of the Long Distance Telephone Company, extended the courtesies of their respective companies to the members.

At the afternoon session W. E. Gilmore, general manager of the Edison Manufacturing Company, of Orange, N. J., and C. E. Brown, of the Central Telephone Company, of Chicago, were elected honorary members of the association, after which W. J. Holton, of Chicago, read his paper on "Typewritten Train Orders," which was discussed by almost every member in attendance. This interesting paper is printed elsewhere in this issue. The points brought out in its discussion were to the effect that a great improvement in legibility of copy, more matter being placed on a page, the operators' ability to receive from the wire greatly enhanced, and the general service much improved by the use of typewriters. A motion was unanimously carried to encourage the use of typewriters for train orders, it being declared to be the proper and best method of accomplishing this work.

Charles Selden moved to appoint a committee to confer with the train order committee of the American Railway Association, looking to the rescinding of any rules prohibiting the use of typewriters for train order work. C. A. Darlton, Charles Selden and H. V. Miller were appointed such committee, with instructions to report at the next meeting of the association.

The remainder of the afternoon session was occupied by U. J. Fry, of Milwaukee, who exhibited blue prints and explained the combination of a quadruplex system used on his road, a single wire being worked into one side of the same, through a Toye repeater; also a diagram of a duplex circuit was shown on which were seventeen way offices cut in through that number of 150-ohm relays, the latter not disturbing the "balance" to the slightest degree. The object is for the terminal stations to utilize the circuit as a duplex when business is heavy enough to warrant it, and a way wire for the benefit of the seventeen offices midway when those points have messages to transmit. The way offices open the circuit and make a prearranged signal when any of them wish the terminal points to switch from duplex to single working.

The second day's session was called to order on Thursday, June 19th, at 10 A. M., by President Jacoby, who introduced Mr. B. Bidwell, of Grand Rapids, Mich., who read his paper on telephoning from moving trains. Mr. Bidwell is an old-time electrical inventor, and in the early days of the telegraph he was an associate of Prof. Morse, the inventor of the Morse telegraph system. He prefaced his paper with some old-time telegraph history connected with the inventor of the telegraph which had come under his own observation.

Mr. C. F. Annett followed Mr. Bidwell with a detailed description of the extensive telephone system in use on the Illinois Central Railroad. The remainder of the session was devoted to telephone discussion, many valuable points being brought out. The most important of which was the statement made by Mr. L. B. Foley, of New York, superin-

tendent of telegraph of the Delaware, Lackawanna and Western Railroad. Mr. Foley announced that in connection with his telephone system owned and used by the railroad company arrangements had been made with the Bell Telephone Company for the installation of public telephones in the railroad stations, with the result that the railroad's share of the revenue was sufficient to return to the company 5 per cent. interest on the amount invested in its telephone property.

The session on Friday, June 20, began at 9 A. M. and lasted until 1 P. M., during which hours considerable business was transacted and much discussion of important papers took place.

A resolution was adopted ordering an amendment to the constitution permitting electrical supply people and those engaged in kindred interests to become members of the association. The proposed amendment will be reported at the next annual meeting. Such members will have all the privileges of active members except that of voting. The dues for associate members will be \$5 per annum.

Mr. O. C. Greene, of St. Paul, Minn., explained the metallic telephone system in use on his road, whereby telephone circuits are obtained over ordinary telegraph wires without the latter system being interfered with.

Mr. C. S. Rhoads, of Indianapolis, Ind., chairman of the committee on universal code, reported that the matter should be taken up with the American Railway Association, whose support should be obtained in the preparation of a universal code for general railroad service.

The subject of overhead wires at railroad crossings was a question that caused considerable discussion, and the secretary was instructed to incorporate in the printed proceedings of the meeting the laws governing such crossings which have been enacted within the past few years by the States of Indiana, Ohio and Missouri.

Mr. J. J. Nate, of the Stromberg-Carlson Telephone Manufacturing Company, Chicago, Ill., was called upon to address the assemblage on the subject of telephones and their uses in connection with the railway service. Mr. Nate, being one of the pioneer telephone manufacturers, was in a position to give the members of the association some valuable points relating to this important subject. His extended and well delivered remarks were greatly appreciated.

After an executive session lasting one hour the convention adjourned.

Among those present were: C. F. Annett and wife, Chicago, Ill.; W. F. Williams, Portsmouth, Va.; L. B. Foley and wife, New York, N. Y.; W. W. Ryder and wife, Chicago, Ill.; G. M. Dugan and wife, Chicago, Ill.; O. C. Greene, St. Paul, Minn.; U. J. Fry and wife, Milwaukee, Wis.; C. A. Darlton, Washington, D. C.; G. C. Kinsman, wife and daughter, Decatur, Ill.; George L. Lang, Chattanooga, Tenn.; A. R. Swift and wife, Chicago, Ill.; C. Selden and daughter, Baltimore, Md.; G. H. Thayer and wife, Chicago, Ill.; E. E. Torrey, Detroit, Mich.; H. C. Hope and daughter, St. Paul, Minn.; S. K. Bullard and wife, Sedalia, Mo.; P. W.

Drew and wife, Milwaukee, Wis.; K. McKenzie, Jackson, Tenn.; H. T. Simpson, Richmond, Va.; J. H. Jacoby and wife, South Bethlehem, Pa.; W. J. Holton and wife, Chicago, Ill.; W. P. McFarlane, Omaha, Neb.; A. R. Lingafelt and wife, Topeka, Kan.; G. F. Weidman, Detroit, Mich.; G. M. Hohl, St. Joseph, Mo.; F. H. Van Eften, Danville, Ill.; F. E. Clary, Denver, Colo.; H. V. Miller, Bloomington, Ill.; P. W. Miller, New York; W. S. Logue, Chicago, Ill.; E. R. Logue, Chicago, Ill.; A. P. Eckert, New York; W. S. Eckert, New York; H. S. Young, Jr., New York; Jesse H. Bunnell, New York; W. E. Gilmore, Orange, N. J.; Charles McLaughlin, New York; J. B. Taltavall and wife, New York; E. W. Vogel and wife, Chicago, Ill.; E. E. R. Tratman, Chicago, Ill.; Douglas A. Brown, Cincinnati, O.; Benson Bidwell, Grand Rapids, Mich.; Edwin N. Hills, Chicago, Ill.; A. G. Francis, Chicago, Ill.; J. E. Gordon, Newark, N. J.; A. R. Pardington, Brooklyn, N. Y.; C. S. Rhoads, Indianapolis, Ind.; H. A. Tuttle, Minneapolis, Minn.; F. V. Grace, Chicago, Ill.; C. E. Brown, Chicago, Ill.

NOTES AND EXHIBITORS.

Mr. Charles McLoughlin and V. C. Grace, represented Messrs. J. H. Bunnell and Company, of No. 20 Park Place, New York. A full line of modern telegraph instruments was displayed, and Mr. McLoughlin was kept busy explaining to his old friends the many recent improvements in telegraphic apparatus adopted by the firm of which he has been the head for over twenty-three years. This enterprising firm distributed a useful rubber stamp dater, inscribed "Up-to-Date," which was much appreciated by the recipients.

The Bunnell Telegraphic and Electrical Company, of New York, was represented by H. S. Young, Jr., and Jesse H. Bunnell. Samples of their telegraph instruments were shown.

Wyckoff, Seamans and Benedict, the manufacturers of the Remington typewriter, were represented by D. E. Carpenter, the Chicago manager, and Charles A. Middendorf, an expert typewriting operator, whose typewriting work was favorably commented upon by all.

The Safety Insulated Wire and Cable Company, of New York, was represented by Avery P. Eckert, its assistant treasurer.

The Crocker-Wheeler Company, of Ampere, N. J., was represented by F. H. Holbrook, E. E., the Chicago representative, who distributed pamphlets of motor-dynamos and dynamotors for telephone and telegraph plants.

The National Conduit and Cable Company, of New York, was represented by W. S. Eckert, of New York.

The Edison Manufacturing Company, of Orange, N. J., was represented by W. E. Gilmore, the general manager of the company, and by the Western manager, W. S. Logue, of Chicago. This company, together with the Central Electric Company, of Chicago, represented by Charles E. Brown, provided carriages to convey the delegates around the city, and the visitors were also joint guests of these two companies at a theatre party on the evening of June 18.

The New York and New Jersey Telephone Company was represented by J. E. Gordon of Newark, N. J., special agent of the company.

On Friday afternoon, June 20, the delegates visited the Stromberg-Carlson Company's plant, which was inspected. The process of telephone manufacture was studied, and a very enjoyable and instructive two hours were spent in the immense factory, where over 1,500 employees were engaged in the manufacture of telephones. Later in the day the delegates visited the Illinois Central Railroad general offices, where an inspection was made of the Ericsson telephone system, which is applied to ordinary telegraph wires and which was in experimental operation between Chicago and Kensington, a distance of ten miles. By means of this system ordinary telegraph wires can be utilized for telephone purposes. The demonstration was a complete success.

The New President of the Association of Railway Telegraph Superintendents.

Mr. J. H. Jacoby, of South Bethlehem, Pa., the newly elected president of the Association of Railway Telegraph Superintendents, is the superintendent of telegraph of the Lehigh Valley Railway Company.

Mr. Jacoby was born August 27, 1861, at Pleasant Valley, Pa. He entered the telegraph service in the fall of 1879 as an operator for the Lehigh



J. H. JACOBY, OF SOUTH BETHLEHEM, PA.,
President Association of Railway Telegraph
Superintendents.

Valley Railroad Company at Furnace Station, Allentown, Pa. The same year he was transferred to Mount Carmel, soon after going to the general office at Mauch Chunk, Pa., where he was employed a operator, manager, chief operator, and wire chief, respectively. In 1888, when the general offices of the Lehigh Valley Railroad Company were removed to South Bethlehem, Pa., he accompanied

the transfer, and there became division operator, acting superintendent of telegraph, and finally superintendent of telegraph, succeeding Mr. J. W. Lattig to that office in October, 1898.

The Lehigh Valley Railroad, largely through the influence of Mr. Jacoby, was one of the first to introduce dynamo and storage battery currents for supplying its telegraph wires, utilizing for that purpose small water motors when other power was not available, thus adding very largely to the efficiency of its telegraph equipment. It was on this line of road, in 1880, that wireless telegraphy, or as it was then called, "train telegraph," was first operated, messages being sent to and from trains moving at a rate of 60 miles per hour, with a perfect degree of accuracy.

Typewritten Train Orders.*

The legibility of a train order is of the utmost importance, and we throw all the safeguards around a train order that is possible to do, because of the loss of life and property which may result from imperfect orders, hence anything that will improve the legibility of the order is to be desired.

There is nothing more legible than type. The typewriting machine has won its way right from the start in every field in which the pen and pencil was hertofore used, until it is now in use in almost every office in the country for the purpose of correspondence, etc. The Western Union Telegraph and Postal Telegraph-Cable companies use it to the exclusion of the pen and stylus in their main offices all over the country. These companies make it a condition that all operators applying for work in main offices must be "machine men" and must furnish their own machines. Operators, especially the younger generation, are realizing that they are not up-to-date unless they can operate a typewriter, and the result is that now, when operators apply for positions on our railway systems, they frequently say: "I am a machine man, can take anything on a machine." Indeed, this is becoming so true that in many cases if it is necessary for a machine man to copy with a pen or stylus he cannot take a legible copy, and soon tires.

Let us consider the advantages of typewritten train orders: 1. Legibility. 2. The fact that much more reading matter can be placed without confusion in the space provided, which is certainly of advantage, especially in "10" orders, which are frequently used for special notices to trains. The use of the typewriter would also make it possible to use more than one movement in an order—a condition which, in the opinion of the writer, would be safer than for the crew to receive four or five orders for as many movements at one station. They are especially adapted for special schedules and work train orders, and are frequently used for that purpose in train dispatching offices where there is time to prepare them in advance.

The chief difficulty in the way of using typewritten orders lies in the fact that railroad operators

*Read by W. J. Holton, of Chicago, at the Convention of Association of Railway Telegraph Superintendents, held at Chicago, June 18, 19, 20.

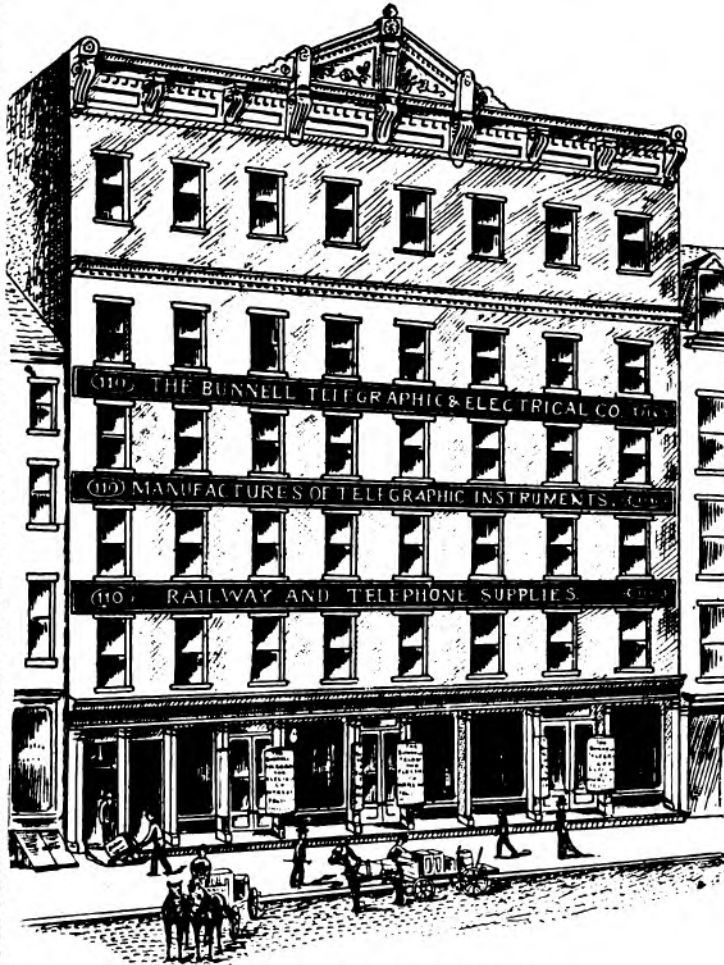
THE BUNNELL TELEGRAPHIC & ELECTRICAL CO.

110-120 BEEKMAN STREET, NEW YORK.

FACTORIES: NEW YORK AND MILFORD, CONN.

MANUFACTURERS OF

Telegraph, Telephone, Railway and Electrical Supplies.



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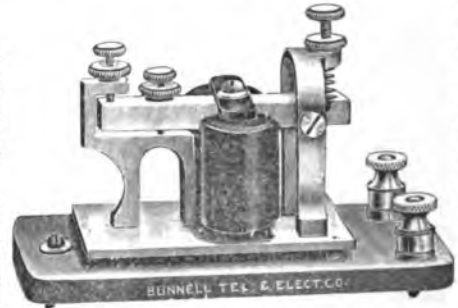
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**BEEKMAN DRY BATTERY,
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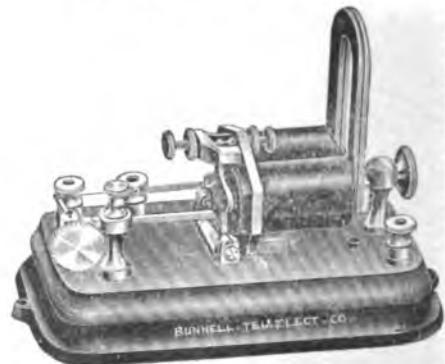
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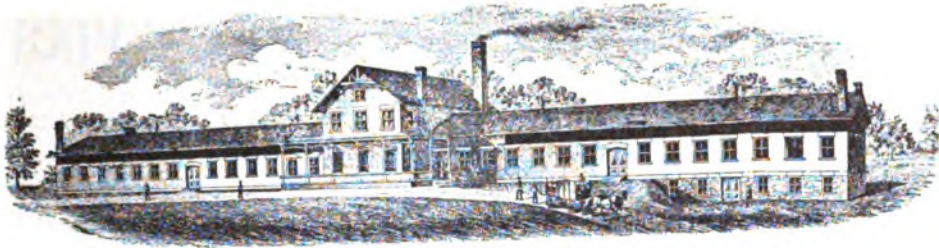
ALUMINUM LEVER SOUNDER.



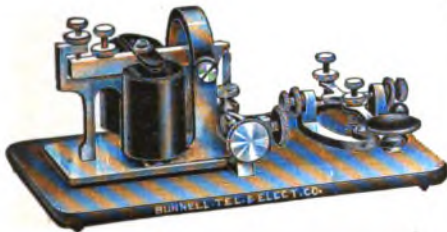
STEEL LEVER KEY.



RAILROAD RELAY.

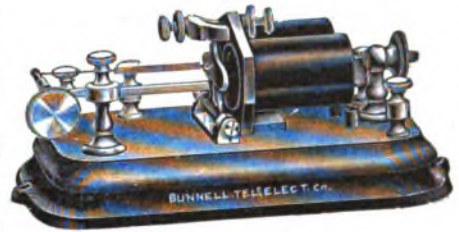


OUR CONNECTICUT PLANT, MILFORD, CONN.



MAIN LINE SOUNDER RELAY.

Write for
Catalog and
Prices.



GIANT RELAY.



ADJUSTABLE
RESONATOR.

We have
facilities
for turning
out goods
in large
quantities
and at
lowest
prices.



BEEKMAN MEDICAL BATTERY'

We
guarantee
our
instru-
ments to
give
satisfaction
and can
make
prompt
deliveries.



SKIRROW
RESONATOR

District Messenger Calls, Police, Patrol, Watchman's Burglar and Fire Alarm Boxes and Equipment.



OUR No 5 OUTSIDE
FIRE ALARM BOX.



AUXILIARY
FIRE ALARM.



BURGLAR AND CALL
BOXES.



THE BUNNELL TELEGRAPHIC & ELECTRICAL CO.
110-120 BEEKMAN STREET, NEW YORK.

The Remington Typewriter

offers the following advantages for

Telegraphic Train Orders.

Legibility.

The Remington is especially notable for the great variety of clear legible types which it offers a choice of. For this service, Large Pica (No. 3), Great Primer (No. 4), and Extra Large Great Primer (No. 5) are especially recommended. Samples sent on application.

Economy.

The Remington is economical to maintain. It's mechanism is simple and everywhere accessible. It has few adjustments, does not easily clog with dirt or dust. Operators quickly learn to use and care for it. Every portion of the ribbon is used. It economizes office supplies. A single pad of each form used, with carbon interleaved, from which any required number of blanks can quickly be taken, replaces numerous clips arranged for manifold messages. The saving in carbon alone is an important item of machine economy.

Durability.

The Remington is thoroughly made. It bears an honorable reputation for honest construction. It does not get out of order easily, even under hard service. It is the only machine which can be safely sent into out-of-the-way places.

Speed.

Simplicity of design and perfect construction throughout makes the Remington capable of any speed. It does not stick or balk at critical moments, but will promptly respond to any emergency call. It greatly increases speed of transmission as any operator who knows how to handle the Remington can keep up with the most rapid sender.

Manifolding.

The Remington is unequalled for this work. Any number of clear legible copies are easily made. Blanks are quickly inserted and removed.

Facilities.

A strong and widely extended organization is behind the Remington. Its representatives are everywhere. Every important city has a well equipped branch prepared to give instant attention to every requirement of Remington users. Remington manufacturing resources are the most extensive in the world. Special requirements, type, etc., can be promptly supplied. Expert service in adapting the use of the machine to new requirements can always be commanded.

Opportunities.

The Remington operator is in line with the best opportunities in his profession. The best places are only open to machine men nowadays. Press and commercial messages are now handled upon the typewriter, and the Remington Typewriter is the one that does the work.

SEND FOR NEW ILLUSTRATED CATALOGUE.

Wyckoff, Seamans & Benedict,

(Remington Typewriter Co.)

327 Broadway, New York.

generally have no machine, the cost of a machine cutting quite a figure with them.

It is a well-known fact that after a period of from five to eight years a person writing constantly with a pen will commence to deteriorate in legibility, and frequently he succumbs to what is known as "writers' cramp," practically placing him hors de combat so far as his use as a writer is concerned. Such persons are usually, on account of the practical knowledge acquired by their years of experience, valuable to a company, and if possible should be retained in the service. By the use of the typewriter this condition would be eliminated, as the more one uses the machine the more expert he becomes, and no one ever heard of a case of writers' cramp resulting from its use.

Another difficulty is the style of train order blanks used by most companies, viz.: the manifold sheets with carbons. One can take more copies with them than with any other style on account of their being so thin. But the difficulty lies in preparing them for the machine and the fact that they are liable to rewind on the roller of the machine. And, too, the manifold is apt to slip so that on the under copies the letters and figures show in the wrong place.

What is known as the Weeks train order tablets, which are manufactured to copy 3-5-7, etc., are the most convenient forms I have seen for the typewriter. These blanks have carbonized backs, except the bottom sheet, but they have their drawbacks from the fact that more than seven copies cannot be successfully taken, and five copies are preferable. And, too, they are objected to by the train crew, who say they cannot handle them without soiling their hands, especially in wet weather, but they are handy for the operator.

I think the best solution of this trouble would be to use paper a little heavier and thicker than the manifold. Have them put up in blocks of 100 same as now, and use carbon sheets between, or following out the idea of the Weeks tablet, have them manufactured in blocks of 3-5-7, etc., and put up in boxes, but instead of carbonizing the backs and folding them, leave them plain and have them fastened to the top in the same manner that message blanks are put up. It would then be a simple matter for an operator to have a number of them already prepared by placing carbon sheets between. From seven to nine copies can be successfully taken in this manner.

When the typewriter comes into common use for this purpose on a road the style of the order blanks could be changed a little to make it more convenient for the machine. As it is now, the manipulator has to do considerable changing in order to bring the number, date and address into the places provided for them. But an expert man can do this readily enough.

It has been said that a man is more liable to make an error by striking the wrong letter or figure on his machine. I do not think this criticism holds good. Errors are frequently made in copying with a stylus or pencil, and the rules require that the order shall be resent and recopied. The same rule would apply to typewritten orders, but a good ma-

chine man seldom makes a mistake, and when he does he detects it just as quickly as he would if copying with a stylus.

One difficulty which every one of you who have graduated from the operators' table have experienced was in copying orders on the manifold or tissue blanks. Frequently you come across a top sheet which simply will not take the stylus without tearing. The result is a very unsatisfactory copy, and occasions much profanity. The typewritten order does away with this.

Another objection I have seen stated was from a legal point of view, arguing that unless an operator copied an order autographically he could not go into court and swear that he had taken it off the wire just as it came. On this point I have the opinion of an eminent railroad attorney that a machine-copied order with the name of the receiving operator in autograph in the space provided for that purpose could not possibly be questioned.

The ideal and quickest way to secure typewritten train orders would be to buy your own machines and install them in every office on the line and require all operators to learn to use them as quickly as possible. To quote from the opinion of a superintendent: "It occurs to me that any road going into the typewritten train order business should consider the typewriter a portion of the telegraph office equipment." This same superintendent advocates a special size type for train order work, to be about one-fourth of an inch square and all capitals. This I think would be the best, but not a necessary condition. The larger the type the plainer the copy and a larger number of legible copies possible. A pica typewriter will not do for train order work, as it is difficult to get more than four or five good copies; but the ordinary standard machine, such as the Remington, Smith Premier, etc., will do satisfactory work.

In "The Train Dispatchers' Bulletin" for March of this year there appeared an article by Mr. C. A. Parker, superintendent of telegraph of the Denver and Rio Grande Railroad, read before the Rocky Mountain Railway Club, Denver, Col., in which he gives the opinions of several officials and others on Western lines in regard to this subject, all of which are favorable except one. In my correspondence with many members of this association I find only one road whose management prohibits their use. (Reasons not given.) All the others who responded were favorable to their use, but I find they are in actual use only to a limited extent. I am informed that the Southern Pacific officials are encouraging their use by sending expert machine men along the line giving object lessons.

It is all a matter of education and expense. Any road desiring their speedy adoption will have to furnish their own machines; but, as I said before, operators are taking to their use rapidly, and many now own machines, and by placing them at principal train order stations we can all gradually adopt them.

I will close by quoting the experience of one of our operators when he handed a typewritten order to a conductor one night: "That's the stuff," said the conductor; "give us something we can read."

Postal Displaces Western Union on Pennsylvania Railroad.

The oft-repeated rumor of a change in the telegraph system along the route of the Pennsylvania Railroad was confirmed on June 26 by William H. Baker, vice-president and general manager of the Postal Telegraph-Cable Company, who announced that on July 1 the service of the Postal Company would supersede that of the Western Union Telegraph Company along the lines of that road east of Pittsburg and Erie, Pa., and that upon expiration of other contracts of the Western Union the Postal wires would be strung along to the western limits of the road.

The present change effects the telegraph work along 4,745 miles of railroad and will add about 1,000 offices to the Postal service, with a business estimated at about \$750,000 per year.

The Postal Company already has three main lines of wire along this route and about 100 offices. By the terms of the contract it will string wires on the poles owned by the railroad and will use railroad wires until the new ones can be strung. The Western Union, which had a twenty-five years' contract with the company, will have six months in which to remove its wires and poles from the railroad right of way.

Most of the operators along the railroad line employed by the Western Union, will be taken into the service of the Postal Company. The new contract, one of the largest on record, is for fifteen years, and will greatly change the telegraph service in the district east of the Ohio River, for the Western Union will probably retain its offices outside of the railroad stations and a greater competition will result in the handling of telegraph business in the separate offices.

Although reticence is observed in regard to the pecuniary conditions of the deal, it is understood that the Postal will transmit free \$100,000 worth of messages for the railroad company yearly, instead of the unlimited franking allowed by the Western Union, and that it will pay \$70,000 per year for the use of the railroad company's poles and maintenance of wires by the railroad company, as against \$60,000 net paid by the Western Union for mere right of way.

Back of this vast deal is said to be the fight between the Pennsylvania Railroad and the Gould interests for supremacy in the traffic between Pittsburg and the Atlantic coast.

The Pennsylvania still holds that supremacy, but recent absorptions of roads by the Goulds have seriously threatened that monopoly. The extension of the Wheeling & Lake Erie road to Pittsburg by the Wabash was the first step, followed by the absorption of the West Virginia Central and the Western Maryland Railroad.

The bed of the Pacific, more so than that of other oceans, presents a constant series of ups and downs, due to its volcanic formation; and it is these alternating ridges and depressions and the likelihood of fresh volcanic upheavals, which render precarious the existence of a submarine

cable in the Pacific. Of course, soundings have been taken along the proposed cable route and a general idea of the varying depths of water in which the cables will have to be sunk has been gained.

Mr. Gifford's Farewell Letter.

Mr. Sidney B. Gifford, of Syracuse, New York, whose resignation as district superintendent of the Western Union Telegraph Company, was lately referred to in TELEGRAPH AGE, has issued the following circular letter addressed to the employees of the fifth eastern district of that company, under date of June 16:

"To-day closes my official relations with the Western Union Telegraph Company, after more than fifty-two years of continuous service with that company and its predecessors; or nearly thirty-eight years of that period as district superintendent. In severing these relations with yourselves and the company you serve, I cannot refrain from giving expression to my heartfelt appreciation of your kindness and consideration, shown at all times and under all circumstances—as well as of the cordial support and co-operation which I have always been enabled to count upon from you. The same support, and like co-operation, I earnestly invoke from you for those who are taking up the work I now lay down. In bidding you farewell, be assured, one and all, of my best wishes for your future welfare and happiness."

Recent New York Visitors.

Mr. W. A. Sawyer, manager of the Western Union Telegraph Company, Waterbury, Conn.

Mr. Astley C. Terry, manager of the American Telephone and Telegraph Company, Pittsburg, Pa.

Mr. C. E. Diehl, manager of the Postal Telegraph-Cable Company, Harrisburg, Pa. Mr. Diehl was accompanied by his wife.

Mr. H. Van Devender, of the Western Union Telegraph Company, Atlanta, Ga., and secretary and treasurer of the telegraphers' tournament association.

Mr. E. Rosewater, an old-time telegrapher and a member of the United States Military Telegraph Corps, now proprietor of the Omaha, Neb., "Bee."

The wireless telegraph operator of the future at New Orleans called up the Washington station. "What's the matter with Pekin?" he asked.

"Been trying for half an hour to get them," replied the Washington operator, "but it's no use. There's a Japanese girl in charge there and she's flirting with a missionary fellow somewhere up in the Himalayas."

Every telegrapher who loves his profession, who is determined to master its technicalities, and thus insure for himself the confidence and respect of his official superiors and place himself in the direct line of promotion, should subscribe for TELEGRAPH AGE.

LETTERS FROM OUR AGENTS.

[Advertising will be accepted to appear in this department at the rate of five cents a word, announcements to be enclosed with a border and printed under the name of the place of the advertiser. The special local value attached to advertising of this character will be apparent. Our agents are authorized to solicit advertisements for these columns, and further information on this subject may be obtained on application.]

LOS ANGELES, CAL., NOTES.

Dr. C. S. Porter, formerly of the Western Union Telegraph Company and now of Cedros Island, Mex., has been spending two weeks in Los Angeles.

Robert Vaughn, manager of the Western Union at El Paso, Tex., is in the city visiting relatives.

Grace E. Thomas died at East Los Angeles on June 8. Her funeral was attended by many friends from both the Western Union and Postal Telegraph-Cable companies, and many beautiful floral offerings were sent.

MONTREAL, QUE., GREAT NORTH WESTERN.

The male operators of this office are very grateful to Circuit Manager Thomas Rodger for the shortening of their hours by thirty minutes. Formerly the male members of the telegraph profession worked nine and one-half hours, the females nine hours and the splits eight and one-half hours. Under the new schedule straight day operators work nine hours, splits and night operators eight hours. Our popular traffic chief R. E. McCord had the arranging of the men and he so admirably adapted himself to the occasion that not one word of complaint was heard from anybody. The new schedule went into effect June 1.

Robert Kane and Ida McCleve, both operators in this office, were married on June 11. Sincere well wishes of their associates accompany them.

Arrivals: Messrs. Ingraham, Lappin, Anderson, Johnson Leroux and Mahon.

W. D. Scott, an old operator, has been promoted to be assistant chief operator.

Miss Peeples made a visit recently to her mother who was ill in Nova Scotia.

WASHINGTON, D. C., POSTAL.

In publishing the personnel of this office and our most important branches in the issue of June 1, the name of S. R. Turner, who is in charge of the Fish district office, was inadvertently omitted.

Mr. H. C. Wooden, who is in charge of the Howard House branch, is again confined to his home on account of sickness, and his condition is said to be critical. His place is being filled by Mr. O. Hullings, of the main office.

On account of night sessions in the Senate our press work is heavy.

Mr. W. J. Scott, of the Chesapeake and Ohio Railroad, who is located in Richmond, Va., passed through this city several days ago en route to Cincinnati to spend his vacation with friends there.

CHICAGO, ILL.

TELEGRAPHERS' TYPEWRITER CO.

REBUILT TYPEWRITERS
LEADING MARKS
GOOD AS NEW.

SOLD AT BARGAIN PRICES AS RENTED ANYWHERE

ASK FOR YOUR CHOICE OF MACHINE.

122 LA SALLE ST. CHICAGO.

O. T. ANDERSON, MANAGER.

Wholesale Dealers in Platen and Parts.

Agency for Telegraph Age.

POSTAL.

Messrs. Bassett and Swift have returned from their vacation.

Messrs. Seaman and C. Forcey are spending well-earned vacations in the country.

Messrs. J. J. Lyons, Bland, Clifford, J. Ward, Patterson and Burmeister are recent arrivals.

F. A. Smith has resigned to accept a position with Swift and Company, United States Yards.

C. A. Wallace has resigned at the stock yards to accept a better paying position with the Western Union main office.

Mr. Wall service clerk at the Board of Trade office, has just returned from a two-weeks' sojourn at the South. Mr. Thiault, his assistant, is now absent on his vacation, visiting friends in the East.

WESTERN UNION.

Bert Johnson handled the reins in the Indiana and Michigan division during the absence on sick leave of Chief Crittenden.

Division Chief B. F. McKee took a trip to Des Moines on business.

Mrs. Charles Finley, who was a visitor here a few days ago, was greeted by many friends. She is looking quite well, considering her long siege of sickness.

W. A. Scholian, formerly assistant on the loops, nights, has resigned to accept a position with a local firm.

A photograph of the office, showing both east and west ends, was recently taken.

Former Manager Charles F. Ames of Des Moines, Ia., was a visitor here while en route to Boston, Mass.

Loop Chief Frank Donaldson has been absent on sick leave.

The Decoration Day parade drew into the marching ranks a great many telegraphers, all of whom acquitted themselves most creditably. This was especially noticeable among the members of the Illinois Signal Corps Company, made up of both Western Union and Postal men, whose fine appearance and splendid marching drew forth warm praise from Col. Stuart, of the Second Regiment. A further and much greater compliment was paid them by Governor Yates in the selection of the company as his personal escort during the parade. Lieut. D. N. Williams was in command of the company, with H. S. Deacon as first sergeant, Capt. McConnell being with the Spanish-American Association in the

parade. Assistant Division Chief Thomas R. Quinlan, who is captain of Company K, Seventh Regiment, I. N. G., an accomplished officer, also came in for a share of praise for his soldierly bearing. The roster of the non-commissioned officers and privates of the company is as follows: Sergeants, H. S. Deacon, C. K. Cralle, A. H. McNeal; commissary sergeant, C. L. Yancey; quartermaster's sergeant, D. E. Cosgrove; corporals, W. E. Crosby, E. H. Muhlick, J. W. Bowen, F. W. Sherwood, W. E. Goodrich; privates, N. G. Anderson, E. F. Atwood, Charles Bartel, O. G. Billingsley, J. J. Brady, E. J. Chronister, P. R. Cullis, J. T. Deacon, R. A. Ditch, J. F. Greenawalt, A. J. Hefferman, J. A. Hefferman, H. W. Lynch, G. E. MacAuley, William Merton, Ralph Middleton, W. E. Miller, J. William Moss, J. E. O'Neil, A. T. Price, W. K. Sanderson, E. J. Specht, F. Stevens, W. Stevens, T. R. Taylor, J. J. Uhel, J. B. Ward, B. Williams.

Yes, there are a few of the old-time telegraphers left as follows: Elmer Stephens, who saw service in the field during the Civil War in the Twentieth Iowa Volunteer Infantry, afterwards being detached for telegraphic duty at the headquarters of Gen. John M. Schofield, Department of the Missouri, Fifth Army Corps; Newton L. Boydston, who was attached to Battery A, Second Illinois Light Artillery, following the varying fortunes of that command through the entire war; John D. Walker, who was in the famous Eighth Wisconsin Infantry, "The Eagle," or "Old Abe" regiment; J. Newton Crittenton, who was a captain's clerk, then in the military telegraphic service of the Armies of the Cumberland and Tennessee, afterwards first lieutenant in the First Michigan Engineers and Mechanics, and had command of Company G of that regiment during Sherman's "March to the Sea"; and Frank M. Crittenton, who enlisted as a musician in Company K of the same regiment on September 1, 1861, serving for fourteen months in the field, when he was sent home by the regiment surgeon to die, but the surgeon was fooled, for he died first.

PHILADELPHIA, PA.

RARE OPPORTUNITY for buying contents of well established stationery store, with several paying specialties. Very desirable town. Good reasons for selling. Address, L. P. ASH, West Chester, Pa.

WESTERN UNION.

President R. C. Clowry, accompanied by General Superintendent B. Brooks, Electrical Engineer J. C. Barclay and Superintendent John B. Altberger, inspected this office recently. The recent order relative to all operators adopting typewriters for receiving messages was very gracefully complied with by all those not already proficient in that line. Salaries should be increased accordingly, and we feel that they will be, too.

POSTAL.

A most distressing experience befell the lot of Chief Operator C. A. Stimpson, who, a couple of weeks ago, arrived home to find his dwelling a deso-

late sight from the ravages of a neighboring fire. The entire interior was practically wrecked. Fortunately no lives were lost and an insurance helped to assuage the grief consequent to the destruction, coming, as it did, so soon after settling down in the anticipation of a pleasant home.

Handsomely renovated within and without, the appearance of the North Third Street Leather District office has become so altered as to make the place unrecognizable to many. In addition to their comfortable surroundings, a prosperous business also tends to encouragement.

The exodus of summer vacationists has already begun, Mrs. L. I. Dolphin having arranged for a three-months' leave; Miss Nellie Squire following on July 1st, to remain away one month.

It required two weeks at Cape May for Mr. Joseph Eder to run new loops, prepare hotel offices, and get things in readiness for an anticipated brisk season.

Among the new arrivals we find J. P. Lenahan and R. S. Maurer, from the Philadelphia and Reading; D. J. Duff and C. Goldstein from New York City.

Traffic Chief Geo. W. Dunn, accompanied by his wife, spent a few days visiting relatives in Stroudsburg, Pa.

Managers H. E. Hesse, of Reading, Pa., and C. E. Diehl, of Harrisburg, Pa., were recent visitors.

A former and popular employee at this office, Miss Emma Murray, since with a down-town cotton broker, was married June 23d. As a mark of their appreciation her employers took advantage of the occasion to extend their congratulations, accompanied by a substantial gift. Our hearty well-wishes although similarly unaccompanied, are none the less sincere.

The arrival of the first child, a daughter, into the home of Mr. H. G. Stewart, was the occasion of many congratulations.

Sickness and hard work on the first New York bonus wire necessitated Mr. H. P. Ruffee's relinquishing that place. Mr. Roscoe Smith, the latest incumbent, is doing well.

On account of the failing health of his mother, Mr. Geo. F. Logan, who works the "North American" leased wire, journeyed all the way to North Sydney, C. B., in time to see his mother pass away. Our sincere sympathy is herewith extended.

In honor of his twenty-fifth wedding anniversary, Mr. John R. Gorsuch, foreman of the construction department, has issued invitations to numerous friends to attend its celebration.

DALLAS, TEX., WESTERN UNION.

Among recent arrivals are: P. G. Tompkins, formerly manager of the Western Union at Beaumont, Tex., and Augustus Mansnerius, formerly traffic chief at Galveston, Tex.

Elmer Cox has just returned from New York, where he attended the Presbyterian convention, being a delegate from this city.

We regret to mention the death of our friend and co-worker, Walter T. Moore, June 14. Mr. Moore, who had for a number of years worked in the Cen-

tral cable office, New York, came to Dallas last fall for the benefit of his health. His remains were shipped to the home of his mother, at Wills Point, Tex., for interment.

BOSTON, MASS.

Typewriters for sale, to rent and repaired. Remington, Smith, Densmore and all makes sold or rented on easy monthly terms to telegraphers. Send for samples, catalogues and full information to E. M. Bennett, Manager, The Typewriter Exchange, 38 Bromfield Street, Boston, Mass.

BIRMINGHAM, ALA., POSTAL.

Our popular night chief, Mr. Wm. C. Lloyd, has the sympathy of the fraternity at large in the death of his father which occurred at Waynesboro, Miss., June 18.

Mr. Frank N. Andrews is with us again as all-night-chief, vice G. G. Nordmark. Messrs. Andrews and Burger are doubling up and filling in Mr. Lloyd's place during the latter's absence.

J. Knox Thrower and W. J. Barnes, two well known operators formerly of this office, but now located in Atlanta, were recent visitors.

Mr. George J. Nealeans, receiving and delivery clerk, was married June 18th, to Miss Sidney Browning Simmons, of this city. Local employees presented them with a suitable present.

Joseph D. Smith is enjoying his annual vacation in Tennessee.

Recent arrivals: A. G. Gadmar, J. W. Bray, J. M. Flippen, and L. W. Sanders.

ST. LOUIS, MO., WESTERN UNION.

A branch office was opened June 4 on the World's Fair Grounds, with one of the bright young branch office operators, Walter Jost, who is seventeen years of age, at the helm. Young Jost is the youngest operator in this city, and has very fair ability.

Miss Lulu Jost is in charge at the Cabanne Arcade office, vice Walter Jost, transferred.

NEW YORK CITY.

"My Old Virginia Home Upon the Farm," one of the sweetest songs published; "God's Will Not Ours be Done," (McKinley's last words) strong descriptive song with martial music; "Left on the Battlefield;" "Down Where the Cotton Blossoms Grow;" "I'll be With You When the Roses Bloom Again;" "Any Old Place I Can Hang My Hat is Home Sweet Home to Me;" "Heirloom Waltzes;" Zenda Waltzes;" "Utopian Waltzes;" "Metropolitan March and Two Step;" 18 cents each. If you want any other sheet music write to me about it. I can save you money. PIANOS SOLD ONE DOLLAR PER WEEK. Address, B. L. Brannan, 195 Broadway, New York.

WESTERN UNION.

The services of about eighteen members of the

force have been dispensed with during the past two weeks, it being alleged by the men that they were suspected of being members of the new brotherhood. Some of the discharged men found employment with the Postal Company and in brokers' offices.

A vote was taken among the employees of the company a few days ago to ascertain the feeling regarding weekly or semi-monthly pay days. It was decided by a vote of about five hundred to two hundred in favor of the continuance of the weekly pay day plan.

Mr. R. W. Chapman, bookkeeper of the Western Union Telegraph Company at Chicago, Ill., is in the city changing the system of bookkeeping in New York to correspond with the one in vogue at Chicago.

Mr. Charles F. Holmes, son of Charles M. Holmes, of the President's office, who is employed in the construction department of the New York Telephone Company, was married on June 16 to Miss A. Lewis, at Brooklyn, N. Y.

Quite a number of chief operators have had their salaries raised from one to three dollars per week, and they are correspondingly happy.

Conspicuous signs have been placed on the building at the corner of Dey street and Broadway. This is the first time that the Western Union has placed advertising signs on the main building. The appearance of the signs have so far met with favorable comment.

The Western Union officials who hailed from Chicago are reminded of home these days when every one is using soft coal, and the atmosphere therefore resembles the skies of the Windy City.

Manager M. W. Hamblin is now located in his new office on the ground floor, which is conveniently located and accessible to the public. This is the first time in a quarter of a century that patrons of the company have been able to confer with the manager. Mr. Hamblin is making a good impression on the public, as well as on the employees of the company.

P. J. O'Halloran and Thomas Nolan have gone to Long Branch for the summer, and C. J. Liebrock to a summer office.

Appointments: J. J. Hornett, J. W. Moss, A. F. King, D. F. Jones, E. B. Holden, H. Simon, E. W. Palmer and J. M. Morgan. Resigned: H. S. Schaefer, M. Connolly, H. Lieber and Augustus Prag.

On account of excessive duties and absence from town during the summer of some of its members the Pension Committee has not been able to meet lately, and it is probable no more meetings will be held until September. A large amount of correspondence and data has been considered by the committee.

Mrs. Hattie Bryant of the Boston Fish wire has resumed duty, after an absence of ten days on account of illness.

Miss Elinor Ohlandt, who is now in impaired health, will spend the summer in the Adirondacks.

Thomas Martin has resigned to take a position with the Marconi Wireless Telegraph Company

on board the "Herald" light-ship off Nantucket, Mass.

On June 19, Mr. Gardner Irving was elected by the directors of the Serial Building and Loan Institution to be a member of the board, to fill the unexpired term of H. G. King, resigned.

Owing to the large number of operators employed the alphabet, single and double letters, for "sines" has been used up, and it has become necessary to give out such sines as "K2A" and "M5M," etc. The operators at the other end of the wire find it difficult to get the sines without an explanation being made.

A dozen first-class men were sent to New London, and also to Poughkeepsie, recently, to help out on the boat races at those places.

M. J. Kenna has returned from the Southern race circuits, and after spending a few weeks at his home at Concord, N. H., will go to Saratoga for the racing period.

Miss McPaull, for many years manager of the 1616 Third Avenue office, has resigned, to travel with her sister, who is in poor health. She is succeeded by Miss Coughlin.

Mr. M. H. Kerner has been called to Kansas City, Mo., as an expert witness in a lawsuit.

POSTAL.

Mrs. A. M. Grier has gone to the Adirondacks for the summer.

J. T. Needham, chief on the East and North, is away on a two-weeks' vacation in New York State and Canada.

Glen Newman, quad chief, has returned from a vacation of two weeks.

Assistant Manager F. F. Norton is in Chicago on business for the company.

L. E. Harper, of the night force, has resigned and gone West.

Albert Ward, of the clerk's department, has been appointed assistant chief check, in place of George Sayres, transferred to the city operating force.

The entire force seem very much elated at the recent acquisition of the Pennsylvania Railroad lines, and anticipate a lively time here when arrangements have been fully completed.

Arrivals: J. R. Shannon, Mrs. M. Hunt, Miss M. E. Jones, W. Orange, H. C. Shetron and Miss K. N. Weldon. Resigned: T. Hammond and Miss Emily Marmion, the latter to accept a position with a broker.

Miss M. Cleary has returned, after a two-weeks' severe illness.

George F. Fagan, of the general manager's office, has returned from his vacation.

Recent appointments to split tricks: W. J. Evans, L. M. Harding, L. L. Howell, S. T. McWha, R. H. Jackson, L. Corper, C. W. Soules, W. H. Curtis, A. P. Dewar, W. H. Kelly, P. McEvoy, W. E. Cooke, R. F. Flanagan, F. E. Ferguson, T. J. Heffernan, J. J. Hope, C. Hinman, H. Lieber, J. E. Welch and R. Weltz.

Arthur Purcell, about twenty years of age, a brother of P. O. Purcell, of this office, was accidentally killed on May 28, by falling from the

roof of his residence. Young Purcell was an operator, and had been employed by both the Western Union and Postal companies, afterwards finding employment as agent and operator with the Manhattan Elevated Railway Company latterly resigning to accept a position with the Delaware, Lackawanna & Western Railroad near his home, at Scranton, Pa. He was a member of the Ninth Regiment of New York.

If you are troubled with operators paralysis, writers cramp or lame arm, write to F. J. McDannel, Owosso, Mich., for a bottle of his Telegraphers Liniment. He guarantees it. Write for particulars.

PHONETON, O., NOTES.

The personnel of the Long Distance Telephone station at this point is as follows: Philip J. Faulkner, manager; W. W. Watt, wire chief; C. L. Faries, J. F. Moran and C. W. Bell, assistant wire chiefs; E. D. Kramer, chief operator; Anderson Hutchins, night chief operator; Jennie Black, Josie Beck, Bertha C. Swallow, Blanche Freet, Ethel Westerman, Laura Brooker and Bertha Deam, telephone operators; Anna Wiley, combination Morse and telephone operator; Ollie Wolf, chief supervisor; Matilda B. Reaver, supervisor; C. T. McCarthy, Harley Sharritt and J. W. O'Hara, Morse operators; Edgar W. Fouts, inspector; W. C. Sampson and G. T. Parsons, linemen.

Magnetic Club Outing.

The summer outing of the Magnetic Club of New York, took place on June 24, at the Cove Hotel, Staten Island, and it proved to be a delightful occasion to those who participated. The tug Western Union made two trips to the grounds, carrying members and friends, the first to arrive being those interested in the base-ball game between nines composed of Missouri Pacific Railroad employees of 195 Broadway, and the Postal Telegraph-Cable Company employees. The result of the game was 7 to 1, in favor of the latter club. Three games have been played by these clubs so far this season, the Postal winning two, and the Missouri Pacific one. In the athletic sports which followed, R. J. Murphy won the 100-yard dash, with W. C. Burton second, and C. Jacobson third. The 200-yard dash was won by James J. Tully first, with E. J. Leahy second.

The prize for the ball throwing contest was won by F. Scullen, T. Mertens, second, and C. Anderson, third.

After the athletic games were over and a photograph had been taken of the assemblage by Colonel de Freece, of the Commercial Advertiser, New York, the members and guests gathered at the banquet table, where they were greeted by the president, Mr. Francis W. Jones, with appropriate remarks. He extended to Mr. D. Skelton the thanks of the club for the beautiful floral table decorations. He then presented to the manager of the winning Postal baseball team, Mr. Robert Vollbracht, Jr., ten

silver dollars, donated by himself, for the baseball club treasury. After awarding to the winners of the athletic games the respective prizes, a varied and entertaining program of music, recitations and story telling, lasting about an hour, was carried out.

After coffee had been served a number of valuable prizes were distributed among those present by means of drawing tickets from a hat, each club member in good standing being represented by a number. The prizes and those who won them, were: A pocket electric searchlight, donated by J. H. Bunnell and Company, won by R. J. Murphy; belt, donated by T. L. Cuyler, Jr., won by W. C. Burton; merchaum pipe, donated by C. P. Bruch, won by M. Tully; silver cigar cutter, donated by F. M. Ferrin, won by J. W. Connelly; box of tobacco, donated by Schulte and Company, won by C. Jacobson; fountain pen, donated by M. H. Kerner, won by F. Scullen; order for a cap, donated by Young Bros., won by B. T. Waters; two telegraph story-books donated by J. B. Taltavall, won by C. Anderson. C. F. Pearce won his firm's donation, a medical battery, but returned the same in order that it might be drawn for again. A gold fob-chain, donated by James Kempster, was won by J. J. Garrity; an electric cane, donated by William Marshall, won by Frank C. Mason; a silk umbrella, donated by Foote, Pierson and Company, won by Fred. Pearce; an electric clock, donated by the M. and I. Electric Company, won by M. R. Cockey; an elaborate inkstand and tray, donated by the Bunnell Telegraph and Electric Company, won by J. F. McGuire; gold cuff-buttons, donated by F. M. Ferrin, of Boston, won by F. Tenbroeck; a medical battery, donated by Fred. Pearce, won by W. C. Burton; box of note paper, donated by E. C. Cockey, won by T. G. Singleton; silk umbrella, donated by W. H. Baker, won by J. B. Taltavall.

The president, Francis W. Jones, was declared to be the most popular man in the club and was accordingly awarded an ornamental silver match-box, donated by Col. A. B. de Freece.

One of the founders of the club and the author of its motto, "Are You Happy?" Mr. E. C. Cockey, was present, and was in his usual happy mood, hail fellow and joking with all whom he met, and received a hearty welcome, as did also Mr. W. H. Baker, one of the club's former presidents, who arrived in time to participate in the dinner.

In bringing the festivities to a close, President Jones read the following appropriate lines:

Make new friends, but keep the old,
Those are silver, these are gold.
New made friends, like new wine,
Age will mellow and refine.
Friendships that have stood the test,
Time and change are surely best.
Brow may wrinkle, hair turn gray,
Friendship never owns decay;
For 'mid old friends kind and true
We once more our youth renew.
But, alas! old friends must die—
New friends must their place supply;
Then cherish friendship in your breast,
New is good, but old is best.

Make new friends, but keep the old,
Those are silver, these are gold.

The guests of the club were: J. C. Barclay, C. H. Bristol, G. F. Swortfeger, Frank J. Scherrer, and C. H. Murphy.

The baseball teams were made up as follows:

Missouri Pacific: Fitzgibbon, Waters, Scullon, Dierks, O'Ryan, Leahy, Talbot, Vollner, Tully; Postal: Cahill, Fleming, Tenny, Anderson, Davids, Vollbracht, Loughlin, Healey, Mertens. Batteries, Missouri Pacific: Tully, Scullen, and Waters; Postal: Mertens and Loughlin.

Among those present were: Chas. Ruffer, Isaac Smith, T. E. Fleming, A. E. Price, M. J. O'Leary, Francis W. Jones, C. F. Pearce, W. J. Mundell, John Brant, M. J. Kenna, R. Vollbracht, Jr., J. W. Connolly, James Tully, B. C. Waters, Frank Scullen, Joseph O'Ryan, F. Whitfield, A. M. Guest, W. W. Briggs, J. F. Ahearn, F. E. McKiernan, G. F. Fagan, C. E. Diehl, of Harrisburg, Pa.; W. Cahill, A. P. Tobey, D. Loughlin, C. Anderson, W. B. Davids, W. J. Tenny, T. Healy, Col. A. B. de Freece, J. P. McParlan, J. P. Clolery, J. J. Ghegan, H. C. Duvall, C. Jacobson, A. Duffy, W. J. Carroll, J. Spellman, J. F. Cleverdon, Edward C. Cockey, F. C. Mason, F. Pearce, T. J. Smith, M. R. Cockey, R. E. Fagan, C. L. Chase, Wm. Finn, E. S. Butterfield, R. J. Murphy, Geo. Roehm, T. A. Brooks, Wm. Marshall, H. S. Young, Wm. T. Larkin, J. H. Robinson, J. F. McGuire, W. C. Burton, W. H. Tenbroeck, D. W. McAneeny, D. J. Gallagher, Frank Nelson, A. P. Eckert, S. Rice, T. G. Singleton, J. R. Beard, A. Kline, M. W. Rayens, J. B. Taltavall, G. Olmstead, B. M. Downs, E. A. Coney, R. Bristol, E. J. Lahey, J. English, J. B. Korn-dorfer, J. Dunn, D. Skelton, J. C. Barclay, C. H. Bristol, F. J. Scherrer, W. H. Baker.

General Mention.

The Western Union Telegraph Company has raised the salaries of some of its employees at Washington, Baltimore, and Philadelphia.

Mr. James J. Collins, of the Postal Telegraph-Cable Company, Portland, Ore., was married to Miss Marcella Fleming, on June 18, and his numerous friends extended congratulations.

Mr. Thomas L. Elder, of Pittsburg, Pa., who was the first operator sent by the Western Union to the Milburn House, Buffalo, N. Y., when President McKinley was shot, has accepted a \$2,500 per year position as private secretary to Hon. Alfred S. Moore, of Beaver, Pa., who has recently been appointed United States Judge of District No. 2, at Nome, Alaska.

Mr. I. Sitzenstatter, lately from the West, has been added to the telegraph department of the Standard Oil Company, 26 Broadway, New York City, in place of Mr. Fredk. Gottschalk, who has gone to the Brooklyn office for the same company. He is a valuable acquisition to the talented force which Mr. Sid. Flagler has under his supervision. Mr. Daniel Brown, of 195 Broadway, is relieving the boys at No. 26 Broadway for their vacations, each of whom has two weeks' leave of absence.

Personal Mention.

Col. A. B. Chandler, chairman of the Board of Directors of the Postal Telegraph-Cable Company, New York, has gone to his farm at Randolph, Vt., for the summer.

Colonel Charles E. Diehl is now in charge of the general manager's office of The Associated Press in New York during the absence of General Manager Stone in Europe.

The creation of a new position in the Scripps-McRae League, that of editor-in-chief of its list of newspapers, has resulted in Mr. Robert F. Paine, editor of the Cleveland Press, in being called to the place.

Mr. Charles A. Tinker, former general superintendent of the Western Union Telegraph Company, New York, is enjoying his rural retirement at St. Albans, Vt., where he expects to remain for some time to come.

After a practice of thirty-five years at the bar in Chicago, Ill., Mr. W. R. Plum, the well-known old-time and United States Military telegrapher, has retired, and will hereafter devote his leisure moments to literary work. Mr. Plum is the author of a two-volume work, entitled "The Military Telegrapher in the Civil War," which is a history of the part played by the telegrapher during the Rebellion from 1861 to 1866.

Mr. Arthur Cox, for many years treasurer and superintendent of supplies of the Great North Western Telegraph Company, Toronto, Ont., has decided to retire from his dual position early in the coming autumn. Mr. Cox, who is an A. R. C. A., will spend the winter pursuing his art studies in England. All who had the pleasure of Mr. Cox's acquaintance in a business or a social way will regret that he contemplates removing from Canada.

Directory of Telegraph Organizations.

International Association of Municipal Electricians. Next meeting, Richmond, Va., Oct. 7, 8 and 9.

Old Time Telegraphers and Historical and United States Military Telegraph Corps Association. Next meeting, Salt Lake City, Utah, September 10, 11 and 12.

T. M. B. Association. Assessment No. 395 has been levied by the Telegraphers' Mutual Benefit Association, to meet the claims arising from the deaths of Wm. H. Metz, at Philadelphia, Pa.; George A. Moke, at St. Louis, Mo.; Robert J. Fruin, at St. Louis, Mo.; John J. Cleary, at Brooklyn, N. Y., and David McDonald, at San Jacinto, Cal.

Wireless Telegraphy.

John D. Spreckles, the San Francisco sugar magnate, contemplates the establishment of a wireless telegraph system between the Pacific Coast and the Hawaiian Islands.

Orders have been given by the Navy Department to fit out all ships of the North Atlantic station now undergoing repairs, with spars for receiving wireless telegraph messages.

The largest induction coil, which produces the longest spark for service in wireless telegraphy, is said to be the one which was recently made for flashing messages between the coast of Japan and Corea. It can produce, in fact, a miniature streak of lightning forty-five inches in length, capable of killing any number of persons who might get in its way, and when in operation sends out something like thunder rolls. The entire apparatus weighs about 2,000 pounds.

"Small Accumulators" is the title of an illustrated volume of eighty-one pages, by Percival Marshall, M. E. The book covers the subject of storage batteries, as indicated by its name, as fully as is possible, and it will be found a practical and trustworthy guide of the matter treated, readily understood by non-technical readers. The price of the book is fifty cents, an amount which covers the prepayment of express charges. Address J. B. Taltavall, Telegraph Age, 253 Broadway, New York.

[Advertising will be accepted to appear in this column at the rate of three cents a word.]

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Please mention The Telegraph Age in communicating with advertisers.

Any electrical or telegraph book published for sale by Telegraph Age, 253 Broadway, New York.

The Modern Service of Commercial and Railway Telegraphy (8th edition, revised and enlarged), by J. P. Abernethy. The theory and practice, including railway station and express service. Arranged in questions and answers. 425 pages, 46 illustrations. Price \$2.00, expressage prepaid. Address John B. Taltavall, The Telegraph Age, 253 Broadway, New York.



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H. A. GAGNON,
Station Agent, Reed's Ferry, N. H.

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For over ten years we have been training people for better positions and salaries in every line of industry. We can do the same for you. We can train you for any position in the electrical field. Mark **X** in the coupon before the position for which you wish to be trained, fill in the blanks and send to us. By return mail we will explain our plan.

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Please explain how I can qualify for the position marked **X** below.

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- Electrical Engineer
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- Manager of Electric Railway
- Manager of Electric Light Plant
- Superintendent of Electric Plant
- Fire Underwriter's Inspector
- Interior Wireman
- Foreman of Dynamo Room
- Foreman of Electrical Repair Shop
- Dynamo Tender
- Electrical Lineman
- Motorman

Occupation _____

Name _____

No. _____ St.

Town _____ State _____

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It WORKS through all kinds of trouble and weather.
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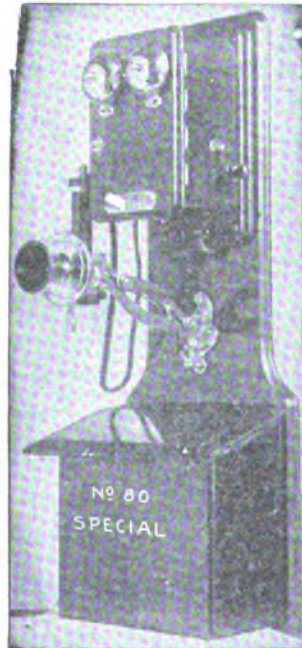
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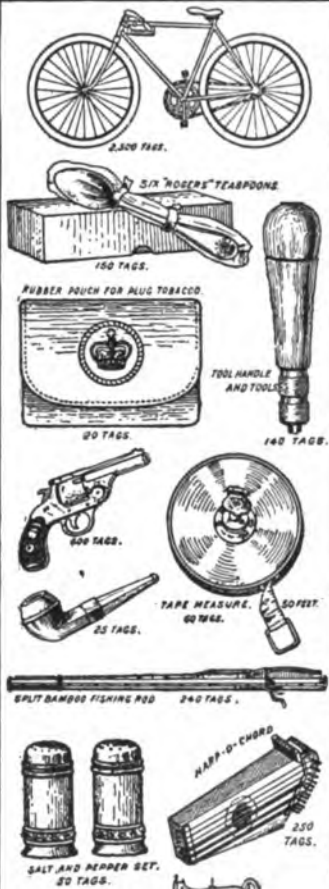
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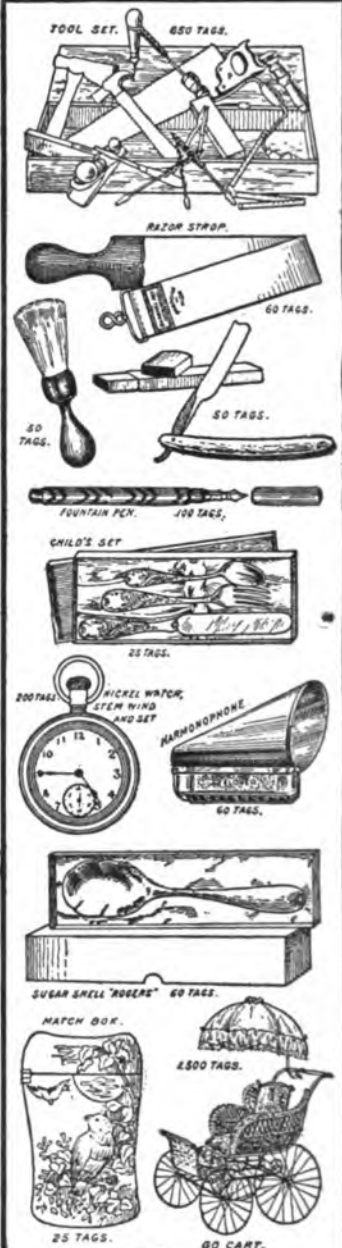
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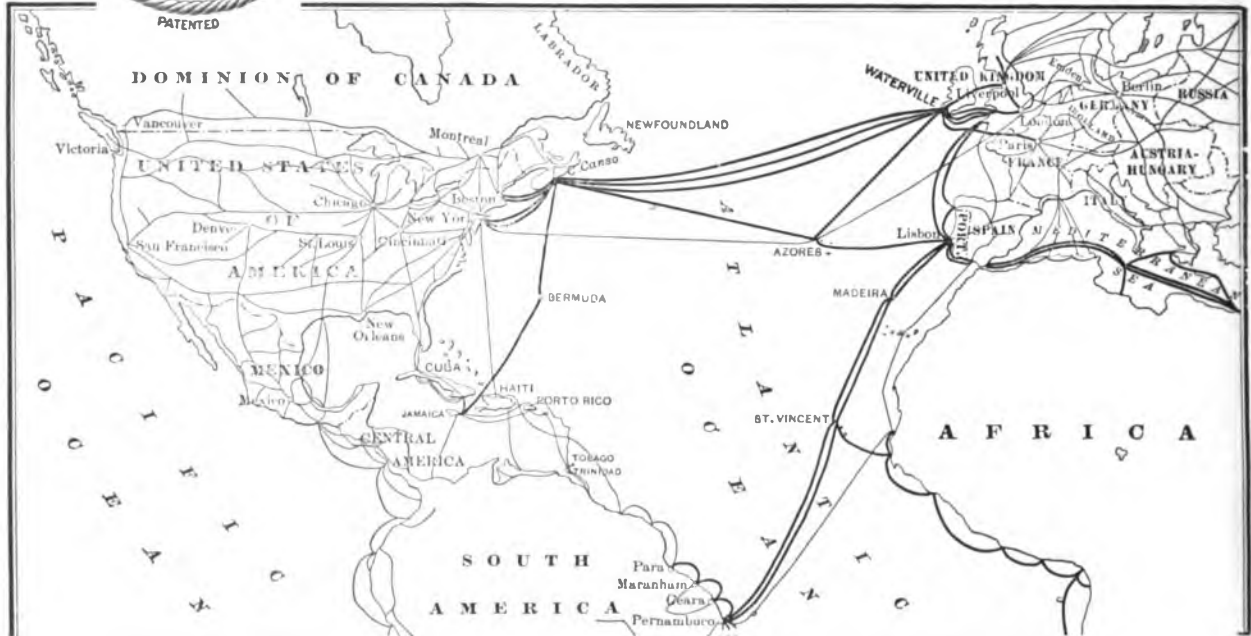
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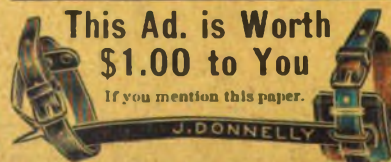
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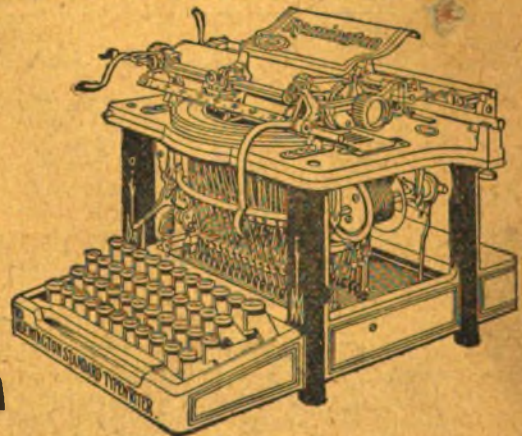
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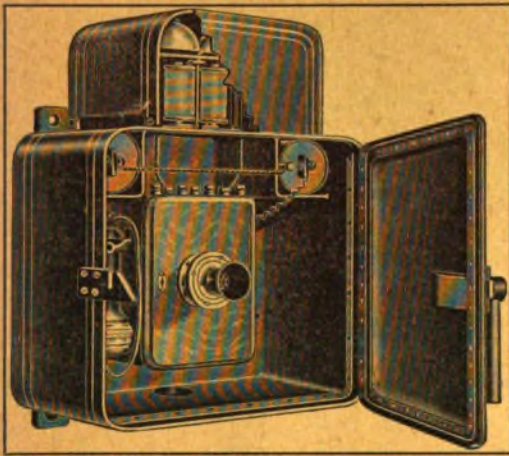
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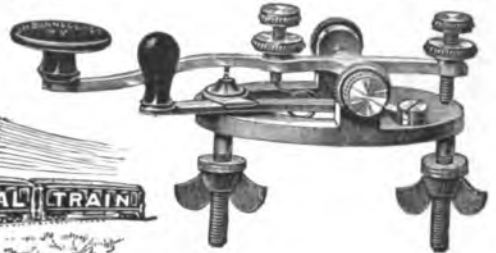
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THE TELEGRAPH AGE

No. 14.

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Vol. XIX.

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SOME POINTS ON ELECTRICITY.

Barclay's Direct Repeating Relay for Multiplex Circuits.

BY WILLIS H. JONES.

Every operator is familiar with the fact that the distinctness of the signals received on a sounder varies, to a great extent, with the speed of the sender, and that an alteration in the adjustment of the sounder will, in a majority of cases, alone restore such signals to their original value. This statement applies particularly to polarized relays, and demonstrates conclusively that that instrument is capable of doing much better work than is ordinarily obtained by the present standard arrangement.

With a view of eliminating, as far as possible, all losses due to second-hand delivery of signals, Mr. J. C. Barclay, electrical engineer of the Western Union Telegraph Company, has devised a method by which the respective armature levers of two polarized relays at a repeating station are made to deliver the multiplex main battery current directly to the circuits via an extra set of contact points, without the aid of other apparatus. Ordinarily the relay levers each operate a pole-changer controlled by a local battery, and the accuracy with which the current reaches the line necessarily depends upon a proper and permanent adjustment of that instrument. Mr. Bar-

clay's device is called the "Direct Repeating Relay," a theoretical illustration and connections of which is herewith shown.

His method has been in practical operation for some time on the New York and San Francisco overland and other long circuits, and the improvement to the service derived thereby has been so marked that it has been determined to introduce the arrangement at all important repeating stations throughout the country.

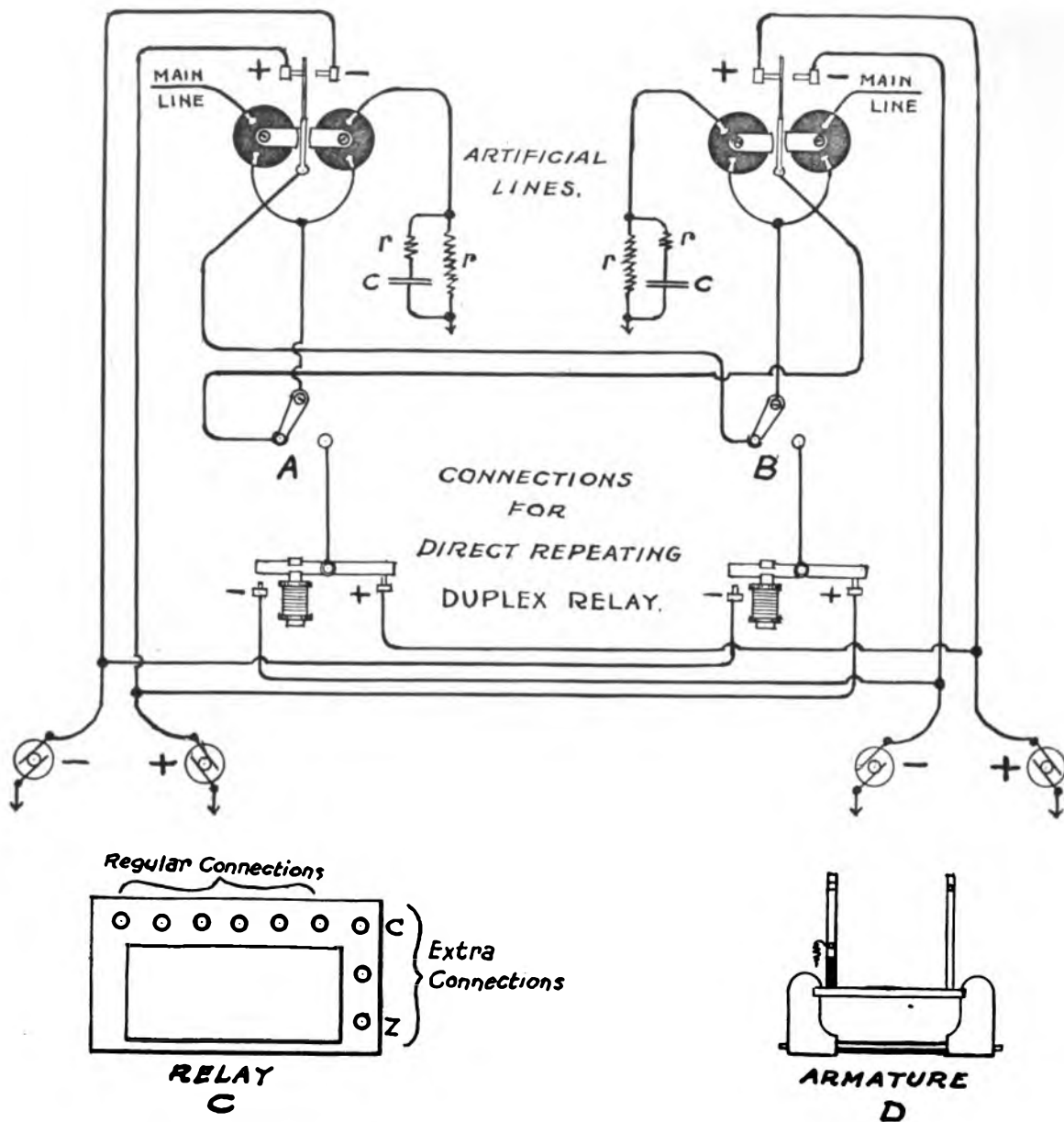
It will be seen by referring to the theoretical illustration that when the three-point switches A and B are turned to the left, the two standard pole-changers with their main battery connections are thrown out of operation. Simultaneously with the turning of the switch lever, however, the batteries disconnected via that route are shifted to an extra set of contact points belonging to the relay, where one prong of a double-lever armature acts as a pole-changer and carries the current direct to the main and artificial line coils of the relays in the usual manner.

For the purpose of clearness the diagram shows but one set of contact points and lever—those for the main battery connections. The complete Barclay relay, however, possesses two sets of each, as shown in the small cut D, one of which is employed, as stated, to operate the local circuit when the levers of the three-point switches are turned to the right. The relay is of the small Western Union standard pattern, and the twin lever armature is simply two bars fastened rigidly to a common yoke (see figure D), but, of course, thoroughly insulated from other parts of the apparatus.

When the attendant at a repeating station desires to balance, or speak to the distant office, he first turns the switch levers A and B to the right, which operation restores all the connections of the apparatus to our present standard arrangement.

This move towards the utilization of latent power is undoubtedly in the right direction, and is but one of the many improvements contemplated. Mr. Barclay has been, for some time, making a special study of the weak spots in the electrical field of the telegraph service, and seems to be the possessor of many original and valuable ideas. Judging by the obvious merits of a number of contemplated improvements in apparatus and methods which he courteously disclosed to the writer, and which will be described in this journal from time to time, he is to be congratulated upon possessing the faculty of appreciating

the truth that no factor of a combination is too Messenger Company, of Boston, Mass., held July



small to be ignored—a point too often belittled.

Business Notice.

The Lackawanna Railroad has just established a Resort Bureau which will give complete information how and where to spend the summer along its line. Booklets and information regarding resorts at Delaware Water Gap, Stroudsburg, Mount Pocono, Lake Hopatcong, Richfield Springs, and many other attractive resorts will be sent on request accompanied by two cents in stamps to this Resort Bureau, 429 Broadway, corner of Howard Street, New York City.

Annual Meetings.

At the annual meeting of the Mutual District

8, the following officers were elected: Robert C. Clowry, President; Belvidere Brooks, of New York, vice-president; D. J. Hern, general manager, and Fred Brown, clerk and treasurer.

The annual meeting of the American Union Telegraph Company of New Jersey, was held at 76 Montgomery street, Jersey City, on July 9.

The following named officers were elected for the current year: R. C. Clowry, president; T. F. Clark, vice-president; A. R. Brewer, secretary and treasurer. Directors: R. C. Clowry, T. F. Clark, A. R. Brewer, B. Brooks and J. B. Bertholf.

The angels may have wider spheres of action, may have nobler forms of duty; but right with them and with us is one and the same thing.

Personal Mention.

In the coronation list of honors Lord Kelvin is gazetted for the new Order of Merit and is also made a member of the Privy Council. Professor Lodge is knighted, and is now to be addressed as Sir Oliver Lodge.

Mr. Thomas A. Edison contributes an article to the July issue of the North American Review, entitled "The Storage Battery and the Motor Car," in which further information is given as to the new type of storage battery upon which he is working.

Mr. B. Brooks, general superintendent of the Western Union Telegraph Company, and Frank J. Scherrer, of the president's office, New York, received their third degree in masonry in one of the New York lodges a few nights since. Many telegraphic masonic friends were present to witness the "raising" of these gentlemen.

Mr. Geo. F. Porter, of New York, has returned from Alaskan waters, having succeeded in getting the government cable there into successful operation far more quickly than was deemed possible. It had been supposed that ice had something to do with the rupture of the cable, but it is now said to seem more than likely that the cable was cut in order to free from it the anchor of an entangled vessel.

Mr. C. H. Reynolds, chairman of the Pacific Cable Board, London, Eng., and Mr. James Kent, general manager of telegraphs of the Canadian Pacific Telegraph Company, Montreal, Que., have returned from their extended trip to the Pacific Coast, in the interest of the all British Pacific cable. Mr. Reynolds also inspected the Commercial Company's cable station at Canso, N. S. He sailed for England on July 5.

Col. Allan C. Bakewell, second vice-president and general manager of the Sprague Electric Company, was recently elected Department Commander at the New York State Encampment of the G. A. R., held at Saratoga Springs. There was a strong opposition ticket in the field, but Col. Bakewell, in recognition of his services in both the State and National work of the organization, was elected by a handsome majority.

Resignations and Appointments.

Mr. Sidney B. Curtis, cashier of the Western Union Telegraph Company, Hartford, Conn., for the past twenty years, has resigned.

Mr. H. E. Rawson has been appointed chief operator of the Western Union Telegraph Company at Columbus, O., vice L. M. Owings, who resigned on account of continued ill health.

Mr. E. B. Saylor, formerly chief operator of the Western Union Telegraph Company, Philadelphia, Pa., has been appointed to a position in the office of General Superintendent Brooks, New York, and he will have charge of the rights of way department.

Mr. J. W. Crews, superintendent of the Bell Telephone Company, at Savannah, Ga., an old-time telegrapher, has been promoted to the position of

assistant general manager, with headquarters at Atlanta. The general manager of the company, Mr. W. T. Gentry, is also an old-time telegrapher.

Mr. S. G. Bentley, formerly manager of the Postal Telegraph-Cable Company, Lexington, Ky., has resigned to accept the position of superintendent of telegraph of the Santa Fé Central Railway Company, with headquarters at Santa Fé, N. M.

Mr. Gustave Schultz, for the past thirty years cashier of the Western Union Telegraph Company at Galveston, Tex., has been appointed manager of the same interests at that point, vice Mr. J. J. Smith, recently promoted to the managership of the Chicago, Ill. office.

Mr. Clinton P. Russell, having resigned as assistant treasurer, secretary and general manager of the Postal Telegraph and Cable Company of Texas, Shirley M. English has been appointed assistant treasurer and general manager, and W. H. Ordway secretary and auditor, headquarters at Dallas.

Mr. J. F. Reade, who was recently appointed a Western Union manager at Colorado Springs, Col., vice J. W. Reed, promoted, was formerly the chief operator in the same office, and lately manager at Cripple Creek, Colo. Mr. Reade is a former Canadian telegrapher, has been in Colorado a number of years and is popular with the public and fraternity. C. H. Briggs, of Colorado Springs, relieves Mr. Reade as manager at Cripple Creek.

The resignation of Mr. Richard J. Bloxham, for many years local manager of the Western Union Telegraph Company, Baltimore, says the "Sun," of that city, "will cause genuine regret among the business people of Baltimore. Mr. Bloxham rose to the responsible position which he attained by his own merits. He was in intimate relations with the press and general business of the city, and he earned the confidence and respect of all who had business relations with him. He went into the telegraph business during the Civil War, when he was a boy, and has worked diligently at it from that time until now. Here in Baltimore he began as an operator, was promoted successively to assistant to the chief operator, chief operator, and, 17 years ago, to the place of manager, which he now resigns. It must be gratifying to Mr. Bloxham, in retiring from this place, to carry with him the good wishes and respect of the employes of the office, as well as of the public generally." Mr. J. M. Creamer, of Knoxville, Tenn., succeeds Mr. Bloxham as manager.

"Small Accumulators" is the title of an illustrated volume of eighty-one pages, by Percival Marshall, M. E. The book covers the subject of storage batteries, as indicated by its name, as fully as is possible, and it will be found a practical and trustworthy guide of the matter treated, readily understood by non-technical readers. The price of the book is fifty cents, an amount which covers the prepayment of express charges. Address J. B. Taltavall, Telegraph Age, 253 Broadway, New York.

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Obituary.

W. J. Wallace, aged 42 years, a well-known operator at Charleston, S. C., died at Williamston, that State, on June 29.

Allen H. Jones, a native of Ohio, aged 35 years, a train despatcher at Denison, Tex., died of heart disease on July 1. At one time he was division superintendent of the Clover Leaf Railroad at Frankford, Ind.

Albert C. White, aged 61 years, an old-time telegrapher, superintendent and general manager of Providence Telephone Company, died at Providence, R. I., on June 27. He was chief operator of the Western Union Telegraph Company, at Providence until 1881, when he left the service to enter the telephone field.

E. F. Walker, aged fifty-two, for fifteen years connected with the Western Union Telegraph Company at Memphis, Tenn., and for many years past manager of the Cotton Exchange office at that place, died of consumption on June 24, after a lingering illness. Before going to Memphis, Mr. Walker was manager of the Pensacola, Fla., office. He leaves a wife and four children.

New York Visitors.

Mr. J. W. Reed, manager Western Union Telegraph Company, Philadelphia, Pa.

Mr. A. L. Edgecomb, superintendent Postal Telegraph-Cable Company, Portland, Me.

Mr. J. W. Larish, electrician Western Union Telegraph Company, Boston, Mass.

Mr. E. B. Pillsbury, superintendent Postal Telegraph-Cable Company, Boston, Mass.

Mr. T. R. McCamman, chief operator Western Union Telegraph Company, Philadelphia, Pa.

Mr. S. A. D. Forristall, superintendent of telegraph of the Boston and Maine Railroad, Boston, Mass.

Mr. W. R. Holligan, formerly manager of the operating department of the Western Union Telegraph Company, Chicago, Ill., and now in the brokerage business in that city.

General Mention.

Mr. Charles Edgar Branin, of The Associated Press, Portland, Oregon, was married June 11 to Miss Lola Edwards.

Mr. Frank V. Moffitt, manager of the Western Union Telegraph Company, Milwaukee, Wis., was married on June 28, at Chicago, Ill., to Miss Jeanette M. Hall, of Sioux City, Iowa.

Manager E. J. McCabe, of the Postal Telegraph-Cable Company, Paterson, N. J., has opened his new office at 117 Ellison street, and in a few days expects to be back in better working shape than before the fire.

Mr. J. J. Welch, the new chief operator of the

Western Union Telegraph Company, at Boston, Mass., who hails from Chicago, fills the place admirably and has the esteem of all. Mr. Thomas Finan, the new night chief operator who relieved Mr. C. L. Pond, is a well known and popular Bostonian.

The Telegraph in Alaska.

Gen. A. W. Greely, chief signal officer United States Army, who is now in Alaska on a tour of inspection, makes the following statement concerning the progress of the telegraph in that locality: "We have spent about half a million dollars, and have finished a cable from Skagway to Juneau, a line eastward from St. Michael's along the Yukon valley to Fort Gibbon, a line partly finished from Valdes northward through the Copper river country, and we did have a line connecting Cape Nome with St. Michael's. The last line, however, is now broken. The cable at Skagway is joined with a Canadian telegraph system, but our Far Western lines in Alaska are not yet connected with the Juneau cable. I am going to test the wireless system at two points in the territory. I have let a contract to a company using the Fessenden or American system for putting in a wireless plant to join Nome with St. Michael's, a distance of 108 miles, and I have let to the American Marconi company the contract for wireless communication a distance of 164 miles along the Yukon valley in the interior of the territory. This break can be bridged by the wireless until we are able to complete a line through from St. Michael's along the Yukon river. Both the wireless systems are to be finished by October 1. The one between Nome and St. Michael's will take the place of a regular wire system which got out of order recently. I then decided to try a wireless plant instead of rebuilding the old line.

"I expect that we shall be able to give the public telegraphic communication with Valdes and the Copper river country some time this fall. But the line through from Nome to St. Michael's will hardly be finished before next year."

Directory of Telegraph Organizations.

International Association of Municipal Electricians. Next meeting, Richmond, Va., Oct. 7, 8 and 9.

Old Time Telegraphers and Historical and United States Military Telegraph Corps Association. Next meeting, Salt Lake City, Utah, September 10, 11 and 12.

Isaac M. Warner, Union City, Mich., has been granted a patent, No. 702,893, for a fence post or telegraph pole.

Those desiring electrical or telegraph books will consult their own interest by securing our book catalogue. We make it a point to fill all orders the same day they are received. Address TELEGRAPH AGE, 253 Broadway, New York.

Telephone in Railway Service.*

I thank you for the honor conferred. I appreciate it highly, from the fact that I am not addressing an audience composed of gentlemen who pursue the ordinary business walks of life. I know that I am talking to some of the brightest men in the country, men who have devoted years to the pursuit and development of their chosen calling, and it is not my intention to address you technically—yet it is the technical side of the telephone question in its relation to telegraphy that has most interested me in your discussions here. I have remarked with pleasure—and must refer to it as a feature that emphasizes the privilege you have accorded me in permitting me to address you—that you have manifested such an interest in the telephone side of your work. Each and every member of this association has shown a desire to investigate this fruitful subject of the telephone, and its relation to telegraphy, and has offered his contribution to your discussions. I have attended a great many telephone conventions, at no one of which I have seen exhibited a greater interest than that which has developed during your convention covering the past three days. This simply demonstrates the fact that the telephone has come into railway service to stay, and is going to remain as a permanent feature in your work, and will be developed along broader lines more and more, as its value in your service becomes more prominent. It is not fanciful to predict even wireless telephony and its application to your necessities. You are all familiar with many of the experiments which have been made, and know what has been accomplished with regard to telephoning from moving trains, and many other points connected with the telephone in its relation to telegraphy.

Very few, if any, of you know that to the telegraph service of this country belongs the credit—if I may so express it—for the first transmission of the human voice over a Western Union telegraph line, back in 1878 or thereabouts, and at a time before there was any idea of the telephone service as it now exists. At about that time the Chicago, Milwaukee & St. Paul Railroad had extended one of its branches to Plattville, Wis. H. H. Beebe was an operator there; and a gentleman, whose name I believe was Robbins, was located at another point along that line—possibly at Beloit, Wis. Beebe was an inventive genius, and had read something of experiments made by Bell, Gray, and others, in transmitting the voice over a wire. There was very little done with the telephone commercially at that time. It was practically considered by telegraph men—who were perhaps the best informed on electrical matters of that character—as a scientific toy. Beebe, however, was a mechanical genius, and he immediately applied this talent to the construction of an instrument that would talk. This instrument he first used on a short Morse circuit, connecting his 'phone with the depot.

*Remarks made by Mr. J. J. Nate, of Chicago, before the Convention of the Railway Telegraph Superintendents, held at Chicago, June 18, 19, 20, 1902.

I have seen the transmitter Beebe used, and it is practically constructed along the lines of the Riese transmitter, an open and closed proposition. A little later Beebe one day connected this instrument in on the main line to see how it would work. Calling Robbins with a key, he hummed into this transmitter "Yankee Doodle," and the familiar strains vibrated the relay in unison at Robbins' station, and Robbins sent back over the wire the significant expression—"What in h—I have you got on the line?"

This same transmitter was afterwards equipped with an adjusting spring, and later, in conjunction with a pair of crudely constructed telephones, was worked on a line between Plattville and Lancaster, over which President Grant carried on what was probably his first telephonic conversation. This happened on the occasion of his return from his triumphant trip abroad. These incidents are matters of history. I think this was without question the first record of the transmission of the human voice over a telegraph line, in which a transmitter was used. It is true that previous to this time Professor Elisha Gray had worked successfully his musical telephones on lines between Chicago and Milwaukee, but these were not actuated by the human voice, and the magneto receiver was not then perfected.

As to the liability of trouble arising in telephone circuits, these are not really any more probable or marked than is the case on telegraph lines. When we say that a telephone line frequently gets into trouble, we must also admit the same with regard to telegraph lines. When we discuss the probability of having simply one pair of telephone lines going down, and of that circuit being our sole dependence, we must remember that in telegraph service the condition is similar, except where the system has developed from one wire to a large number of wires. There is in use to-day on many roads a multitude of wires; and when the telephone becomes a larger factor in railroad service, an equal number of wires, if necessary, will be provided, and the facilities for telephoning vastly extended and enlarged. There is no valid reason why the telephone system may not be made as efficient in railroad service as the telegraph has become.

As to the working of a telephone line in connection with a quad system, I understand it has not proven a success so far. Many engineers claim that it never will, but the combination has been successfully operated over Morse circuits for many years. While I do not make this statement from personal knowledge, I remember that when the long-distance telephone lines were constructed by the Bell Company between Boston and New York, it was stated that these lines were leased for telegraphic purposes, at an annual rental of about ten per cent. on the cost of constructing the lines. These wires were used at the same time for telephones, and they have been simultaneously operated, so far as we know, ever since. I understand that between New York and Chicago nearly every circuit is leased as a telegraph circuit in addition to the work of telephoning going on all the time. The solution of the telephone problem is simply to string more wires as you find

the volume of business over these lines growing larger.

As stated, there is a further probability of wireless telephony becoming a success. At St. Paul or Minneapolis, recently, experiments were made with wireless telephoning across the river, which were successful. Why not the same for moving trains, with wires strung along your pole lines? These are matters of moment, which have yet to be fully developed, and no doubt will be in time.

Now, as to the value of the telephone in railway service, I am indebted to Mr. Annett for some data on train dispatching by telephone. This matter was incorporated by me in an article published about a year ago, covering the work performed in the elevation and construction of the Illinois Central St. Charles Air Line across the many tracks on 16th street, Chicago. I do not know how many of you may have read that report, and I am sorry I have no copy with me. However, there were thousands of cars and hundreds of engines handled over that line, back and forth, crossing over all of the intersecting lines, and all were successfully dispatched. There were, I understand, no accidents, and copies of reports were taken as the trains were dispatched from one station to another. These reports were accurate in every instance. This is a most marvelous record. The work was performed under conditions where probably the telegraph would not have as efficiently served the purpose as the telephone. This opens up the question of how much greater a factor the telephone may become when used in this way.

Some years ago it was my misfortune to be present when the wreck at Chatsworth, Ill., was being cleared up. The train pulled out of Chatsworth about midnight, and was ditched fifteen or twenty minutes later about three miles further on. One of the train crew was obliged to walk back to Chatsworth for the purpose of obtaining assistance. Doctors were called from there at different points along the line from the town. Those who arrived at the scene of the accident somewhat later found the poor sufferers, men, women, and children, moaning in their agony, and it was some time before they could be extricated. If there had been a telephonic means of communication between that train and Chatsworth or Peoria, available at that time, it would have saved many precious minutes, for half an hour means a lifetime to a human being in suffering.

You are all familiar with the necessity of constant communication in railroad yards, and here the telephone is most efficient, securing many details of information—such as car numbers, make-up of trains, report of crews, switching instructions, location of lost cars, broken rails, and many other uses. Let us suppose that a train is laid out between blocks, and that the mechanism has become inoperative, the telephone affords a means of communication direct with the controlling station. Not long ago the Chicago papers reported the loss of a train in the snow, and failure to locate it for two long weeks, during all of which time the passengers must have suffered much inconvenience, perhaps sickness

and business losses. If there had been a telephone equipment on that train it would have been located even before it could have been said to have been lost. Think of the discomfort on a train thus laid up, if even for twenty-four hours, on one of our Western roads, with stations many miles apart. With a pair of wires worked simultaneously over the pole line, or a straight bridged proposition, it is only necessary to provide the train with telephones and suitable connecting apparatus for attaching to these wires, and one is able to call up any station on the line. These appliances could also be used by section men, construction trains, and in fact under all conditions where necessary to save time. Conductors could report from intermediate points relative to time, accidents or delays. A means of connection could be in the nature of long poles with terminals at each end, arranged to clamp over the wires, with connections for attachment to the telephone sets at the lower end, or the main wires could be tapped and brought down near the ground on the telegraph poles, at intervals of a few miles apart. The proper connections could be contained within an iron box. Thus, a means of communication between trains, section gangs, in fact between passengers on board a train, could be established. Business men might even attend to important matters; railroad officials could be informed of the true state of affairs, and information secured from outside points.

As to train orders: There is little liability of errors when you remember that every order must be repeated back and copied in duplicate. If it is stated that errors do not occur in telegraph practice, it may be considered as an amiable prevarication, for that errors do occur is known to all of us.

The patent question is one which has also been discussed here. I did not intend to go into it extensively. I find, however, that the fundamental patents are still in force, but have only a short time longer to run. You are perfectly safe in proceeding along the lines on which you propose to operate at the present time for the development of your simultaneous circuits. You have nothing to fear on that score. The independent telephone manufacturers are already preparing to make apparatus on which patents are soon to expire. We do not advise any one to infringe a valid patent, and we have endeavored to always avoid doing so; but when we know patents are soon to expire, we get in readiness for the manufacture of a protected article, just as other business men do in their lines where a certain product has been protected by patent.

In conclusion, there is one point I wish to touch upon. I presume that it is very natural that every young fellow—perhaps some of the older ones—who has learned telegraphy, feels that with the incoming of the telephone in telegraph service he may lose his job. Yet the introduction of telephony into more general use in railway service will have rather a beneficial effect, for the railroad companies cannot afford to put in a telephone here and there, and with it only a fifteen or twenty dollar operator to manipulate it. The class of men who will be entrusted with this part of the railway business will

command at a telephone just as much money as they ever did in the telegraph service; you must have ability in such work; railroad companies must and will protect the lives and property entrusted to their care; they cannot afford to jeopardize these interests by the employment of any inefficient operator at a cheaper salary. You simply change your operator from one condition of service to another, and one presenting broader opportunities than when he was tied to the key. I can cite you many an instance where the telephone has brought about for an ambitious young fellow the best of results. There is nothing like knowing who the man is you are talking to; like feeling over the wire the vibration of a voice that comes strong and true; like knowing in this way that a bright and capable young man is at the other end of the wire, and that he is there for a purpose—one which he is fulfilling. You recognize this fact, although you do not see his face. That voice becomes imprinted upon your memory; you want to meet him; want to know who that bright young man is, or who that clerk is at that particular station; he who is taking care of everything so rapidly and so successfully. You find him out and he is recommended for promotion and advancement. He might sit at a telegraph key year after year, and other than being complimented in the office for his quick work, he does not begin to stand the show that the man does who operates the telephone under similar conditions. Just think that over, gentlemen.

Gift to James W. Tillinghast.

James W. Tillinghast, the retiring manager of the Western Union Telegraph Company, at Buffalo, N. Y., on July 2 received a handsome loving cup from the employees of the main and branch offices of the company. The committee in charge of the presentation was John A. Pferd, assistant manager; Frank Kitton, chief operator; George A. Burnett, manager of the Great North Western Company; John Lapey, manager of the gold and stock department; Joseph Maxwell, manager of the special delivery department; John G. McNerney, superintendent of city linemen; Madison Buell, assistant chief operator.

Mr. Buell made the presentation address and spoke as follows:

"Mr. James W. Tillinghast—Sir. It is truly said that when a presentation of a testimonial takes place that by 'its kindly value and appearance, the silence or the pomp that attends it, the style in which it reaches you, may decide the dignity or vulgarity of those who tender it.

"The inscription upon this testimonial fully explains its object and character, and in carrying out the wishes of all the employees of the Buffalo offices of the Western Union Telegraph Company, as well as those connected with the Great North Western Company, we bear in mind the old saying that 'the sweetest pleasure is in imparting it.'"

Mr. Tillinghast, in response, said:

"In leaving the Western Union service, it is a source of unspeakable gratification to feel that I

carry with me the respect and regard of my comrades in that service. The beautiful token of that regard, which you have presented to me in behalf of the employees, will always hold the place of honor in my home."



JAMES W. TILLINGHAST,

The former manager of the Western Union office at Buffalo, N. Y.

The gift is a beautiful cup of sterling silver bearing this inscription: "A token of esteem. Presented to James W. Tillinghast, manager, on his retirement from the service, by the employees of the Buffalo office of the Western Union Telegraph Company, July 1, 1902.

At the bottom of the cup there is engraved a telegraph pole, having two, two-wire cross arms, upon which four wires are strung, and between the four wires, the apt and well selected quotation from Shakespeare, as follows, is placed:

"The friends thou hast, and their adoption tried, grapple them to thy soul with hoops of steel."

Carnegie Glad it's a "Mac."

F. M. McClintic, of Dallas, the Texas agent of The Associated Press and winner, at the Telegraphers' Tournament on March 1st, in Atlanta, Ga., of the Carnegie medal, awarded to the most expert telegrapher, on June 21 received an autograph letter from Mr. Carnegie, written at his home in the Scottish Highlands. It read:

"Heartly Congratulations, my dear Mr. McClintic, upon your great victory. I'm glad it's a 'Mac' that won the medal. Must be Scotch blood in the victor. 73. Yours always,

"ANDREW CARNEGIE."

The best portion of a good man's life—his little nameless, unremembered acts of kindness and of love.—Wordsworth.

The Stevens' Wheatstone Transmitter.

The new Stevens' Wheatstone Transmitter was the subject of considerable speculation at Newmarket, England, during the recent races, but the highly satisfactory results of the trials, both experimental and official, left little doubt as to its success and probable early adoption by the department.

One of the principal features of the instrument is a contrivance to re-transmit received perforated slips, the advantage obtained over the present system of first transcribing and then re-punching being obvious, especially at offices where large quantities of press work are dealt with for transmission.

At the experimental trials in April, with circuits made up between NR. (Nevin), SF. (Sheffield), LS. (Leeds), NT. (Newcastle), EH. (Edinburgh), and GW. (Glasgow), a speed of 150 words per minute was attained, and 100 words between NR. (Nevin), DN. (Dublin), forked to CK. (Cork), and BE. (Belfast).

The official trials were made a few days later, under the direction of Mr. Groves, of Cambridge, representing the superintending engineer of the district over lines running between NR. (Nevin), TS. (London), BM. (Birmingham), MR. (Manchester), and LV. (Liverpool), and NR. (Nevin) and LS. (Leeds) at a speed of 150 and 180 words per minute, respectively.

The new transmitter for re-transmitting perforated Morse slips is a very simple contrivance. It consists of the usual train of wheels and weight for drawing the slip under a jockey wheel, and over one end of a pivoted lever, the other end of the same lever being the line which moves between the "positive" and "negative" contacts. The action of the lever is controlled by the perforations in the slips, which follow each other in a straight line.

Mr. Charles Stevens, of the secretary's office, London, who takes a very keen interest in all matters connected with the science of telegraphy, is the inventor.—London (Eng.) Telegraph Chronicles.

[A United States patent, No. 647,729, for an improvement in the Wheatstone automatic telegraph system was granted on April 17, 1900, to Messrs. Stevens, Vyle and Milner, of England.

By this improvement the Wheatstone system has now been brought to a high degree of perfection so far as regards the speed and certainty with which signals can be transmitted along a line wire of even considerable length; but, from the commercial point of view, there is still the unsatisfactory feature that when a high speed is attained on the line wire an enormous accumulation of slip always takes place at the receiving station. The difficulties of dealing satisfactorily with this accumulation of slip are well known to those who have charge of important telegraph offices, and it will be admitted that it is practically impossible to dispose of the work without delay frequently occurring unless an excessive staff be provided. These well known difficulties will increase rather than diminish if further progress be made in the present direction; that

is to say, if a successful effort be made to work the Wheatstone automatic system at an even higher speed. The one thing needed to make the Wheatstone system perfect is the abolition of the received slip and with it all the attendant difficulties and inconveniences; if it were possible to do this, the system would become far more effective and economical, and less delay would accrue to work, even though the actual speed of working on the line wire were somewhat reduced.

The invention now in question enables this to be done. The messages are prepared in the usual way on a perforated Wheatstone slip at the sending station, but the signals are received in the Morse code on a slip, which can still be read by sight if necessary, but which is perforated in such a way that by passing it through a small portable translator the signals can be read by sound at any desired speed. The translator, which includes a sounder, is made portable and self-contained in order that it may be readily carried to any part of the operating room and placed by the side of any operator who may for the moment be disengaged and therefore in a position to read off a few messages by sound from the slip which has been received on the Wheatstone circuit. The advantages of thus replacing slip reading by sound reading are obvious. Slip reading is not only trying to sight, especially at night time, but it tires the operator much more quickly than does sound reading. The average speed for slip readers is less than fifteen words per minute, while the average rate of sound reading is very moderately estimated at from twenty to twenty-five words a minute.

By a simple addition to the translator the received perforated slip may be made use of to translate signals to a distant station instead of simply actuating a local sounder; and by this means an enormous percentage of the transmitted work in a large office may be dealt with without the message being actually written up. In such cases the perforated slip may be put through the translator either at key speed, when the messages will be received direct from the line at the distant station, or, should the amount of work be sufficient, the speed of the translator can be increased and the receiving operator at the distant station can switch on one of the new instruments and receive the messages on a perforated slip exactly similar to that passing through the translator. This received slip would of course be written up by two or more operators from sounders attached to translators.—Editor.]

Mexican Telegraphs.

The Mexican government reports for the last fiscal period that 218 miles of line have been constructed; that 185 miles of iron wire have been replaced by bronze wire, and that the installation of Federal wires in the streets of the capital has been renewed, besides which the entire system is now under repair, for which purpose about twenty-seven tons of iron wire, and over ten tons of bronze wire, have been employed.

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NEW YORK, July 16, 1902.

NOTE.—We desire to state that back numbers of this paper, those issued more than six months prior to any current date, will be charged for at the rate of twenty-five cents apiece when they can be furnished. This price is fixed because of the necessarily limited stock we carry, and of the difficulty we commonly have in filling an order. Oftentimes the request is for papers of a more or less remote date, with the expectancy of being supplied at but ten cents a copy, whereas in order to obtain the desired issue we are ourselves frequently obliged to pay the larger sum, or even more. The growing value of complete files of TELEGRAPH AGE should cause our readers to carefully preserve their issues.

The leading event in telegraph circles was the transfer on July 1, of the telegraph service on the Pennsylvania Railroad at all points east of Pittsburgh and Erie from the Western Union Telegraph Company to the Postal Telegraph-Cable Company. The matter is referred to elsewhere in our columns, and the details there given will be found to be an interesting chapter in telegraphic history.

Improvement.

Telegraph business has shown remarkable activity of late and all signs point to a continuance of heavy work. The competition for business between the Western Union Telegraph Company and the Postal Telegraph-Cable Company was never so keen as at present. All this points to a material benefit to the operator, inasmuch as these conditions must soon create a greater demand for the services of good men, and as both companies are actually short of competent operating help, the situation must also lead inevitably to an increase of salaries.

It is significant to note in this connection that the pay of several hundred Western Union men in the Eastern Division of the company's service, confined mainly thus far to local branch managers, heads of departments, chief operators, etc., although some operators have been affected, have been advanced from \$1 to \$6 per week. And this has been done, too, in the face of gradual but steadily increasing operating expenses, to meet which requires the closest kind of business management.

Regarding the matter of salaries paid to telegraph operators, it may be remarked that none are showing a more intelligent interest, governing liberal intent on their part, with a disposition to treat fairly the great body of men in the company's employ, than the Western Union officials themselves who for years realized that the operators at best were underpaid. Verily, the outlook for the members of the fraternity was never so bright as now.

Organization.

Organization among the commercial telegraphers of this country appears to be a proposition that is being agitated in more or less degree in different cities of the country. The meetings called in favor of the movement indicate, as plainly visible, the influence of the American Federation of Labor, together with that of the Order of Railway Telegraphers.

No doubt the desire to organize all of the telegraphic operating forces of the United States into a single, compact body wherein harmony of thought, of purpose and of action, may be assured, is a natural one. Such a force, properly directed, would become a power, and might be made to serve well the legitimate ends of the fraternity; to materially secure, advance and maintain its wellbeing and that of its individual members.

Organization, simply, as everybody knows, does not always promote the best interests of those for whom it is supposed to be designed to benefit. It should never be used to stir up strife and the baser passions of men, nor be always parading a chip on the shoulder. When it is used in this way it becomes a positive detriment, an excrescence on the body politic. It should aim to exert an influence, to develop a higher conception of duty in men, that they may know that all men have rights, and that employers as well as employes have interests to be respected, and acknowledged and safeguarded.

Organization should never become merely the exponent of the disgruntled few, but should endeavor to awaken in them a sense of right, and fairness, and guide them through logic, and reason, and justice, to a sound and broad and liberal view, unobscured by prejudice, malice, or resentment.

Organization should seek to secure and merit that warm human sympathy which goes out to every proper effort in the direction of serving well the legitimate ends of man's social, moral, mental and material advancement, and should strive to dignify and strengthen Labor, but not to the disadvantage of, or unfairness to, Capital.

Organization should have for its ideals the firm-

est principles of right and honor, with the Golden Rule as both the corner stone and the keystone of all its motives. It should never curtail, or restrict the man with laudable ambition to reach in an honorable way the top. There are very few officials to-day of any prominence in the telegraph service who did not start from the bottom, and none who have succeeded but those who have always been industrious and studious and alert, and who are still so.

Telegraphers are a trusted, honorable body of men and women, carrying at their fingers' ends vast and varied interests that affect every individual and every home in the nation. They should not lightly look upon such a trust, but should sacredly and jealously guard it. They are in the field of labor, as a special class, and so it would seem to be well that in any telegraphers' organization only the wisest counsels should prevail, and only the most conservative leadership and methods should be permitted to govern.

Postal Takes Possession.

The Postal Telegraph-Cable Company began its operations under its contract with the Pennsylvania Railroad Company on July 6 by preparing quarters for its operators in the large railroad stations from New York to Pittsburg. Instruments were installed and everything was made ready for the transmission and receipt of telegrams.

A special clause in the lease given to the Western Union provides that the telegraph company can be forced to give up its quarters in the stations at Philadelphia, Jersey City, Baltimore, Washington and Harrisburg on thirty days' notice. The Postal Company is now in operation at all these places. Notice to vacate has already been given to the Western Union.

The Postal will begin the work of constructing its lines along the railroad at the earliest possible moment. An order for twelve thousand miles of wire has already been placed, and as soon as the delivery of this has been begun a large force will be put at work stringing the wires. For the present the Postal company will use the railroad's own wires. None of the Postal's lines along country roads are to be abandoned, even where they will parallel the new railroad lines.

One effect of the new contract will be the installation of Postal Telegraph offices in about two hundred towns where the Western Union has heretofore had a monopoly, but this step will not be taken until the wires along the railroad have all been strung. As all the Western Union offices in these towns connect with the railroad wires, it will be necessary for that company to construct new lines or abandon operations in these places. Along the road the Western Union and Postal signs hang side by side temporarily. The Western Union Company's contract in regard to the smaller stations holds good until September 30, and it is believed that both companies will do business in these places until then.

Mr. Charles P. Bruch, assistant general manager

of the Postal Telegraph-Cable Company, New York, was in Philadelphia last week arranging the details of the transferring of the Pennsylvania Railroad telegraph lines to the Postal system.

It was announced on July 7 that the Western Union has been directed to cease using the lines of the Pennsylvania Railroad Company by September 30.

The railroad company's action in making an agreement with the Postal and giving notice to the Western Union to take its instruments off the line has attracted widespread attention. Now that the Postal has begun to operate the telegraph service on the system of the Pennsylvania Railroad east of Pittsburg and Erie, every move on the part of either company is being closely watched.

A new aspect to the case was given by President Cassatt on July 7, when he said: "We have given the Western Union Telegraph Company until September 30 to remove its instruments and other property from our offices. The notice reads: 'You are hereby directed to remove the property of your company from our premises as soon as convenient, but not to extend over September 30.' We do not look for any trouble. The contract with the Western Union had expired, and we made a new one with the Postal Telegraph Company."

Contrary to expectation, there was no friction in the handling of messages on the railroad. The work of installing the Postal's offices on the line is being pushed, and it is believed that all arrangements will be perfected sooner than was at first expected. It is said that when the time shall come for the removal of the poles and wires and the giving up of the right of way the Western Union will fight to keep poles and wires in place.

Post Office Orders by Telegraph.

A bill has been introduced in the Senate by United States Senator Penrose, of Pennsylvania, as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Postmaster General be, and he is hereby, authorized and directed to enter into contract with any existing telegraph company, or with any telegraph company that may hereafter be incorporated, for the transmission of postal money orders by wire, in ciphergram or otherwise, instead of by mail, and between the cities of Washington, Baltimore, Philadelphia, New York, Boston and intermediate points, and he is hereby authorized to expand the service wherever he may find the revenue equal to the expenses of the service. The charge for the transmission of such postal money orders shall be at the telegraph rates fixed by the Postmaster General under the act of July 24, 1866.

"Section 2. Any company hereafter organized for the purpose of carrying into effect this act shall have all the rights and privileges extended to companies under the act of July 24, 1866."

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The Defense of the Morse System.

BY J. C. BARCLAY,

Electrical Engineer of the Western Union Telegraph Company, New York.

My "strongly expressed views on automatic telegraphy" to which Mr. Delany takes particular exception to are more than fully justified by the long and costly experience of the Western Union and other telegraph organizations in connection with the operation of such systems. It is not an uncommon, and, perhaps, not an unnatural tendency on the part of those with "axes to grind", to cavil at, and criticise the policy or action of any company that appears to be inimical to the adoption of such invention, system or scheme in which they are directly interested.

This particularly applies to the advocates and adherents of chemical automatic systems, who invariably raise the cry of antedeluvianism against any position or attitude which may happen to be at variance with their own notions concerning so-called up-to-date methods of telegraphy. To such, it matters not that the objections offered are based upon past experiences showing conclusively that these systems possess neither the accuracy, reliability, efficiency or economy of prevailing methods. Nor does it count for anything that the needs or requirements of the telegraph service do not, in point of fact, call for the employment of these alleged superior systems, whose defects and shortcomings of the past have yet to be satisfactorily demonstrated as having been practically overcome.

I know of but one really practicable high-speed automatic system in use to-day (the Wheatstone) that has stood the test of time, and even that can only be utilized to advantage as an auxiliary to the Morse system. The introduction of the Wheatstone into the Western Union service was attended with considerable difficulties in adapting it to the requirements of that service. Only after long and costly experimenting was this found possible, despite the fact that quite a number of expert Wheatstone operators were imported for that especial purpose.

It is obvious that when a system possessing features and properties of a much more practical character than those of any known chemical system cannot be worked satisfactorily without so much time and money being spent in bringing it up to the requisite standard, the chances of establishing and successfully operating less highly developed and more uncertain systems at much higher rates of speed must be very remote indeed.

College professors, interested inventors, promoters and other advocates of the fast method of transmission may figure it out theoretically, and say what they please regarding quicker service, cheaper rates, or other alleged benefits to be derived by the public from the adoption of automatic methods of working, but twenty years of actual experience with the best of these methods has emphatically demonstrated the utter fallacy of such reasoning and conclusions. One phase of

the question that has seemingly been entirely overlooked by those who urge the adoption of improved methods of high speed communication is the fact that whatever necessity may have originally existed for the use of automatic systems passed away with the multiplication of wire facilities.

The business of the Western Union Telegraph Company, as intimated in a previous communication, can be and is now being handled to better advantage, and with greater despatch, accuracy and economy by "Morsing" the numerous wires at the company's disposal; the Wheatstone finding its sphere of usefulness as an adjunct, and a very valuable one in emergencies, as in case of breakdowns, etc. This course, it may be remarked, has also been adopted in the British telegraph service—the very home of fast speed telegraphy—and for reasons precisely similar to those above mentioned.

The arguments advanced by Prof. Crehore in favor of the Craig idea of distributing perforating machines among business houses, with the view of relieving telegraph companies from all other functions except that of actually transmitting the messages from the slips prepared for that purpose, are not in the least convincing. This plan would not only involve the employment of more or less costly machinery, the maintenance of an expert force for the preparation and transcription of slips, but it would also lead to endless trouble and confusion in locating errors and in placing the responsibility therefor. There are, indeed, so many disadvantages, dangers and difficulties to be apprehended from a practical point of view, and there is withal so little actual necessity for the adoption of such a scheme, that its acceptance cannot be regarded as a serious business proposition.

While the attitude of the Western Union is entirely friendly towards those who possess inventions or devices of any real merit or promise it is not to be expected that it can seriously regard the extravagant claims, or entertain the absurd proposals of every Tom, Dick or Harry with an invention of the gold brick variety to dispose of, the sterling value of which is, as a rule, apparent only to the parties immediately concerned. Nor can this company be justly accused of indifference to the "the ideas of those who stand for development in telegraphy commensurate with the advancement of recent years," inasmuch as it is continually experimenting with the latest and most promising appliances, and is keeping in close touch with any practical device or innovation, calculated to expedite and cheapen the present telegraph service.

The "trial of the foreign automatic system" made by the writer and so sneeringly alluded to by Mr. Delany, was in itself a clear indication of the disposition on the part of the company to grant facilities for putting to a practical test a new and much exploited system of the most rapid type of automatic telegraphy. The way in which this action has been misconstrued by Mr. Delany

only goes to show that by a certain class of disappointed inventors the Western Union, at least, is bound to be "damned if it does and damned if it don't" afford the desired opportunities for testing the feasibility of "up-to-date" schemes.

All statements to the contrary notwithstanding, the Western Union has ever shown a highly progressive spirit in matters affecting the best interests of the telegraph service, and has only frowned upon what was regarded as impracticable schemes, or revolutionary ideas having for their object the demoralization or destruction of those well-tried methods of working that have proved the mainstay of industrial telegraphy in this country.

The charge that it has been slow to accept improvements adopted by other companies, is one that can only be justly applied to systems or appliances of dubious merit or character, and but poorly adapted to the lines, requirements or necessities of the Western Union service. In this category may be included the chemical system, which, for reasons already specified, this company has no use whatever; the costly and complicated synchronous multiplex system, that can only be worked satisfactorily over limited distances; and the porcelain insulator, which, owing to climatic conditions alone, is employed to better advantage in England than could the more hygroscopic, but less expensive, glass insulator used in the United States.

With regard to certain of the other matters mentioned by Mr. Delany, it is only necessary to say that just as soon as the Western Union became convinced of the superior advantages of sound-leading copper conductors, storage batteries, dynamotors, etc., it lost no time in adopting these improvements. The very success of the company, in the face of active competition, depends, indeed, upon its quickness to perceive the importance and desirability of methods calculated to increase the efficiency of its service.

This consideration has necessarily induced the company to investigate and promptly inaugurate such changes and improvements as could be safely, appropriately and beneficially applied to its lines. For proof of this, one has but to look at the number of different systems in operation, the wide range and variety of its machinery, embracing, as it does, all kinds of new and novel appliances of the most modern description, to say nothing of the thousand and one schemes and devices that have been tried and found wanting.

Many of the principal standard methods of working in use to-day have, as a matter of fact, been either largely or wholly developed by the Western Union. The quadruplex, for instance, was in but a partial stage of development when that company took hold of the system, and it was only through the energy and painstaking efforts of such men as Mr. F. W. Jones (who was the first to make it a really practical working success), Mr. Gerritt Smith, and other officials of the company, that its present stage of efficiency was finally reached.

It would occupy too much space to refer in detail to what has been accomplished in this particular direction, but enough perhaps has been said to show that the Western Union, far from being the slow-going, antiquated organization that certain persons would have the public believe, has in reality done more to foster, develop and render telegraphy commercially practicable than any other telegraph organization in existence.

Touching now upon Mr. Delany's criticism "that with the speed ranging from 10 to 60 words per minute and 30 cents for 10 words, it is no wonder that the number of messages falls below one per head, it should be remembered that the 60,000,000 messages to which this criticism refers represents the number handled by the Western Union alone during the past year. If to this number be added those sent over the Postal, The Associated Press and railroad wires, as well as over the various bankers', brokers' and newspaper lines, controlling as they do a multiplicity of leased circuits, the grand total would amount to not less than 200,000,000 messages per year.

The charge is everlastingly made that the telegraph tolls in this country compare unfavorably with those of foreign countries. What are the facts in the case? Take Great Britain, for example. There the charge to any part of the Kingdom is twelve cents for as many words, including the address and signature. The address and signature will certainly, as a rule, contain not less than six words, so that the rate may be said to be two cents per word for the body of the message, one cent per additional word being charged when the number exceeds the minimum of twelve words.

Now, a message containing ten body words may be sent from New York to Philadelphia for twenty cents, or two cents a word, the sender having the privilege of making the address and signature of any desired length without additional cost. And it may interest, if it does not surprise the reader to learn, that with the address and signature counted the total number of words in these so-called "ten-word" messages averages about thirty. For 25 cents a message of 25 words may be sent between any two points in England, but the 25-cent rate in this country covers a very much larger area.

When, however, it comes to a question of greater distances than those possible in England, we find that the difference is all in favor of the American tariff. The rate, for instance, from New York to Chicago (984 miles) is 40 cents for ten body words with no charge for address and signature, whereas between London and Vienna (980 miles) the rate would be nine cents per word, or ninety cents for the text of the message alone. A ten-word text message, New York to Milwaukee, costs fifty cents, address and signature being free. The same message between London and Madrid, a corresponding distance, would cost \$1.30 for the text, and thirteen cents for each word contained in the address and signature. For \$1.00 a ten-

word message, exclusive of address and signature, can be sent from New York to San Francisco. To send a telegram from any point in England a similar distance on the Continent would cost probably not less than three or four dollars.

It would appear then, all things considered, that while for short distances the rates here are no higher than in England, the long-distance rates on the Continent and between England and the Continent are much higher than those for similar distances in the United States.

It has been said that Europe is at least ahead of America with regard to its telegraph equipment and service. As far as the writer knows, the United States is the only country in which telegraph lines are operated direct from dynamo current. Representative electricians from nearly all parts of the globe who came to visit the World's Fair in Chicago, and who inspected the Western Union offices and system there, stated distinctly that the progress of telegraphy in the United States was very far in advance of what it was in Europe, and there is no reason to believe that the case is any different now to what it was in 1893.

To quote a recent utterance of a high authority in this country: "The active competition between our two great telegraph companies has been not only of economic advantage to our people, but it has assured them of the highest condition of efficiency. Every new labor-saving and time-saving device is promptly adopted, until we have admittedly to-day the finest and most expeditious electrical service in the world. The service in England is almost proverbial for its slowness and lack of mechanical facilities, and she has so far operated her lines at a loss."

In the latter connection it may be of some interest to state that the official annual reports of the British Postmaster-General shows that there has been a large deficit every year since the Government purchased the lines in 1869. The average shortage for the past nine years amounts to \$2,423,555.

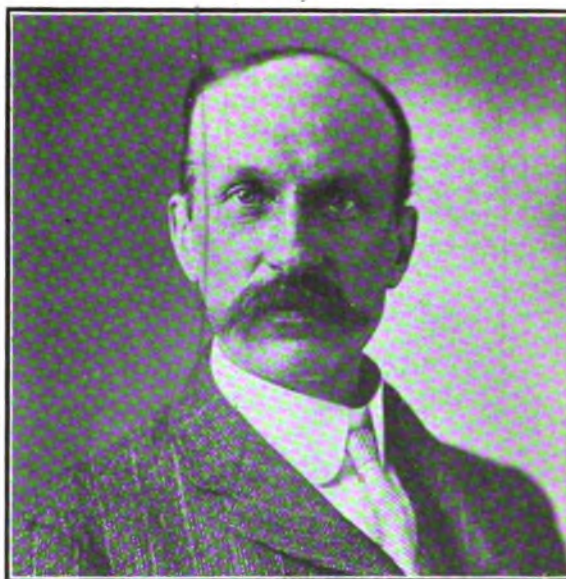
In conclusion I would add that, while it has been generally conceded that the business demands of commercial telegraphy in this country have been satisfactorily met, the Western Union Telegraph Company recognizes the possibility of a better and more liberal service, and is ready to welcome any effort for its provision.

Messrs. C. I. Hudson & Co., bankers and brokers, of New York, recently purchased thirty copies of the new edition of Phillips Code to supply their operators and outside wire connections, to be used as an auxiliary of their private wire service. The adoption of this code for this purpose will no doubt greatly increase the capacity of the leased wire service of this well known firm.

No up-to-date telegrapher can afford to be without TELEGRAPH AGE. Send for a sample copy.

From Waterbury, Conn., to Buffalo, N. Y.

In the extensive transfers instituted by the Western Union Telegraph Company effecting the managing heads of large offices at important centers, the change of Mr. William A. Sawyer from the Waterbury, Conn., office to that at Buffalo, is significant inasmuch as it further emphasizes the determination, elsewhere made clear, that merit in the service shall be rewarded. It is said that Mr. Sawyer had managed the office at Waterbury in a manner to be highly commended. He was born in New Haven, Conn., on November 11, 1857, and in 1870 commenced his telegraph career as a messenger boy for the Western Union. When the Mutual Union Telegraph Company established an office at Waterbury, Mr. Sawyer was appointed to its managership, and built up a large business in its behalf. On the Mutual Union's death he organized the Waterbury District Telegraph Company, one of the



WILLIAM A. SAWYER,

New Western Union Manager at Buffalo, N. Y.

most successful district systems in the United States, having an extensive night watchmen's and burglar alarm plant, besides doing a phenomenal messenger service. Originally this company was operated in connection with the American Rapid Telegraph Company, and later with the Bankers' and Merchants'. In 1887, Mr. Sawyer transferred the company from the opposition to the Western Union Telegraph Company, still maintaining, however, a separate office, until January 1, 1894, when both companies moved into one office under his management. The Waterbury Company is now a part of the American District Telegraph and Messenger Company's system, and in addition to the position he held as manager at Waterbury, Mr. Sawyer was also superintendent of construction for the American District Telegraph Company, of Connecticut. Mr. Sawyer is an ardent sportsman, and many trophies of his skill as a hunter adorn his home.

Western Union's New Manager at Baltimore.

Mr. J. M. Creamer, the new manager of the Baltimore, Md., of the Western Union Telegraph Company, where he succeeds Richard J. Bloxham, in accepting this appointment returns to his native city, his birth there occurring on January 25, 1860. Mr. Creamer's advent into the telegraph service dates from 1878, in which year he became a messenger in the Western Union. His first experience as an operator was in the railroad service in Baltimore. Then he went with the American Union Telegraph Company, first at Richmond and then at Petersburg, Va. The consolidation of this company with the Western Union caused his transfer by the latter to Salisbury, N. C., and to Baltimore, from thence going, in 1884 to Cleveland, O., and on January 1, 1885, to St. Louis. Returning to Baltimore later in the same year, he entered the employ of the Baltimore and Ohio Telegraph Company, which was continued at Boston and New York. When this company was absorbed by the Western Union, Mr. Creamer was retained as an operator, serving partly on the cable staff. In 1889 he was back again in Baltimore, for a brief time as a press operator, but



J. M. CREAMER,

New Western Union Manager at Baltimore, Md.

finally returning to the Western Union, by which he was shortly after sent for a few months to act as quadruplex chief at Richmond, Va., and then in October following being transferred to Knoxville, Tenn., as manager, a position he has since held until his recent transfer to Baltimore. Mr. Creamer's varied experiences has given him a close familiarity with all branches of telegraph work and peculiarly fitted him for the larger office to which he has been called.

New Chief Operator at Philadelphia Western Union Office.

Mr. T. A. McCamman, who has lately been appointed chief operator of the Western Union Telegraph Company at Philadelphia, Pa., to fill the place made vacant by the resignation of E. B. Saylor, was transferred from a like position at Denver, Col. Mr. McCamman is a Canadian by birth, having been born at Kingston, Ont., December 27, 1859. He



T. A. MCCAMMAN,

New Chief Operator Western Union Telegraph Company, Philadelphia, Pa.

became connected with the telegraph in his native place, entering the service of the Old Dominion Telegraph Company in 1875. He afterwards worked at Toronto and London, Ont. His first work in the United States was that of train despatcher for the old Denver and South Park Railroad in Colorado. From thence he went to San Francisco and subsequently to Salt Lake City and Omaha, at the latter point becoming night chief for the Western Union. In 1892 he was transferred to Denver, Col., to become chief operator, which in turn, he has now left to come East.

Mr. McCamman has a pleasing personality. His long residence in Denver greatly endeared him to the Western Union employees who, upon his departure, united in presenting him with a very valuable gold watch.

Those who contemplate subscribing for TELEGRAPH AGE, and who would first like to inspect a sample copy, should not fail to write for the next issue.

The foolish and wicked practice of profane cursing and swearing is a vice so mean and low that every person of sense and character detests and despises it.—George Washington.

First Train Dispatching by Telegraph.

As the question of when train dispatching by means of the telegraph first came into practice has become somewhat of a mooted one, a careful investigation of the subject enables us to place before our readers some interesting facts in relation thereto. However substantial may be the claims advanced by those quoted below for initial work in this connection, it will be observed that the dates mentioned, namely, in the early fifties, coincide with those generally accepted as marking the beginning of this method of regulating the movements of railroad trains.

Mr. David H. Conklin, better known perhaps as "Dandy" Conklin, a native of New York City, and who is now living quietly in retirement at the age of seventy-one at Decatur, Ill., of which city he has served a term as mayor, makes a strong claim for the Erie Railway as the first road employing the telegraph in dispatching its trains. In a recent letter he says:

"My connection with the Erie telegraph commenced January 3, 1851, when I was asked to go to the office at the eastern end of the Erie road, then terminating on the Piermont pier, Hudson River. The telegraph line was under construction, in sections, along its entire length. Between the end of the pier and Goshen it was complete, but the main battery had given out and I was asked to go from New York and open that part of the line. When asked by Mr. Minot, the general superintendent, to undertake this job the latter expressed his annoyance at the failure of the telegraph line to work, that the directors had allowed the construction of the line at his especial request and representation that it would be of the greatest value in moving trains. I was asked to remain only for the time necessary to get the line working to Goshen, but becoming much interested in developing the uses of the wire I remained with the company until December, 1856.

"I am quite positive the Erie road was the first to use the wire for moving trains, and remember that Mr. Minot, when going over the road with his special train, if detained by other trains that were off time, would move his special against them, doing the 'dispatching' himself.

"The gaps in the line were soon closed and I was sent to Susquehanna, arriving there the day previous to opening of the road to Dunkirk. I recollect the talk of engineers and trainmen regarding the movement of trains by wire. The engineers were decided that they would not act upon such orders as there was nothing in the 'Rules and Regulations' to warrant such action. Within a few days the test came. A passenger train east and west bound, by time card should meet at Addison, the west-bound train ruling for one hour (I think) over the east-bound train. If the east-bound train was moved by wire it would meet the west-bound train at Elmira. The order was sent and the crew of the east-bound train refused to act upon it, whereupon an order was issued by the general superintendent that thereafter

such orders would be obeyed. And then commenced the moving of trains by wire upon the Erie Railroad, and I may add if orders were not given and trains delayed thereby, the dispatcher was d—d as he has been ever since.

"The Delaware, Lackawanna and Western Railroad completed its wire in December, 1856, and was the second railroad in the United States to introduce train dispatching. I was engaged to fill the position of superintendent of telegraph and train dispatcher, and to report therefor January 1, 1857, but I did not get my release from the Erie until January 3. The former company had just completed its road to a connection with the Central Railroad of New Jersey at Hampton Junction, thus becoming a competitor with the Reading Railroad for the anthracite coal trade. The Lackawanna road was difficult to operate for there were heavy grades out of the Lackawanna Valley necessary to overcome the Pocono Mountain range and covering a distance of about nineteen miles. A train usually consisted of sixty four-wheeled cars each containing about six tons of coal. The train started from Scranton with twenty cars and took on forty more at Lehigh Summit. There were two crews that were called 'mine and summit,' each working three locomotives coupled to sixty cars, a supply of cars being kept at Lehigh Summit for the through trains.

"As each crew made two trips daily the section of road between Scranton and Lehigh Summit was greatly crowded and as a consequence there was much delay. I recollect the day I took up the work there was much trouble. The company had large orders for coal and very few or no cars or engines, all were out upon the road, not infrequently three and four days being occupied in making the round trip from Scranton to Hampton Junction. The trainmen, engineers, conductors, firemen and breakmen were paid by the month, hence the delays were very damaging. It took only a few days to work among the men and post them up as to train orders, when the whole thing was changed. They were bright, intelligent men and quickly understood the new order of affairs and the daily shipments more than doubled. The Delaware, Lackawanna and Western road successfully competed with other anthracite producers and great prosperity followed.

"Then commenced inquiries from the managers of other railroads as to the train order system used by the Delaware, Lackawanna and Western. I was asked to send printed copies of the rules governing the same, to which I replied there was no system employed that could be explained in print, that the train dispatcher kept the trains under his control and used his judgment in their being moved by wire. Whereupon representatives of other roads were sent to observe and take note of the manner of doing this work.

"I mention these facts to show that the use of the telegraph to move trains was practically unknown as late as 1857, only two lines, the Erie and the Delaware, Lackawanna and Western being the only exponents of the same. Evidence

of the fact is that the young men that learned telegraphy with the Delaware, Lackawanna and Western and were familiar with train dispatching were taken from me continually by railroads that adopted the use of the wire for the movement of its trains. Many of them succeeded to prominent positions in railroad management in both the East and West.

"I am quite sure, as I have endeavored to show in the foregoing, that the Erie was the first to use the telegraph for moving of trains, and it was inaugurated in 1851."

Mr. A. G. Davis, an old telegrapher, and now the president of the Viaduct Manufacturing Company of Baltimore, Md., corroborates Mr. Conklin's statements regarding the Erie in so far as that he says he succeeded Mr. Conklin at Susquehanna on that road on January 1, 1853, at which date trains were being run regularly by wire.

Mr. Albert H. Copeland, a native of Middlebury, Vermont, and who now resides at Chenoa, Ill., urges that he was the first man to use the electric telegraph in the dispatching of trains. In a vein of pleasing reminiscence he says that in the winter of 1852 he was assistant postmaster of Middlebury. The telegraph, as was common in those days, was considered a part of the postal service, though not officially connected therewith, and the office at Middlebury was in a rear room of the building containing the post office. Mr. Copeland was the telegraph operator.

One evening the telegraph brought news to Mr. Copeland that a north-bound mail train from Boston, on the then Burlington and Rutland Railway, was stalled in the snow south of Rutland. The information came merely as a matter of gossip from the wire, but Mr. Copeland thought it would interest the conductor of a south-bound accommodation train scheduled to pass the mail at Brandon, a station midway between Rutland and Middlebury; so he took the trouble to go to the depot and inform the conductor that he might expect the mail to be very late at the meeting point.

It seems that the conductors in those days were just as fond of keeping schedule time all along the line as they are now, and Mr. Tiffany, this conductor, was wroth. He learned from Mr. Copeland that there was no operator at the Brandon telegraph office, the functionary having left his post for over Sunday. So he induced Mr. Copeland to board his train and go with him to Brandon, in order to be able to telegraph the delayed train direct from the meeting point. Arriving at Brandon, Mr. Copeland learned over the wires that the mail was at Rutland, and after interchange of several dispatches it was arranged that the mail should be held there to await the arrival of the accommodation and a freight then at Brandon.

It will be noted that the arrangement was made between the conductors. On the Rutland and Burlington, at least, the arrangement worked so well that thereafter it became a common thing for conductors to agree as to meeting points, by using the telegraph. Later, instruments were installed

in the depots for the convenience of the conductors, and as traffic grew, the latter were relieved of responsibility by orders being sent out from a single division office. The regular train dispatcher then became a necessity.

Denver's Western Union New Chief Operator.

Mr. John E. Jenkins, who succeeds T.A. McCaman, transferred to Philadelphia, as chief operator of the Western Union office at Denver, Col., was born in Cardiff, Wales, on January 27, 1865. He went to Denver when but six years of age and has since resided continuously in that city. He first became a messenger in the Western Union service in 1878, since which time he has received the pro-



JOHN E. JENKINS,
New Chief Operator, Western Union Telegraph Company,
Denver, Col.

motive rewards through the various grades of clerk, bookkeeper, operator, wire chief, assistant chief operator, and now chief operator, which his diligence has earned for him. Mr. Jenkins is an able electrician, and for a number of years has been regularly consulted relative to construction work in his district, and, it is said, latterly has established all of the larger new office in Colorado.

Wireless Telegraphy.

The United States Navy Department has decided to erect a wireless telegraph station at the Navesink Highlands, Sandy Hook, N. J., the entrance to New York harbor. This will be the first wireless telegraph station erected by the United States Navy.

The Cape Breton Marconi Transatlantic station is completed and ready for the instruments which Mr. Marconi will bring with him from London, the middle of this month. On his arrival it is reported that transatlantic business will be inaugurated.

LETTERS FROM OUR AGENTS.

[Advertising will be accepted to appear in this department at the rate of five cents a word, announcements to be enclosed with a border and printed under the name of the place of the advertiser. The special local value attached to advertising of this character will be apparent. Our agents are authorized to solicit advertisements for these columns, and further information on this subject may be obtained on application.]

WASHINGTON, D. C., POSTAL.

Mr. Fred. Hohbein, a first-class telegrapher, formerly of the Western Union, this city, has accepted a position with this company. Mr. Hohbein is well known to the fraternity at large.

Mr. H. C. Wooden, of the Howard House, who has been quite ill, is improving slowly.

Miss L. V. Johnson, receiving clerk, resigned on July 1 to be married. Miss Johnson had been here a little over a year, and in that time had won the esteem and confidence of not only our officials, and operators, but those who came in daily contact with her. A silver service set was presented to her by the officials and employees for her faithfulness and diligent attention to duties.

As Congress has adjourned, Mr. C. A. Burcke, who was in charge of the Corridor in the Capitol, is back at the main office, leaving Mr. J. H. Coleman alone there to look after our interests.

Mr. L. W. Carlton has returned from his vacation, after spending a week in Richmond, Va., his home.

WASHINGTON, D. C., WESTERN UNION.

The death of our beloved manager, Morrell Marean, which occurred on Sunday, June 22, was a great shock to the telegraph fraternity of Washington. Mr. Marean was conceded to be one of the most just managers that ever served a company; to say that he was beloved by every employee of this office, is speaking our sentiments lightly.

Mr. Marean's remains were interred in Oak Hill cemetery the following Tuesday, the funeral being private.

At a meeting of the employees, called to take suitable action on the death of Mr. Marean, Messrs. Wm. H. Young, J. W. Collins, J. H. King, R. W. Bender and J. C. Noyes were selected as a committee on resolutions.

The committee reported the following, which was unanimously adopted, and copies ordered to be sent to the family of the deceased, and to TELEGRAPH AGE:

"The employes of the Western Union Telegraph Company in Washington, D. C., having met to express their profound sorrow over the death of their beloved manager, Mr. Morrell Marean, hereby put on record the following resolutions, which but feebly manifest the grief with which they heard of his death:

"Resolved, That in the death of Mr. Marean each one of us has been bereaved of a friend. While always live to the interests of the company which we

serve, he was ever considerate of our individual relations, and kind, just and fatherly in all his dealings, and so his death is as if death had entered our own families:

"Resolved, That we share in the pride that his immediate family have in Mr. Marean's public standing. We knew him to have been one of the most expert and leading electricians and telegraphers of the country. For many years he had the cordial esteem and full confidence of the leading men in public life. In the discharge of his duties he held to the highest standard of faithfulness; and to this he added untiring energy, and full devotion to his work. We deplore his death, and shall ever cherish his memory."

Mr. Paul D. Connor, an operator at the War Department, was married recently.

Charlie Evans has gone to Indiana to spend the summer.

The closing up of the River View pool room resulted in Mr. Fred Klotz's returning to the Western Union.

Mr. Robert E. Layton, formerly of this office, has received his diploma, and is now practicing dentistry in this city.

Mr. Raymond E. Dickey is rejoicing over the arrival of a son at his house; while Mr. Arthur McLean rejoices over the arrival of a daughter.

Mr. Cheatham has left us for a sojourn in North Carolina.

General Superintendent B. Brooks, Electrical Engineer J. C. Barclay, and Superintendent J. B. Altberger paid this office a visit recently.

Mr. H. F. Taff is acting manager.

BOSTON, MASS.

Typewriters for sale, to rent and repaired. Remington, Smith, Densmore and all makes sold or rented on easy monthly terms to telegraphers. Send for samples, catalogues and full information to E. M. Bennett, Manager, The Typewriter Exchange, 38 Bromfield Street, Boston, Mass.

SAVANNAH, GA., WESTERN UNION.

This office can now be considered one of the best equipped in the South. Everything has been placed in an up-to-date shape.

An entire storage plant has been installed, also new sextette tables, new instruments, resonators and a beautiful counter. The interior is finished off in cherry and various other kinds of wood, giving it a very cosy and neat appearance. This office has made three moves since its establishment here, and if business keeps on increasing as it has during the last twenty years, there will be a clamor for more room again very soon.

About twenty-eight years ago this office was first located in one corner of the building, now called the City Exchange. But a few operators were then required to handle the business; now a regular force of twenty operators is needed, while during the winter twenty-five to twenty-seven are necessary. The business, though, is handled so systematically

that a delay is a rarity. The moving from the old office to the new was very neatly and quietly executed. Credit for this is due Mr. J. W. Brown and Mr. Descombes of Augusta, and Mr. Samuel Crowder, of Richmond, Va. Not a hitch occurred, in fact, everything worked as smoothly as if it were an every-day occurrence.

Savannah now has a fine union railroad depot, and a promise of some sky-scrapers to go up this fall. It is also the largest naval stores port in the world and second largest cotton port, and has the finest bicycle track in the South. There is plenty doing and plenty to be done, so there is no use in worrying. We take everything as it comes, consequently are always in good humor.

The personnel of this office is as follows: L. J. Maxwell, manager; Joseph Marshall, day chief; J. P. Rivers, night chief; operators: Harry Zeigler, P. F. Curry, E. M. Nance, L. M. Walker, Harry McEwen, T. H. Drakeford, C. J. Casey, W. J. Stanton, J. A. Hays, W. O. Hampton, S. F. Ledlie, Ike White, Joseph Von Newton, J. H. Nelson, and Hubert Morris. In the clerical department are: M. J. Galvin (the veteran), chief clerk; Mrs. Mamie Smith, receiving window; Miss Stella Paccetti, cable and deadhead clerk; Eugene Kelly, delivery window; Geo. Haygood, collector; Willie Maher and Charlie Von Newton, office boys.

The city branch offices are covered by Geo. McEwen, DeSoto Hotel; W. H. Rowan, Union Depot; Walton Morrissey, Central Depot; Chas. E. Stratton at the Ocean Steamship wharf. Joseph McEwen is at Tybee Beach for the summer.

CHICAGO, ILL.

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REBUILT TYPEWRITERS
LEADING MARKS
SOLD AT BARGAIN PRICES ASK FOR YOUR SHARE OF MACHINE.
GOOD AS RENTED ANYWHERE!

NEW. 122 LA SALLE ST. CHICAGO. ILL.

O. T. ANDERSON, MANAGER.

Wholesale Dealers in Platen and Parts.

Agency for Telegraph Age.

POSTAL.

Mr. Wall, service clerk at the Board of Trade office has just returned from a two-weeks' sojourn at the South. Mr. Thiault, his assistant, is now absent on his vacation, visiting friends in the East. Both of these men are well known among all operators.

BEAUMONT, TEXAS, POSTAL.

Mr. T. A. Darling still holds the reins, and is making things lively in the competitive line.

Did you ever see a long, tall, hungry looking man that did not make a first-class operator? How tall did you say Mr. Rochelle was? Six feet? Well, he's about seven on the wire, eh?

Mr. A. F. Felder is night chief, Mr. Talbot has resigned to go into other business.

Mr. Renaud is still on the books, with Willie Grigsby, day, and Harold Brown, night, clerks. C. A. Price is lineman.

BEAUMONT, TEXAS, WESTERN UNION.

We are sorry to announce the resignation and departure of our genial and popular manager Mr. P. G. Tompkins, who has so successfully carried the company's interests here through a most trying time of the oil excitement. Mr. H. B. Gates, formerly manager at Jackson, Tenn., takes his place.

Since our last letter, Mr. Joe Ashford, night chief, has left us, to take a position in New Orleans.

Mr. A. B. Forres, is filling the vacancy as night clerk.

Arrivals: G. W. Johnson, and E. T. Whitbread, while Chas. Ovelman is at the Oaks Hotel branch; George Hoencke, and C. A. Maxwell, both formerly of the Houston office, and W. P. Cobb, formerly of Jackson, Tenn.

Some of our old acquaintances won't know us when we get our office remodeled, and our new fifty wire switch board which it will take to accommodate the wires that are already in this town. The probability is that there will be several more wires constructed inside of a year.

Mr. Barron, the popular relay man for the Southern Pacific, has just returned from an extended trip north, taking in all the prominent watering places on the Eastern coast.

If you are troubled with operators paralysis writers cramp or lame arm, write to F. J. McDannel, Owosso, Mich., for a bottle of his Telegraphers Liniment. He guarantees it. Write for particulars.

MONTREAL, QUEBEC, GREAT NORTH-WESTERN.

Resigned: Miss Manseau, and Mr. Johnston.

A new copper wire has been constructed between Montreal and Boston, which will be worked as a quadruplex, mainly for broker and stock business.

Mr. and Mrs. Robert Kane were presented with a fine cabinet book-case by their fellow-workers on the occasion of their wedding recently.

MONTREAL, QUE., CANADIAN PACIFIC RAILROAD.

Mr. W. Currie is spending his vacation visiting Rapportage and Winnipeg, Man.

Master H. Masters enjoyed a two weeks' outing at Moncklands, Ont.

Mr. D. McKenna has accepted a position with the International School of Correspondence.

Resigned: A. T. King and A. Santamore.

Mr. F. Kenny has returned from Sherbrooke. GOSHEN, IND., NOTES.

The Western Union Telegraph Company has been moved into new quarters, formerly occupied by the City National Bank, one door west of the old office, and everything is new and up-to-date.

A. G. Paine, manager, who has held the position for fifteen years, is ably assisted by operators W. L. Mahm and Charles Putt, and messengers Jesse Bruce, and Tom Evans.

The Postal Telegraph office, located in H. N. Jenners' drug store has been remodeled, and presents a very great improvement. H. O. Putt, the manager, has been with the Postal for several years, and gives good satisfaction.

WESTERN UNION.

There were a number of new arrivals during the past month, among them being Miss Kittie Schulenberg of the Postal, this city.

W. H. Spencer, chief operator, has been confined to his home the past four weeks with neuralgia. He is now on the road to recovery and is expected back soon. His position is being filled temporarily by L. N. Boone.

Mr. E. L. Parmelee's son, Edward, who was with the Western Union for a time, was married recently.

PHILADELPHIA, PA.

My Motto:—Honorable Dealing. D. A. Mahoney special representative, main office, Western Union Telegraph Co., Philadelphia. Send for special low prices, monthly terms, "Fay-Sholes," "Jewett." All makes rented at \$3, and sold at \$5 per month.

WESTERN UNION.

In a personal interview, recently held, with Superintendent J. P. Altberger, that gentleman who is most courteous indeed, said that there was no cause whatever for the undercurrent of uneasy feeling which is said to exist among the employees here and elsewhere as to removals, decrease of salaries, etc. He was very emphatic in his denial and said that attention to business and a fair day's work was all that the company expected or looked for from its employees. Mr. Altberger also said that he was greatly pleased with Philadelphia and everything and everybody connected therewith.

Mr. J. W. Reed and Mr. T. A. McCamman, who succeed Messrs. A. G. and E. B. Saylor as managers and chief operators, respectively, have taken vigorous hold on their new duties and are rapidly mastering the details pertaining thereto. Both gentlemen are delighted with Philadelphia and its congenial people with whom, including the employees, they have made a very favorable impression, which is sure to ripen into sincere friendships.

The departure of the Messrs. Saylor was a source of sincere regret to all. Their capability and efficiency, was however, immediately recognized, as shown by their appointments to responsible and confidential positions in the New York office under General Superintendent Brooks.

Mr. F. G. Lamb, who was for nine years chief clerk to Superintendent J. J. Dickey at Omaha, Neb., is now filling the same position for Superintendent J. P. Altberger. Mr. Lamb is a congenial gentleman and is sure to make many friends here.

Mr. I. N. Barto, for many years test operator, has been appointed manager at Williamsport, Pa., vice H. H. Hetzel, resigned. Mr. Hetzel has filled this

position continuously for the last twenty-five or thirty years, and being well advanced in years, will take life easy for the remainder of his life.

Geo. W. Morris succeeds Mr. Barto at the switch as western chief.

Wm. Rebstein, of this office, was married July 3d to Miss Mary Matzkin, of this city. After the ceremony a reception was held at Mercantile Hall, which was largely attended.

Resignations: F. B. Dovenbarger and C. A. Dawson, the latter going to Washington, D. C., for the Southern Railroad Company.

W. Herlinger has gone to Cape May, N. J., for the summer as assistant to Manager Black.

The sympathy of many friends is hereby extended to W. A. Connor, manager of The Associated Press, this city, in the death of his wife, which occurred, after a short illness, on July 11.

Messrs. Pennypacker and McBride were sent to Camp Mead, at Gettysburg, Pa., to handle press matter during the recent encampment there.

POSTAL.

With the opening of new offices in the Pennsylvania Railroad main and branch stations our business has taken an immense boom, most gratifying alike to operators as well as officials. Further increases in the future from the same sources are anticipated upon the removal of existing competitive offices.

Better inducements with the Long Distance Telephone Company being held out, Mr. Milton Connell took advantage of the opportunity, resigning his position as operator on the first Chicago to accept the place offered.

A vacation trip to Europe is the special privilege of Miss Jennie Melville. She is accompanied by her mother and brother.

Miss Virginia M. Hagan is another of the fortunate ones to get away for a vacation.

Night Wire Chief M. A. Baker and wife; Harry Williams and wife, and James Mattson and wife anticipate a pleasant vacation season at Atlantic City.

Mrs. B. V. Gillespie, Miss M. Long and Mr. E. B. Melrath are late arrivals.

A most self-satisfied smile adorns the visage of Mr. Jay A. Thomas. The cause, readily ascertained, is the arrival of the first child—a boy.

Mr. Horace K. Holtzinger is experiencing a hustling time looking after the early morning traffic.

The responsibilities attached to the care of a busy branch office are being experienced by Mr. J. J. Beasley, who has been placed in charge of the Pennsylvania Railroad waiting room office, nights.

CLEVELAND, O., POSTAL.

Miss Carrie L. Colwell, formerly of San Diego, Cal., and a short time ago with the Western Union and now with the Postal, this city, and C. A. Hawley, of the Postal, announced their marriage, which took place November 19, last. It was a great surprise to all and we extend our hearty congratulations and best wishes.

On June 24 the cigars were passed around with the statement that R. R. Davies and Miss Gertrude E. Markham were married.

NEW YORK CITY.

"My Old Virginia Home Upon the Farm," one of the sweetest songs published; "God's Will Not Ours be Done," (McKinley's last words) strong descriptive song with martial music; "Left on the Battlefield;" "Down Where the Cotton Blossoms Grow;" "I'll be With You When the Roses Bloom Again;" "Any Old Place I Can Hang My Hat is Home Sweet Home to Me;" "Heirloom Waltzes;" Zenda Waltzes;" "Utopian Waltzes;" "Metropolitan March and Two Step;" 18 cents each. If you want any other sheet music write to me about it. I can save you money. PIANOS SOLD ONE DOLLAR PER WEEK. Address, B. L. Brannan, 195 Broadway, New York.

WESTERN UNION.

Mr. W. T. Brady, the number clerk of the operating department, will hereafter act as agent for TELEGRAPH AGE. The members of the force who have subscriptions to place or orders to be filled, will find in Mr. Brady a prompt attendant on their requests.

The chief operators in this office have been arranged in classes and the new order of things seems to give good satisfaction. The salaries of the various classes have been defined and equalized.

Considerable changing and renovating is now going on in the building. The book-keeping department on the seventh floor is being removed to the fifth floor, and the space previously occupied by that department will be given over to the operating room. The office of the general superintendent of construction, Mr. C. H. Bristol, has been removed from the sixth floor to the mezzanine floor. The offices of superintendent E. M. Mulford have been overhauled, and paint and varnish have added much to the comfort of those who have to occupy these quarters.

Messrs. J. V. McDonald, T. Brooks and E. R. Johnson, formerly of the superintendent's office at Syracuse, N. Y., have been transferred to similar positions in Superintendent Mulford's office.

Mr. A. Beatty, who has been connected with the Western Union Telegraph Company's time service, New York, for the past ten years, has resigned to engage in the electrical contracting and general electrical repairing trade at Yonkers, N. Y.

J. A. Arthen was married on June 24th to Miss M. Keil.

Mr. George Levee, of the Race Department, was married on June 29 to Miss Louise Alexander, of New York. After the ceremony a dinner was served at the Harlem Casino. The honeymoon was spent in Maine.

It is suggested by some of the old-timers in this office that the company might do a graceful act this summer by allowing all those who have been in the

service continuously for, say, twenty years and upwards, a vacation of a week with pay. This would be a merited concession, it is claimed.

James J. Dunigan, an old operator, and for years night manager of the delivery department, died on July 5. Nearly half a century ago, when a small boy, Dunigan went to work for the Western Union as a messenger. At the outbreak of the Civil War, a few years later, he distinguished himself by carrying dispatches for the government, risking his life on several occasions in delivering war orders to the army posts in and around this city. Probably the most exciting experience "Jim" ever had was in the winter of 1862, when he delivered a message to the commander on Governor's Island. The bay was frozen over, and a terrific storm prevailing. The only possible way to get to the island was by crossing on the ice floes. When "Jim" received the message he set out to deliver it. With a companion, John Youdale, he crawled over the ice from the Battery to Governor's Island, and handed the important dispatch to the colonel commanding. They were so exhausted when they were hauled on the island that they were sent to the military hospital. In the thrilling trip over the ice floes they were fired on by soldiers on the island, who thought they were spies attempting to get into a Union post. Youdale was shot through the right hand and became unconscious, but "Jim," with the bullets whizzing over his head, supported and half carried his companion over the ice until they were rescued from death by the soldiers.

Mr. D. P. Smith, of the race bureau, who was injured a short time ago by being hit in the back with one of the blades of a fan motor, is again able to be at work. His injuries were slight.

Mr. J. C. Konkle, chief operator of the Wheatstone department, has returned from Chicago, where he spent a week in the operating department in that city for the benefit of the service.

All feeling of disquietude among the men which was noticeable recently has apparently died out.

Mr. A. J. Driver, an inspector in the Gold and Stock Department, has returned from England, where he has been on a month's vacation.

Mr. R. Pfund, formerly of this office, but for some time past identified with the Marconi Wireless Telegraph Company, has gone to Alaska to establish a wireless telegraph system on the Yukon River for the United States Government.

POSTAL.

Mr. J. H. Hess, of the electrical engineer's office, has returned from St. Louis, where he assisted in remodeling and bringing the main office of that city electrically up-to-date. Mr. Hess has gone to Albuquerque, N. M., to similarly overhaul the office at that point.

The force was very much shocked to learn of the death of Robert W. Perrin, which occurred July 10 at the New York Hospital. He had been ill for two or three weeks but was not supposed to have been seriously so. He had been in the employ of the Postal for a number of years, and for the last year worked the Buffalo bonus wire. He had never

fully recovered from injuries received in a street car accident about two years ago.

Miss Katie Cusack has been transferred from the check department to the city operating force.

Mr. W. J. Evans has been transferred from the split trick to second Philadelphia bonus wire.

Mr. J. T. Needham, chief operator, has returned from his vacation.

Mr. Charles Obst, all night traffic chief, is away on his vacation.

The traffic department has already felt the effect of the acquisition of the Pennsylvania Railroad lines to a considerable extent, and it promises to make things very lively for the force in the future.

A number of transfers and additions to the force have recently been made, and will be fully noted in the next issue.

Mr. G. W. McGill, of the Boston Herald staff, is back again from a vacation.

TOLEDO, O., WESTERN UNION.

Mr. Thomas H. Harper, chief operator of this office, who resigned, as reported in our previous issue, has gone with the Long Distance people, at Maumee, this State, at a better salary than he received with the Western Union here. He takes with him the best wishes of every man in the office and of the linemen.

As a recognition of Mr. Harper's popularity, the boys, together with the linemen employed here, presented him with a beautiful solid silver tea service. The affair took place on June 29, the presentation speech being made by Mr. Wagner, our genial manager, who acquitted himself very gracefully. He said that when it began to be noised about that Mr. Harper had resigned, a committee was appointed to investigate his past record; that committee had made its report and the verdict was about to be given. Mr. Harper was completely overwhelmed for a few moments, but regained his composure sufficiently to return his thanks, which he said was not so much on account of the gift itself, but for the fact that he had the confidence and respect of those presenting it. He thanked them heartily for the support they had given him in the past and wished them all success.

Mr. F. J. Krumling has been appointed successor to Mr. Harper as chief operator.

Mr. C. D. Sweeney has been made day wire chief succeeding Mr. Krumling.

Mr. G. E. Crapse takes Mr. Sweeney's place as all-night chief.

Arrivals: H. M. Addleman, from Norwalk, O.; J. A. McKevitt, Canton, O.; W. L. Mounce, South Bend, Ind., and S. C. Stout, Postal, Toledo, O.

Telegraphers Organizing.

"The commercial telegraphers of the United States and Canada are now being organized," reports a high official of the Order of Railway Telegraphers. "This move was decided on at St. Louis last year at our annual meeting. We have the money to carry on the work of organizing the commercial operators and are preparing to spend it.

Our organizers are working in conjunction with the organizers of the American Federation of Labor. In forty-two cities of this country on June 22, there were meetings of commercial operators for the purpose of organizing the men into locals in those cities. Chicago was the first to get together a sufficient number for a local for the size of the city. The roll of membership at the outset shows 373. There is no corporation powerful enough to keep them out."

The officers elected were as follows:

President—I. J. McDonald of The Associated Press; Vice President—Dan Minnehan of Sydney Love & Co., brokers; Recording Secretary—William Peach of Milmine, Bodman & Co., brokers; Financial Secretary—William T. Plummer; Treasurer—Jerry Cooke of Scripps-McRae league.

Since these elections were made, Messrs. McDonald and Minnehan have been discharged from employment in consequence of their activity in prosecuting the organization work. They are now giving their entire attention to perfecting organization among the fraternity.

Over 200 operators who are employed during the day in broker offices and are engaged by the commercial companies at night in Chicago, are being persuaded to relinquish their night duties so as to compel the telegraph companies to hire other men to fill their places. The proposition was accepted by the men as a fair one, as they are beginning to realize that no operator should hold two positions.

The movement elsewhere has apparently not grown to any extent. In the East, where the uneasiness first became apparent, little or nothing in the work of organizing has so far been accomplished, the repeated assurances of the officials of the Western Union Telegraph Company that it was never their intention to antagonize the operators, seems to have set at rest the disquiet so apparent several weeks ago. The raising of salaries in numerous instances in many of the cities in the Eastern Division of the Western Union Telegraph Company, has also had its effect in re-issuing the operators.

In Boston it was reported under date of July 14 that some of the Western Union operators at that point were somewhat uneasy. It appears that the new management had ordered a number of the extra men placed on the regular force. It was alleged that these men for sometime past had been filling regular positions at the extra pay rate, namely, seven hours per day, so that the men who were fortunate enough to be known as the extra force, received more money than the regular men who did precisely the same work. It is asserted that this is the only ground for the reports that had gained circulation that the hours of service had been lengthened and the pay of the operators reduced. The force is talking of organizing at any early date.

It is reported that a number of locals are being established at different points. The organization at Milwaukee has elected James W. O'Brien, president; E. H. Dundon, secretary, and W. P. Walsh, treasurer.

The Cable.

Mr. Arthur Dearlove, of the firm of Clark, Ford & Taylor, consulting engineers to the Pacific Cable Board, of London, Eng., was in New York last week en route to England. Mr. Dearlove has been testing the new Pacific Cable at Norfolk Island, in the interest of the Pacific Cable Board.

The cable steamer *Colonia* sailed for London, Eng., on July 11, with the section of the Pacific cable to connect British Columbia with Fanning Island. This is the last section of the all-British cable to be laid, and it is expected that the work will be finished by October next.

An important meeting was held at the Navy Department on June 30, at which Secretary Moody, Rear Admiral Bradford, chief of the Bureau of Equipment, and Senator Perkins, of California, a member of the Committee on Naval Affairs, were present. These gentlemen had before them a proposition of the Commercial Cable Company, by which the company would agree to finish its work of laying a cable across the Pacific Ocean a year earlier than was contemplated, and give this Government the benefit of reduced rates in exchange for the information developed in the surveys made by the United States steamer *Nero* in 1899 for a practical submarine cable route across the ocean. The proposition was discussed at some length and the matter was referred to the Attorney-General. He probably will report favorably on the company's offer at an early date.

What the Police Telegraph Reports in New York.

That the police telegraph holds an important place in the daily business of that department in a great city like New York is shown in the following recapitulation of the work done during a recent term of twenty-four hours:

Three hundred and sixty records were received, one hundred of them between the hours of 8 and 11 o'clock at night; fifty-four pages of the blotter in the bureau were required to record them. There were one hundred and twenty-two calls for ambulances, thirty-eight accidents were reported, and six assaults; there were sixty-four fires. Twenty-two cases were reported to the coroners for investigation, including sudden deaths. There were sixty-eight calls from citizens for the police; fourteen sick cases and twenty-six cases of people getting shot.

"A B C of Electrical Experiments," by Prof. W. J. Clark, has just been published. As the initial letters of the title indicate this is an ele-

mentary book adapted to the needs of beginners and students. It is written in simple language, free from all technical terms, has 146 illustrations and gives plain instructions for the making of batteries, magnets, electric bells, induction coils, X-rays, dynamos, motors, static machines, and the telegraph, telephone and wireless telegraphy, the latter written from an American standpoint. As any student can procure for himself the materials mentioned therein and can make for himself the instruments, or work out any of the experiments given in this book, its value will be apparent. The price is \$1 and it will be sent post paid upon receipt of this amount. Address orders to J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

Mr. J. G. McNerny, of the Western Union Telegraph Company, Buffalo, N. Y., after carefully reading the "Pocket Edition of Diagrams and Complete Information for Telegraph Engineers and Students," by Willis H. Jones, just published by TELEGRAPH AGE, says he is "convinced it contains all that its name implies, and is a valuable pocket companion."

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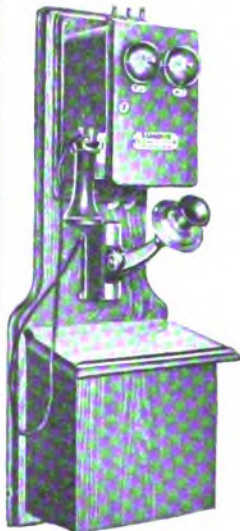
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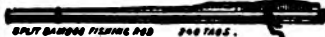
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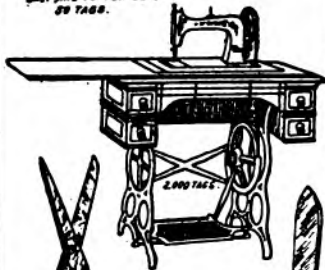
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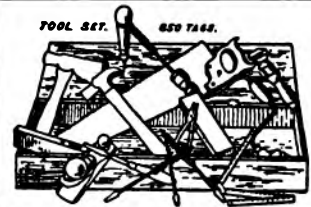
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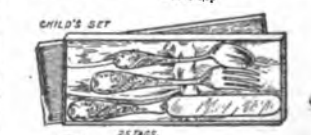
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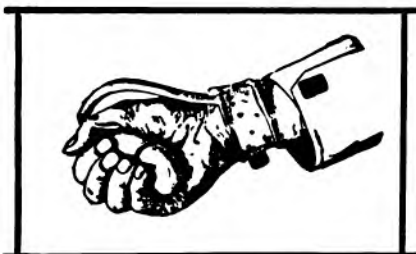


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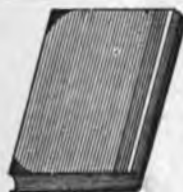
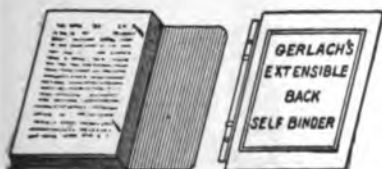
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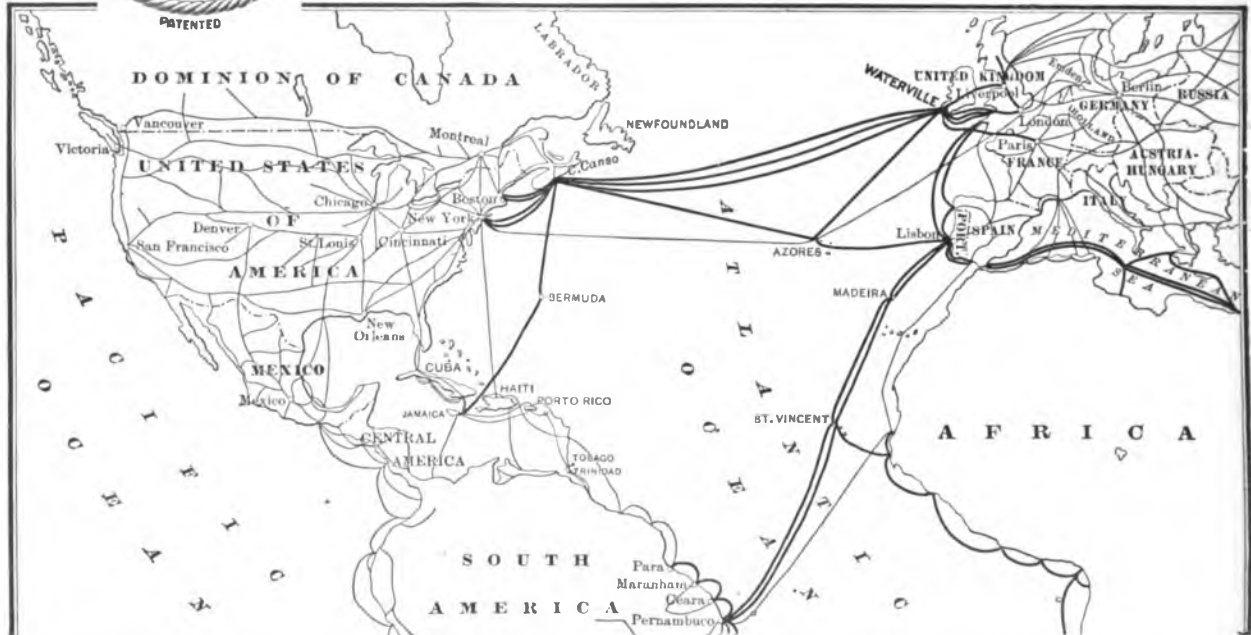
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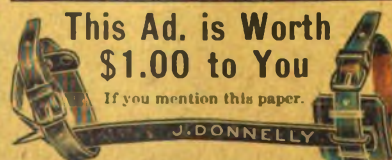
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