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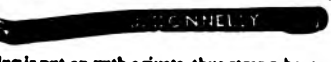
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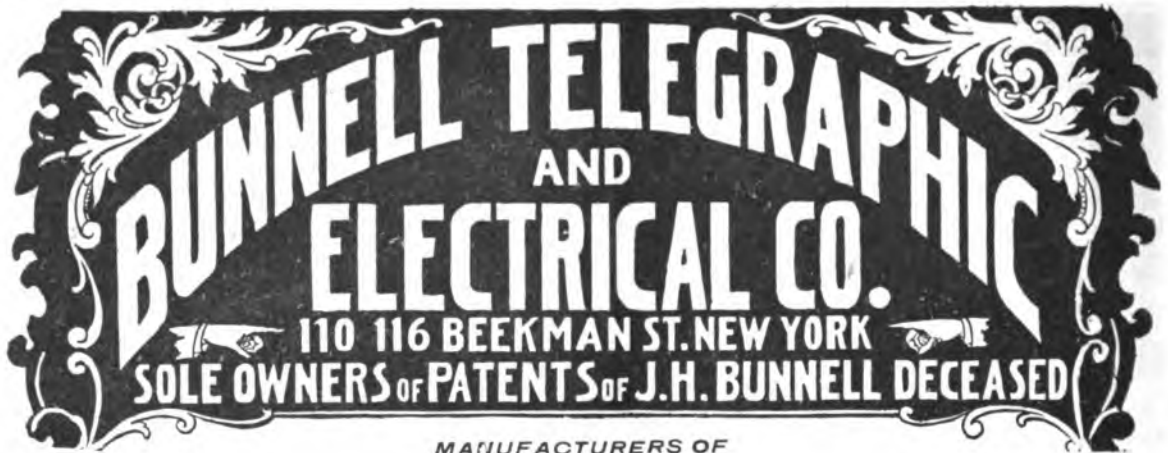
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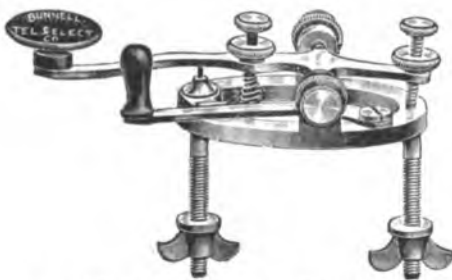


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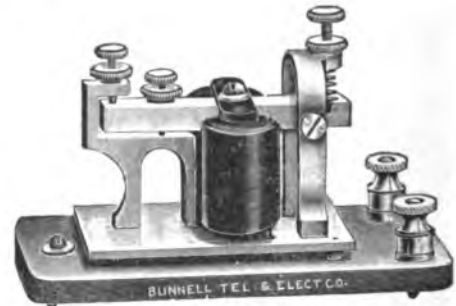
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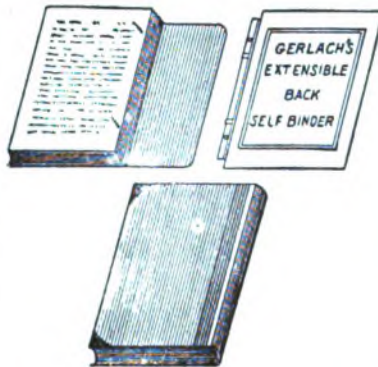
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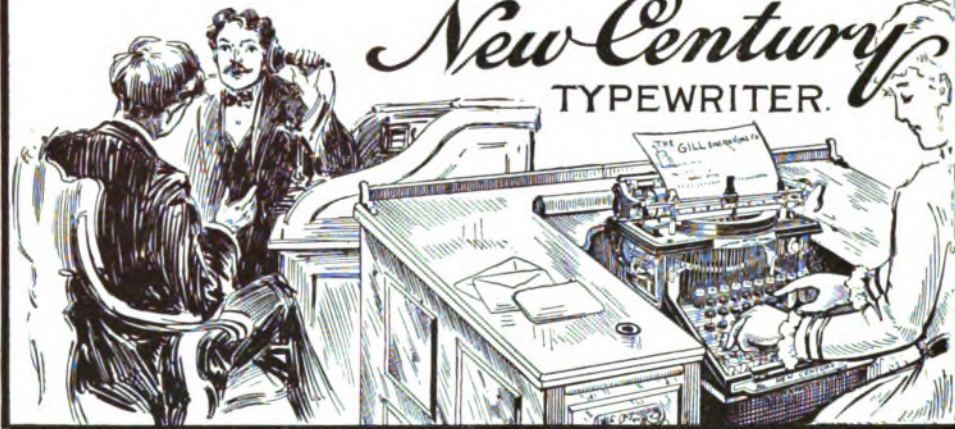
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THE TELEGRAPH AGE.

No. 9.

NEW YORK, MAY 1, 1901.

VOL. XXIV.

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SOME POINTS ON ELECTRICITY.

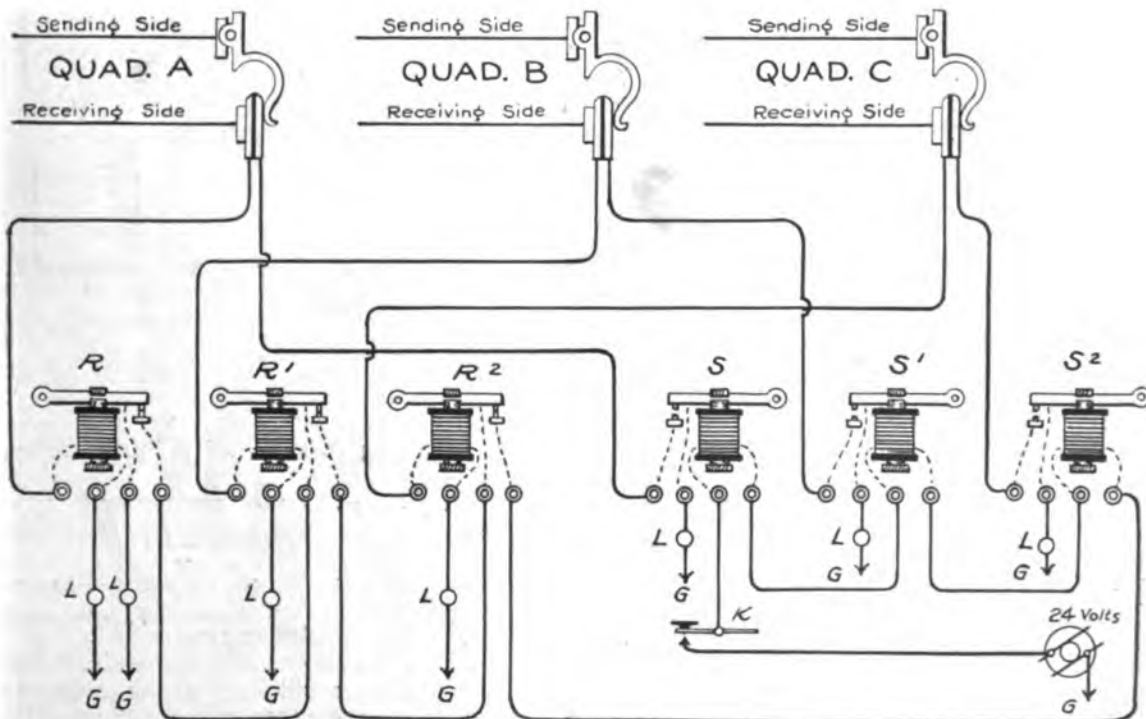
BY WILLIS H. JONES.

Mr. James B. Dillon, traffic chief of the Louisville, Ky., Western Union Telegraph office, contributes the following for the benefit of the readers of TELEGRAPH AGE:

make it plainer. The idea is to hitch up three or more quadruplexes or duplexes (the limit being reached by Ohms law only) so all can hear everything that is sent by any one on the circuit. Of course it acts as if all were single line wires.

"The sending circuit is from key *K* through magnets of repeating sounders *S*, *S*¹ and *S*², through the contact points of repeating sounders *R*, *R*¹ and *R*², to lamp and ground at points of *R*². The manipulation of *K* will actuate all quadruplex transmitters, as it will be seen they are in circuit with contact points of repeating sounders *S*, *S*¹ and *S*². Should any one desire to break, the opening of any of the quad keys demagnetizes all magnets in group *S*, *S*¹ and *S*², as they respond to opening and closing of contact points of group *R*, *R*¹ and *R*². Such a combination, I think, will prove very useful where combination specials or bulletin service is desired. Repeating sounders *R*, *R*¹ and *R*² should be equipped with bridging switches at the contact points so that those not in use may be closed at such points by the bridging device."

While Mr. Dillon's idea of controlling the sending apparatus of all quadruplexes in circuit from one key is not new by any means, the ingenious manner in which he attains that end, as shown in the accompanying diagram, makes the latter an instructive contribution for those who delight in studying the possible wire connections of telegraph apparatus.



"The accompanying diagram is so simple that it really explains itself. However, a few words will

Some time ago this journal printed a contribution from a correspondent showing that in some

of the Postal Cable-Telegraph Company's offices they accomplished practically the same thing by inserting an extra key in a common ground wire for the sending apparatus. The opening of this key of course demagnetizes each transmitter, which closes when contact is again made.

Mr. J. C. Langley, of the Dallas, Texas, Western Union office, sends the following relative to another repeating device.

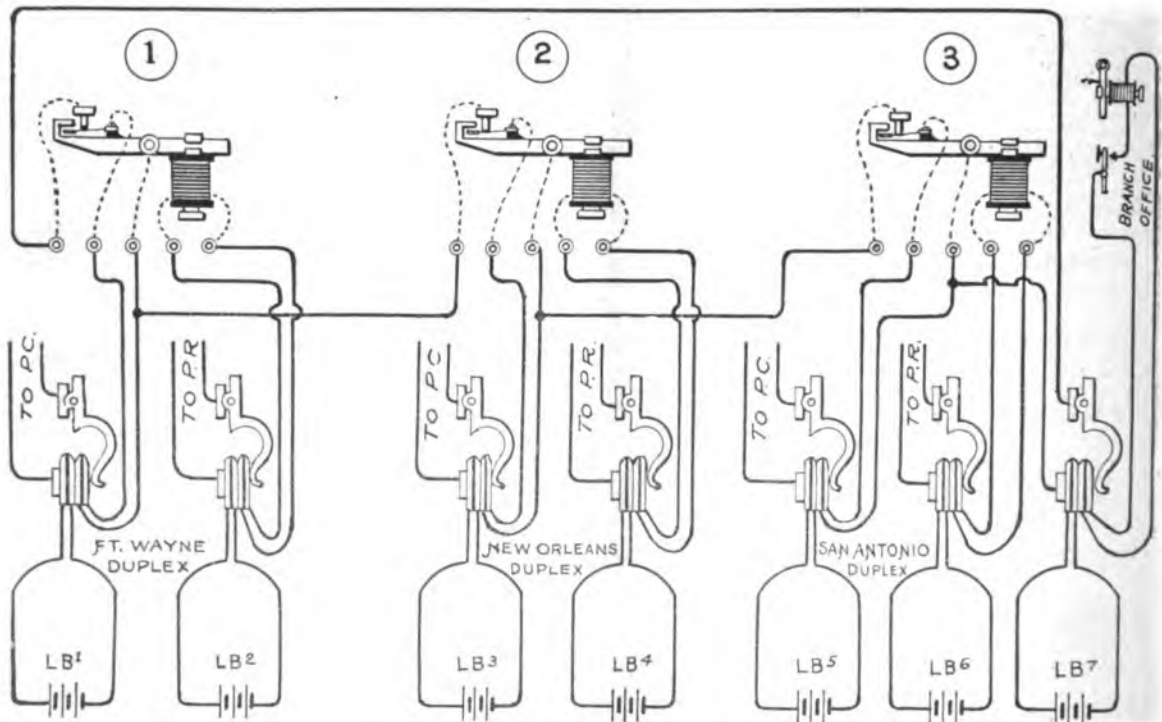
"Herewith is a diagram of our race circuit repeaters, showing details.

"In practice, while we use five or six sets, this diagram is cut down to three because that number will show the principle, and in consideration for the artistic sensibilities of anyone who may see it and consequently demand that I do as little of that

Orleans—the opening of that key would open the local contact points of the duplex at Dallas, break the circuit of L. B. No. 4, release the armature of set No. 2 and open all the pole-changers at the tongue except that on the New Orleans duplex, which would be held closed by the circuit of L. B., No. 3 being maintained through the tongue, armature and third post of set No. 2, thus keeping the polar relay at New Orleans closed. Opening the key at the local pool-room will, of course, open all the pole-changers.

"Three point switches are inserted at convenient places for cutting out any particular set when desired.

"We use two gangs, connecting them together when necessary by a double-ended double-conductor cord, inserting one wedge in the pool-room



kind of work as is consistent with a clear exposition of the apparatus.

"This arrangement was adopted in order to meet the wishes of the pool-room men, who desired that each room on the circuit might hear every letter on it and be able to break and communicate with each other as well as with the sending office. With all keys closed and the circuit at rest, it is easy to see that all the pole-changer locals and the local room loop are in one circuit.

"Beginning at the local room, it traces through the top of the jack to the first post of set No. 1, thence through the tongue to post No. 2, thence through shunt wire to post one of set 2, and in like manner through set No. 3 to back of pool-room jack, through local battery and to starting point, all the local batteries connected with the pole-changers being in the circuit.

"Should one point desire to send—say New

jack of one gang and the other in the pool-room jack of the other gang.

"When necessary to put a single wire in the circuit, which sometimes happens, we insert the wedge connected with the magnets of a set, in the jack leading to the local points of relay in a half Milliken set, and the wedge connected with points, in jack leading to transmitter local of the half set."

(To be continued.)

NEW SOURCE OF WIRE TROUBLE.—Train Dispatcher Wilson, of the Kanawka and Michigan railway, could not raise any operator beyond Buffalo, W. Va., one afternoon lately, and was holding all trains until he could discover the cause. Finally the Buffalo operator was sent out to trace the obstruction. About a mile below Buffalo he came across a man who had thrown another wire over the telegraph wires, thus grounding them. He said he was taking "lectric treatment for rheumatiz."

Business Notices.

As there will be a great demand for lodging rooms by visitors to the Pan-American Exposition, at Buffalo, N. Y., which the hotels may be unable to supply, we wish to state that desirable private rooms, with or without board, may be obtained for any period during the fair by addressing P. O. Box 708, that city. Many no doubt will be glad to avail themselves of this opportunity of securing in advance adequate accommodations which later may be difficult to obtain. An advertisement offering to secure the accommodations appears elsewhere in this issue. The gentleman inserting the advertisement is a Buffalo telegrapher of high standing.

The recent fire in the factory of J. H. Bunnell & Co., the well known manufacturers of telegraphic instruments and other electrical appliances, while causing that firm considerable trouble in its ability to readily fill orders, was not altogether an un-mixed evil, for " 'tis an ill wind," etc. With characteristic energy this enterprising firm has not only promptly fitted up a new and more extensive factory, thus obtaining considerable extra manufacturing space, but has equipped it throughout with the finest of modern machinery, so that their facilities for future work are not only measurably increased, but their ability to turn out even better work than heretofore is made possible. The firm announce that their No. 18 catalogue is ready for delivery and will be cheerfully mailed to any one upon application. Attention is called to their new advertisement on advertising page three, of this issue.

Recent Telegraph Patents.

A patent for a system of telegraphy has been awarded to F. Bedell, of Ithaca, N. Y.

William A. Hudson, of Washington, D. C., has received a patent for a telegraph sounder.

A patent for a telegraph system has been issued to Ambrose S. Bissell, of New York City. In this system a heating circuit is provided to burn the dots and dashes in the tape.

Donald Murray, of New York, has been granted a patent for improvements in his system of telegraphy, which he has assigned to the Postal Telegraph-Cable Company, New York.

Railroad Telegraph Superintendents.

The Railroad Telegraph Superintendents will meet in annual convention at Buffalo, N. Y., on Wednesday, Thursday and Friday, June 19-20-21.

General Superintendent T. E. Clarke, of the Delaware, Lackawanna and Western Railroad Company, an old telegrapher, has had his private car equipped with a telephone. When the train stops at any of the large stations along the road the operator, by simply "plugging in," places the car in communication with the long distance telephone systems of the road.

You can't afford to be without TELEGRAPH AGE.

Miscellaneous Items.

On Sunday, April 28, the Central Cable office was moved from No. 16 Broad street to No. 46 Broad street, New York.

The Commercial Cable Company's cable steamer Mackay-Bennett was seen in the harbor of New York a few days since on a cable-repairing mission. She proceeded to Halifax, N. S., on April 25.

Miss Jennie V. Fenton, for many years manager of the Western Union Telegraph office at South Bend, Ind., has been relieved by Mr. F. S. Foster, late manager of the Flint, Mich., office.

The Western Union cable boat, "Western Union," on April 18 laid a four-pair telephone cable from Governor's Island to the Barge Office landing at the Battery, New York harbor. The cable was manufactured by W. R. Brixey, and is owned by the Government.

Mr. James B. Dillon, of Louisville, Ky., in renewing his subscription says:

"\$1.50 is a small amount of cash

"For the TELEGRAPH AGE, which is first class;

"So enroll me anew, 'tis my eleventh year,

"Hail! TELEGRAPH AGE, you're without a peer."

A testimonial embodying in a preamble and resolutions an expression of affectionate regard for the worth and high character of the late Edwin Holmes, the founder and president for many years of the Holmes Electric Protective Company, of New York, were lately adopted by the officers of that company.

The New York Stock Exchange removed to its temporary quarters in the Produce Exchange Building on April 27. All the telegraph and cable companies had to establish quarters in spaces allotted to these various interests. The Stock Exchange has a telegraph plant of its own, which had to be reconstructed, and which was successfully accomplished under the supervision of Mr. R. L. Bamford, superintendent of telegraph. The Western Union Telegraph Company, The Postal Telegraph-Cable Company, The Commercial Cable Company, The Anglo-American Telegraph Company and The French Cable Company have comfortable quarters. These quarters are only temporary, however, and will be vacated within a year, when it is expected the new Stock Exchange structure will be completed.

Telegraphers Elect Officers.

The Telegraphers' Benevolent Association of the United Railroads of New Jersey and the West Jersey Railroad at their twenty-first annual meeting, held recently, elected the following officers: William Ettenger, president; William H. Wilmot, vice-president; William H. Clarke, secretary and treasurer; R. M. Patterson, trustee.

The first annual ball of the Greenpoint (Brooklyn, N. Y.) division of the Order of Railroad Telegraphers, given on Tuesday evening, April 16, was numerously attended and proved to be a very enjoyable affair.

Resignations and Appointments.

Mr. George L. Rawden has been appointed assistant night chief of the Postal Telegraph-Cable Company's office at Cleveland, O., vice F. E. Rudenauer, resigned.

Mr. H. S. Masters, who has been manager of the Livingston, Mont., Western Union office for the past seven years, has resigned to accept the managership of the Postal Telegraph-Cable Company's office at Helena, Mont.

Mr. R. H. Miller, who has been an operator at the Cotton Exchange office of the Postal Telegraph Company, Savannah, Ga., for the past eight years, has resigned to accept a position with the Nickel Plate Railroad at Cleveland, O., his former home.

Mr. Walter W. Browne has been transferred from the position of manager of the Western Union Telegraph Company at Hamilton, Ohio, to the managership of the same interests at Dayton, Ohio. His successor at Hamilton is Mr. E. D. Keyes, late manager of the Xenia office.

Mr. F. E. Rudenauer has resigned his position as assistant night chief of the Postal Telegraph-Cable Company office, Cleveland, O., to accept a position as chief operator for Lamprecht Bros. & Co., bankers of that city. The telegraph force at the Messrs. Lamprechts' office consists of Mr. Rudenauer, T. J. Duey, E. C. Monroe and C. C. Daugherty.

New York Visitors.

Mr. J. W. Kates, general superintendent Postal Telegraph-Cable Company, Richmond, Va.

Mr. C. A. Darlton, superintendent of telegraph of the Southern Railway Company, Washington, D. C.

Mr. W. S. Logue, of Chicago, general sales agent of the Edison Phonoplex Company, of New York.

Mr. W. J. Fraser, superintendent Direct United States Cable Company, of Boston, Mass., and Rye Beach, N. H.

Col. R. C. Clowry, vice-president and general manager of the Western Union Telegraph Company, Chicago, Ill., accompanied by his secretary, Mr. F. J. Sherrer.

Mr. S. A. Duncan, assistant general superintendent of the Postal Telegraph-Cable Company, Atlanta, Ga., who was on his way home from a trip to Jamaica, West Indies.

The Magnetic Club Dinner.

The dinner of the Magnetic Club given at the St. Denis Hotel, New York, on the evening of Thursday, April 25, brought together many well known members of the telegraph fraternity notwithstanding the unfavorable weather, and was a thoroughly enjoyable affair. The tables presented an attractive appearance when the seventy-three members and guests sat down, and a general spirit of good cheer prevailed, for it was essentially a gathering of old friends.

After coffee was served, President Francis W. Jones announced that no list of speakers had been

prepared, but that any short impromptu speeches would be gladly listened to. Interspersed with a fine musical, vocal and instrumental, and monologue entertainment furnished by the entertainment committee, the meeting was addressed by Col. A. B. de Frece, Chas. P. Bruch, C. A. Darlton, L. B. Foley, M. J. O'Leary, W. C. Burton and others, and a very enjoyable and pleasant evening was spent until the call of Auld Lang Syne by the president.

Among those present were: C. A. Darlton, Washington, D. C.; W. S. Logue, Chicago, Ill.; A. B. Joslyn, H. S. Garwood, W. B. Van Size, Donald Murray, H. W. Sauer, Col. A. B. de Frece, J. Costelloe, J. Mackenzie, J. S. Bennett, W. Conover, W. S. Hallet, Dr. L. R. Hallock, F. Pierce, C. F. Pierce, P. Daniels, J. F. Ahearn, W. J. Carroll, C. Shirley, J. F. Skirrow, E. S. Butterfield, F. W. Jones, C. R. Mears, J. W. Connolly, D. J. Ludwig, J. J. Ganter, W. Heelan, J. J. Moore, W. J. Austin, George H. Usher, A. H. Brown, D. J. Brinsley, W. J. Mundell, M. J. O'Leary, H. G. Pierson, H. Onslow, H. R. Teepe, R. J. Marrin, Daniel Shaugnessy, T. Brennan, William Larkin, J. McParlan, J. H. Robinson, L. B. Foley, George E. Harding, M. H. Kerner, E. G. Willyoung, E. B. Baker, New Haven, Conn.; M. R. Durham, John C. Crabb, George A. French, J. B. Sabine, W. H. Baker, Thomas A. Plunkett, W. H. McCormack, M. R. Cockey, C. P. Bruch, R. J. Murphy, G. F. Fagan, J. F. Shorey, A. P. Eckert, George F. Porter, A. M. Bartow, T. A. Brooks, R. Fagan, F. D. Murphy and J. H. Brown.

Cost of Maintenance of the British Telegraphs.

A well known Englishman now visiting in America, recently expressed himself very forcibly concerning the British Postal Telegraph service, the excellencies and success of which is sometimes held up in this country for an example. He said:

"Its success from a financial and remunerative standpoint will be better appreciated by the American public when it is digested with the cold fact that our system is operated at a loss approximating £550,000, or about \$2,750,000, per annum, with no signs of decrease, but evidences of increase, and that the government has lost over £7,500,000, or about \$37,500,000, in the operation of the system. If the British government can lose this large maximum sum in a small, compact territory, thickly populated, what the United States government would lose would be a matter of interesting conjecture. Personally, I think centralization of power in the government by the 'control' of everything is bad, and would appear to be against what Americans define as their 'institutions.'"

RACE TRACK WAR.—It has been publicly announced that a war will at once be begun by the three racing associations in New York against the pool rooms. They will prevent the result of races being transmitted by telegraph, and thus endeavor to close all of the pool rooms and so force the betting public to visit the track if it wishes to make wagers on the race. This war promises to be a bitter one.

Correspondence.

ONLY MORSE CHARACTERS SHOULD BE SENT.

Editor TELEGRAPH AGE:

Referring to the article on "6 Pik," in your issue of the 1st of February last, reminds me of working with Chicago one night not long since. The operator at the Chicago end had all kinds of combinations, but the letter "P" and the figures "8," "4" and "6" especially were always followed with a string of unnecessary dots numbering anywhere between 8 to 15. At the rate he was sending it certainly made things uncomfortable, and even tended to make me nervous. In transmitting a group of figures, namely "51897," it reached me as "510697," and when I repeated back the latter group he did not even detect the error, which proves beyond a doubt that an operator who is unconscious of errors in his own transmission, cannot have a safe ear for transmission.

The habit is becoming a regular nuisance, especially on the main wires, where the receiver is worried from day to day over these combinations, which must be a great strain upon his mental faculties. The only suggestive remedy would be for all the chiefs to place a notice on each table, informing the operators that only "Morse" characters are to be transmitted, etc. I think this would have the desired effect.

Yours truly, Y. Z.

Montreal, Que., April 20, 1901.

A Hawaiian Cable Romance.

Cæsar Celso Moreno, for years a familiar character in Washington, has just died there from a stroke of paralysis. Moreno had a picturesque and adventurous career, says the *Electrical World* and *Engineer*. He was a native of Italy, saw service in the Crimean War, and while in Sumatra was instrumental in a movement for inciting the natives to revolt against Holland. Later he was sent to Tonquin by the French Government in some official capacity, and thence drifted to China, where he organized the first steamship company under the Chinese flag. Shortly after the Civil War he landed at San Francisco and was successful in securing the enactment of the Moreno laws for the protection of coast fisheries. In 1872 he organized a trans-pacific cable company, in which Leland Stanford was interested, and finally a charter was obtained from Congress for constructing a cable estimated to cost \$10,000,000.

Shortly thereafter Moreno again went to the Orient and subsequently to the Sandwich Islands, where he gained the confidence of King Kalakaua. The latter, angered at the refusals of the Cabinet to approve a loan of \$1,000,000 by the Hawaiian Government for the building of the proposed cable, dismissed the members and selected four new councillors, Moreno being designated as Prime Minister. Moreno carried things with a high hand, and after five days of power was forced to give up the position. He was still a favorite with the King, however, and the latter secretly commissioned him as Minister to the United States and every court in Europe, but these commissions were soon revoked.

Publications.

"PHILLIPS' CODE," by Walter P. Phillips, 9th edition, 69 pages. This unique and efficient guide for the transmission of press reports still maintains its great popularity; bound in flexible leather; price, \$1.

"THE QUADRUPLEX," by Wm. Maver, Jr., and Minor M. Davis, 128 pages, 63 diagrams and other illustrations; treats of the technical side of telegraphy in a manner at once simple, comprehensive and easily understood; bound in cloth; price, \$1.50.

"LIGHTNING FLASHES AND ELECTRIC DASHES," 160 pages, illustrated. An original and sparkling collection of telegraph stories, quaintly descriptive of scenes and incidents that a telegrapher will appreciate and heartily enjoy; bound in cloth; price, \$1, reduced from \$1.50.

"AMERICAN TELEGRAPHY," by William Maver, Jr., enlarged and improved; 600 pages; 475 illustrations; clear, lucid and comprehensive in its treatment of the subject, the ranking work of its kind, and of high practical value to every telegrapher; bound in cloth; price, \$3.50.

"TELEGRAPHERS OF TO-DAY," by John B. Taltavall, 354 pages. This volume, of which but a few copies of the first edition now remain, presents a compendium of illustrated life sketches of over 800 well-known telegraphers who have been prominently identified with the telegraph during the past fifty years; bound in cloth; price, \$5.

"POCKET EDITION OF DIAGRAMS AND HANDBOOK FOR TELEGRAPH ENGINEERS," by Willis H. Jones, 115 pages. 54 full-page diagrams. This book places before the telegrapher a pocket edition of diagrams designed to take the place of the incomplete drawings which nearly every chief operator, lineman and student carries; bound in flexible imitation leather; price, \$1.

"THE TELEGRAPH IN AMERICA," by James D. Reid, 894 pages, illustrated. This book is of marked interest and worth, inasmuch as it contains telegraphic records of great historical value, not to be found elsewhere. There are only a limited number of volumes of this great work now available; bound in full morocco; price, \$7.

Any of the above publications will be sent on receipt of price to any point in the United States or Canada, express charges prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

T. M. B. ASSOCIATION.—Assessment No. 378 has been levied to meet the claims arising from the deaths of W. B. Blinn, at Savannah, Ga.; George W. Alley, at Greensboro, N. C.; Dean C. Clapp, at Aurora, Ind.; John Morgan, at Albany, N. Y.; Joseph H. Walton, at Boston, Mass.; Emil M. Shape, at Milwaukee, Wis.

A subscription to TELEGRAPH AGE is one of the best investments a progressive telegrapher can make; it keeps him thoroughly posted.

Twentieth Century Telegraph Key.

This is an instrument which signalizes a radical departure from present methods. Writers' cramp and telegraphers' paralysis are serious afflictions to

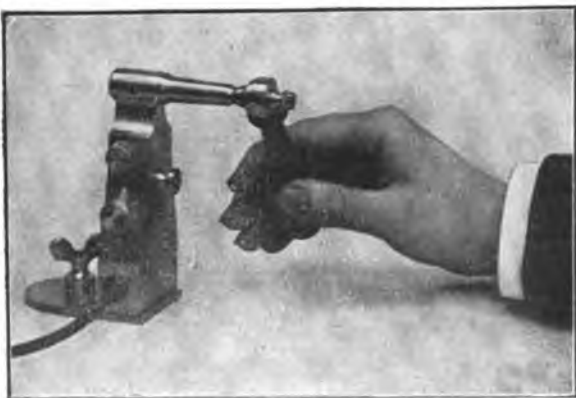


THE 20TH CENTURY TELEGRAPH KEY.

an extent that the telegraph operators of this country know too well. The introduction of the typewriter into telegraph service and its marvelous results are so well known to telegraphers that comment is unnecessary. Suffice it to say that every telegrapher knows that writer's cramp no longer has any terrors for the operator, and that the receiving operator who uses a typewriter is no longer at the mercy of the transmitting operator.

But what about telegraphers' paralysis? Is there an operator in this broad land who can not number among his acquaintances many who have "lost their grip"—whose transmission of Morse characters is such that it is torture to copy from them, and to whom transmission is agony. Go into any large telegraph office and note the effort of those afflicted to transmit with various parts of the hand or wrist, or with the left hand. No argument is necessary to show the enormous prevalence of this affliction.

Even the application forms of the telegraph com-



THE FAVORITE POSITION.

panies to-day contain the query, "Are you afflicted with telegraphers' paralysis?" and those so afflicted are seriously handicapped, in some places entirely disbarred from employment. Nor is any operator "immune" from this dread visitor. The brilliant

operator of to-day, with a wonderful record for transmission, is the applicant for a berth on "receiving sides only" to-morrow. Why all this? What causes this paralysis that destroys an operator's usefulness when he should be at his best?

Let us go back a few years. With the invention of telegraphy a "key" was provided, its purpose being to open and close a circuit. Now, you can do that with the two ends of the wire of the circuit, and the key of common use to-day is practically those two ends with a rubber knob attached to one of them so that the opening and closing may be done without touching the wire. It will be noticed that this knob is made in the shape of a flat topped button, as though the intention was to tap it with one finger; in fact this was the manner in which its use was originally intended. But modern speed makes it necessary to grasp this knob in order to transmit, thus necessitating a cramped position of the fingers. Numerous devices of rubber covers and the like to make this grasp easier have failed to afford relief. Observe the effect upon the nerves and muscles when this key is operated. A little contraction of the muscles



POSITION FOR SITTING UPRIGHT IN CHAIR.

of the wrist downward, with a quick return, makes a dot or dash, requiring two muscular contractions to a signal. How simple, you say, but let us figure a little. The Morse signals average three to the letter, that is six muscular contractions per letter, which at five letters to the word makes thirty contractions per word, and at twenty-five words per minute produces a total of seven hundred and fifty muscular contractions per minute. With half of a nine hour day put in on the sending side this means 202,500 of these nervous pulsations per day of ordinary work, all upon one set of nerves and muscles in the wrist. Is it any wonder that they become paralyzed? The marvel is that they stand it as long as they do without breaking down. It is not strange in view of these facts that many press operators, whose work means twice or thrice the amount quoted above, place two or more keys in various positions on their tables in the endeavor to shift the strain even in such a slight degree as this affords.

The instrument here introduced is the result of the study of years of the conditions leading up to this paralysis, and is offered as a relief to oper-

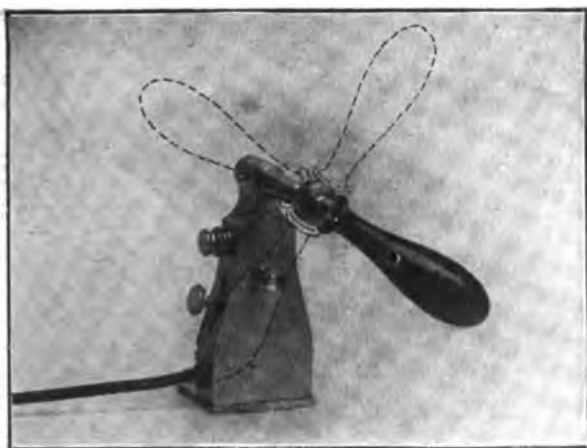
ators who are already victims, and as a preventative to those who are not. Its construction is, as may be readily seen, a radical departure from ordinary keys, and it will be noticed that there is no knob that the tired fingers must grasp. A handle that may be grasped by the whole hand or operated by the touch of any finger or part of the hand,



KEY IN POSITION FOR LEFT-HAND TRANSMISSION.

or even arm, is provided. It is unnecessary to retain a firm hold upon this handle, and the fingers may be shifted as desired during transmission, thus affording great relief. The handle itself may be turned completely around at will, while transmitting, so that any desired position may be secured instantly. Whenever the slightest strain is felt, a change can therefore be made, affording instant relief.

The key as a whole can be completely turned around upon its base, affording another entire set of changes of position, in such manner that it may be operated by either hand, or permitting a



SHOWING RANGE OF HANDLE FOR VARIOUS POSITIONS.

change of the position of the operator in his seat. Transmission may also be conveniently effected while standing, by an upward twist of the handle, and those who use a key while standing will find this instrument a revelation in comfort.

It will be noticed that this key brings into play various sets of nerves and muscles, and in many

of its positions the operator will find, at first use, a muscular feeling akin to that when first learning to send, or when learning to ride a bicycle, caused by the use of muscles that he "never knew he had." This, of course, quickly wears off as these long dormant muscles become accustomed to use.

The key is also provided with a flexible spring point to prevent the jar that a solid point gives. The term "pounding brass" is no misnomer with the ordinary key. As an operator who is using the new key expresses it: "The action of this key as compared with the ordinary key, feels like the difference between the touch of velvet and sandpaper." A result of this is that a naturally light sender transmits solid signals despite himself with this key. It is confidently predicted by many that the New Century Key will work a revolution in telegraphy as great as that caused by the introduction of the typewriter.

This key is being made and sold by Foote, Pier-son & Co., the well known manufacturers of telegraph apparatus, at 82-84 Fulton Street, New York City.

The Manila Cable.

The Eastern Extension Company, which controls the cable running from Hong Kong, China, to Manila, P. I., some time ago protested against the laying of United States cables in the Philippine Islands to connect with Manila, as under the Spanish régime the privilege was granted to the company of exclusive rights in cable construction. The permission was accompanied by but one reservation, which stated that the Spanish Government had the right to lay cables for state purposes.

The United States cable-ship Burnside is to continue laying cables for the War Department, the United States courts having decided that the cable in process of construction is for state purposes, and that the Spanish concession is not violated thereby. The grant made to the cable company was put into effect immediately prior to the Spanish-American war, and extends over a period of 40 years.

Appointments in United States Signal Corps.

The following appointments have been made in the Signal Corps, regular army, subject to a physical examination: To be captains, Edward B. Ives, Eugene O. Frecht, Gustav W. S. Stevens, Daniel J. Carr, Leonard D. Wildman, Charles McK. Saltzman, Otto A. Nesmith, Carl F. Hartmann, Benjamin F. Montgomery, Charles B. Hapburn. To be first lieutenants, Frank E. Lyman, Jr., George C. Burnell, Henry W. Stamford, Basil O. Lenoir, Charles S. Wallace, William Mitchell, Walter L. Clark, George S. Gibbs, Richard O. Rikard, Henry S. Hathaway, Alfred T. Clifton, Charles B. Rogan, Charles de F. Chandler, Mack K. Cunningham.

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.

"Farmer" Lawton Tells How Newspaper Men Get There.

"How do newspaper correspondents manage so well to gather and compile the news when sent out in the rural districts?" was asked of George E. Lawton, night manager of the Western Union office in Denver, Col., presumably ever since Professor Morse sprung his magnetic telegraph upon the public. "Old Farmer Lawton," as he is generally known, was the first agent of The Associated Press in Colorado away back when Mr. Simon-ton managed that concern. This naturally brought him in contact with the newspaper men. He can tell some very amusing anecdotes.

When the question was put to him the "old farmer" leaned back in his chair, placing one of his No. 11's against the sounder on a St. Louis wire, while with the other foot he shut off the disturbing sounder of a Chicago quadruplex. Then, in his original way, he said:

"Let's commence with recent events and drift back into the long forgotten past as we proceed. Take the burning of the negro over in the eastern part of the State a few months ago. That's where the correspondents distinguished themselves and the case proves that good newspaper men are not made in schools, but are simply born that way.

"That improvised telegraph office that Colonel Brooks opened out there on the prairie for the convenience of the press by running a few wires down to the ground from a neighboring pole lacked many conveniences usually found even in a country depot. However, the dozen or fifteen correspondents appeared right at home, although, I must admit, it was amusing to watch them sitting around on the ground with nothing but a railroad tie for a writing desk. How many business men, do you think, could have watched that poor creature burned to death inch by inch and then sit down on the ground and turn out copy that an operator could send from with no other light than a fire that was fast consuming that miserable being? Very few, I think, if any.

"Because Dave Day, of the 'Solid Muldoon' fame, would not drink, smoke or play poker, 'Gene Field and Bill Nye went at him from both sides. At first Dave amused himself when the mails brought the Denver Tribune and Laramie Boomerang to his office by pinning them on the big pine trees in his back yard and shooting them full of holes with his six-shooter, but finally Dave saw it was costing him more for powder and balls than the expense of getting out his own paper, and he was getting hot under the collar even in a nice cool place like Ouray. So he went after them through his 'Solid Muldoon' and when the battle ended several months later, we all thought Dave had a little the best of it.

"With Bill Nye it all depended upon the position of his feet and not his body. Bill, you know, had very large feet. He would saunter into his office, turn around a few times, like a house dog trying to find a soft place on the floor. Then shoving his feet with their corn attachments into a

convenient corner or under a table, Bill's brain and pen were ready for business.

"It was certainly very amusing to watch the positions taken by Eugene Field and O. H. Rothacker when they were 'serving time' on the old Denver Tribune, back in 1882. 'Gene would take off everything but his shirt and trousers. Throwing his suspenders over his shoulders, he would drop his bony frame into a very low chair. Then he would bring both his feet up on the desk on about a level with his head, and with his pad on his lap he was ready to write and entertain his friends. Rothacker would sit in the next room with his overcoat on, using a very high chair with his feet tangled up in its rounds or sticking out behind it like a dying buffalo. He would lean forward until his long black hair and sometimes his nose would blot the 25 or 30 words that he usually put on a sheet.

"Twenty years have changed all this, their positions are not now so different, poor fellows. They could not always stand that continual strain and have merely laid down their pens and are taking that long needed rest, but their words of prose, poetry and wit have left a monument to their names here on earth.

"Langdon Smith, now with the New York Journal, was once 'only' an operator, but a mighty good one was he and worked for us here in Denver twenty-five years ago. Langdon would no doubt have been pounding brass yet if a queer circumstance had not made a newspaper man of him. It came about in this way:

"He was taking night report at Fort Scott, Kan., when a horse thief was strung up in a neighboring town. Such things were so common in that section then that the item was really worthless unless a picture of the 'lynchce' could be produced. The artist on the paper where Smith was nodding away copying a report was equal to the emergency and quietly took a sketch of Langdon. Strange as it may seem, this picture did the work. It was noticed by a man living in Illinois and recognized as his son to whom the body was shipped. This was Langdon's first hit. But after coming to Denver he quit posing for dead horse thieves and wrote some very pretty poetry and reported prize fights for some of the Denver papers, and I have watched with great pride how rapidly he has climbed the golden ladder to fame.

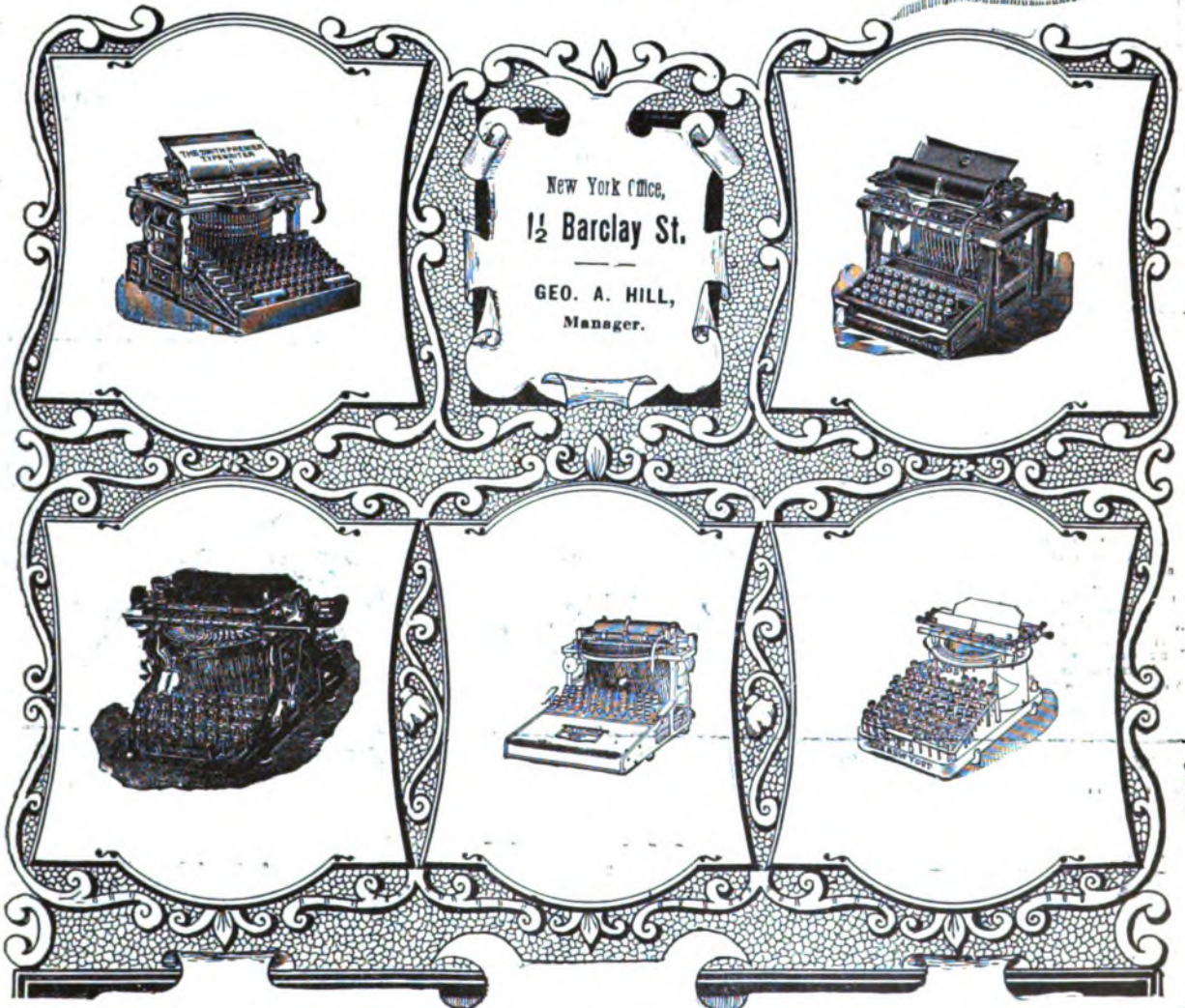
Telegraph Suit Settled Out of Court.

The telegraph suit, the action of Morrow and Clarke, of Boston, brought at Toronto, Ont., to annul the lease by which the Great Northwestern company has for seventeen years controlled and operated the lines of the Montreal Telegraph Company, has been settled out of court in favor of the defendants.

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.

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NEW YORK, May 1, 1901.

Readiness for Promotion.

The need of special preparation in order to fit an individual to acceptably fill any position in life was never more urgent than at the present time. The close competition and the economic necessities of commercial conditions compel it. There never was a time when practical intelligence counted for so much as at the threshold of this twentieth century. These stern facts, so obviously true, apply with equal force to the telegrapher as to others in different walks of life. There is no lessening of demand, for the services of competent men are everywhere required, and opportunities for business preferment are not less than in years past. It may be that the standard of excellence is rising; it is, but we live in these latter days, and must therefore measure up to and accept the conditions of our environment. Hence it is that we are called upon to adjust ourselves to newer methods and changed surroundings. And he is a wise man who cheerfully accepts the inevitable and resolutely essays to conquer for himself success in life from the starting point of to-day, not of yesterday.

But we do not propose to write a homily on this topic. The fundamental facts briefly alluded to should be clearly apparent to all who will give the subject even but cursory attention.

A point we wish to illustrate is this: Many there are who, forgetful of, or oblivious to, the requirements governing merited promotion, neglect to fit themselves for advancement, content to drift, yet vaguely hoping that a higher position will by some unexplained means luckily fall to their lot; that when such promotion is once assured then will be the time to take up the study necessary to qualify them to hold the place. Promotions due to luck rarely occur, and the utter fallacy of such shallow reasoning should be manifest even to the dullest and most careless mind.

Then, again, there are others who devote them-

selves to study and carefully prepare for promotion, and when in their judgment they are competent to fill a higher place, and it is not speedily accorded to them, and no vacancy apparently is in sight, are oftentimes vexed and despondent and ready to decry the effort as a wasted energy. An operator recently wrote us in a very discordant tone to this effect, yet shortly afterwards he found his reward in receiving an appointment to a responsible position with a telephone company, an interest analogous to the telegraph, by the way, and which is taking into its employ a large number of the better informed class of telegraphers. It was not because the telegraph company failed to appreciate the services of this individual that the telephone company was prompted to step in and secure him, but because it was known that he was a student and possessed merit as an electrician.

Whether promotion in recognition of abilities comes early or late, one thing is certain, no choice of an individual will be made from among the ranks of those who are not qualified and ready. This is an eternal truth and nothing can change it. No time is wasted or lost that is spent in acquiring a more profound depth and range of technical knowledge.

To "Revolutionize" Telegraphy.

Mr. Frank D. Pearne, who was the superintendent of construction of one of the telephone companies of Chicago, is the inventor of a printing telegraph system of the usual sort frequently heralded, to "revolutionize" telegraphy. Our readers are quite familiar with the claims of this class of inventors, and we could pass over Mr. Pearne's case with but a pitying glance were it not for the fact that he had caused to be inserted in the Chicago Tribune of a recent date a statement reflecting upon the telegraph fraternity which has no foundation whatever in fact, and which is but the hallucination of an at least peculiar mind. His words, as quoted, are as follows:

"I expect to perfect my machine and make it possible to use it in connection with the Mergenthaler typesetting machine. In a short time it will be possible to send a message from New York to Chicago and put it into type without the assistance of an operator at the receiving end or a typesetter. My invention will revolutionize the transmission of news.

"Telegraph operators have threatened to destroy my models and say that I will drive hundreds of operators out of employment, but I believe the invention will benefit operators. In will increase the speed of messages and newspapers will be able to handle more copy than under the old system."

The average telegraph operator looks upon inventions of the Pearne stripe with perfect indifference, knowing that of the thousands of the new systems devised to revolutionize telegraphy brought out during the past twenty-five years, not one of them has yet been found of commercial value. The Chicago fraternity is too busy minding its own business to waste a moment's time in

destroying models of a system, the intricacies or the possibilities of which possess no terrors for them or cause undue apprehension of coming disaster. No, Mr. Pearne, you will meet with no opposition from telegraph operators. According to your own description of your device, any telegrapher of intelligence could quickly convince you that your invention contains but little real merit, and that little is due mainly to the brain work of another gentleman. You have simply reinvented ideas that properly belong to another, and have clothed them in an extraordinarily clumsy manner.

Bogardus Heard From Once More.

"Bogy" (Henry A. Bogardus) is on his travels once again, and is headed eastward, New York being his destination. But the span is a wide one between New York and Cheyenne, the point from which he dates a letter on April 13, hence the time of his arrival in this city cannot be confidently stated. Here is the letter:

"Somebody told me they had seen in TELEGRAPH AGE something of my being on a ranch. I did not suppose you would tell all the United States. Now I tell you here, personally, that the three months I was there (as I wrote you) I prepared enough copy to keep you busy for at least six months. I had plenty of time and was anxious. I sent to Colorado Springs to get the paper and every spare moment I had I applied to the continuation of the story.

"One Sunday morning I was sitting on top of the cellar in my shirt sleeves talking with my friend and reading headings of recent papers, when all of a sudden up came one of those things they call a cyclone. I dove down into the cellar and was none too soon. My friend started for the house. The cellar door blew shut and there I was. I could hear the wild roar of the elements, but could not open the door.

"In the course of what I should judge to be thirty or forty minutes, everything seemed quiet and I touched the door and it opened as easily as at any other time. I looked out and, great goodness! I never, in all my career, saw such devastation. Forty tons of hay had been blown away, together with two horses and a cow; the kitchen of the house was gone; the house itself did not have a shingle on the roof; the stone built chicken house was distributed around, and out of seventy-three chickens and roosters we found but one rooster and two little chicks.

"With the rest of destruction went my three-months' efforts to write you something that I thought might be interesting, or entertaining, to your many readers.

"Thus it goes. Think, for a moment! Had I been on top of the ground, I would have been distributed around the United States in such small particles that you couldn't find me with Lord Ross' telescope, or a search warrant. All of which goes to prove that I am impervious to death. I will try it over again. If you choose to publish the facts of the case you may do so. Some day I will anchor."

Western Union Manager at Houghton, Mich.

Franklin C. Miller, manager of the Western Union telegraph office at Houghton, Mich., was born in Albion, that state, March 19, 1855. In 1870 he began his telegraphic career, entering the service of the Michigan Central Railroad as night operator, in his native village, remaining there until April, 1871. During the next four years he found employment respectively with the Chicago and Northwestern, Burlington, Cedar Rapids and Northern, and Chicago, Burlington and Quincy railroads at various points in Iowa. In the spring of 1875 he accepted the management of the Cedar Rapids, Iowa, office, a position he held until 1877, when he once again re-entered the railroad service as agent of the Union Pacific Railway at Hastings, Neb., and later as a train dispatcher at St. Joseph, Mo. The Lead-



MR. FRANKLIN C. MILLER,

Manager Western Union Telegraph Office, Houghton, Mich.

ville excitement in 1879 lured him to the Rocky Mountain region. In this section he worked as an operator for the Western Union, later becoming a train dispatcher for the Kansas Pacific Railroad at Denver, and for the Rio Grande Railroad at Buena Vista. The first railroad train into Leadville was run under his orders. The high altitude of the mountains of this section not being to his liking he resigned, and accepted a position with the Grand Trunk Railway as operator for the general superintendent, W. H. Pettibone. Continuing in this situation until the spring of 1881, he resigned to enter the service of the Western Union Telegraph Company in Chicago, and remained in their employ in that city and at various western and southern points until 1886, when he again returned to the railroad service as dispatcher with the International and Great Northern Railroad at Houston, Tex. Tir-

ing of the South he went back again to the commercial service, filling positions at Omaha, Ogden, San Francisco, Portland and Tacoma, until 1890, when he accepted the management of the Huron, S. Dakota, Western Union office, where his parents then resided. While there he married Miss Emma Fitch, who was formerly manager at Redfield, S. Dakota, and at Appleton, Wis. In the spring of 1891 he accepted the position of manager of the Postal Telegraph-Cable Co. at Grand Rapids, Mich. Here he remained until May, 1894, when he became an operator in the Cairo, Ill., office. From there he was transferred to a similar position at Cedar Rapids, Ia., where he remained until the fall of 1899, when he again re-entered the service of the Postal Telegraph-Cable Co. as their manager at Lincoln, Neb., resigning six months later to accept the management of the Western Union Company's interests in the copper district at Houghton, Mich., where he is stationed at this time.

An Important Decision.

The case of the Western Union Telegraph Company against The Call Publishing Company, of Lincoln, Neb., was decided, April 15, in favor of the newspaper by the United States Supreme Court, at Washington, D. C., Justice Brewer delivering the opinion. The Call is a Lincoln newspaper, and the suit was based on the allegation that the telegraph company had discriminated against it in the matter of tolls in favor of The Lincoln Journal. Judge Brewer's opinion affirmed the opinion of the Nebraska Supreme Court. It was alleged on behalf of The Call that while that paper was taxed at the rate of \$5 on one hundred words, The Journal was required to pay only \$1.50 on one hundred words. The telegraph company contended that its services to The Call company were a matter of interstate commerce, subject to regulation only by Congress, and not by State law or by common law, and that as Congress had taken no action the telegraph company could not be restrained. In handing down the opinion of the Court Justice Brewer asked:

"Can it be that the great multitude of interstate commercial transactions are freed from the burdens created by the common law, as so defined, and are subject to no rule except that to be found in the statutes of Congress? We are clearly of opinion that this cannot be so, and that the principles of the common law are operative upon all interstate commercial transactions except so far as they are modified by Congressional enactment."

Marconi's wireless telegraph company is erecting an etheric station on the mainland of England nearest Fastnet Rock. All vessels fitted with a transmitter will be able to report themselves when they are many miles beyond the rock, and thus avoid threading the passage separating it from the mainland.

The Western Union Telegraph Company of Chester, Pa., has moved into new quarters, and Manager W. Vance Compton is correspondingly happy.

The Postal's Manager at Cincinnati.

Mr. C. E. Sawtelle, manager of the Postal Telegraph-Cable Company, Cincinnati, O., is of New England origin, having been born in Maine in 1858. While yet a boy and attending school in his native place, he learned telegraphy. At the age of nineteen he obtained his first position as an operator. This was at the Philadelphia office of the Philadelphia, Wilmington and Baltimore Railroad Company. Here he remained for seven years, after which he had two years' service with the Western Union Telegraph Company in the same city. Then it was that he went west, to Ogden, Utah, where he again found employment with the Western Union for several years. By this time, having acquired some capital, he decided to abandon telegraphy and enter into the field of mercantile business,



MR. C. E. SAWTELLE,
Manager Postal Telegraph-Cable Office, Cincinnati, Ohio.

which he did in Anaconda, Mont. In this venture he was successful. While thus engaged, silver mining, then in its zenith, attracted his attention, and for a while he became interested therein. Later, however, Mr. Sawtelle returned to telegraphy, this time finding employment with the Western Union Company at Chicago. With this company he continued for but a year, when he entered the service of the Postal Telegraph-Cable Company in that city as manager of a branch office. This was in 1896. Later he was promoted to be city solicitor, afterwards being placed in charge of the wholesale district. His success in that field was marked, and when the position of manager at Cincinnati became vacant Mr. Sawtelle was selected for that post.

The articles, "Some Points on Electricity," published regularly in TELEGRAPH AGE, are filled with practical information for the up-to-date operator. Send for a sample copy.

Seeking Gutta-Percha.

A serious element in projects for the construction of submarine cables is the increasing scarcity of gutta-percha and consequently its increasing cost, for gutta-percha is an indispensable cable insulator. Between 1864 and 1890 the amount of gutta-percha exported from the restricted region where it is produced increased from 1,800 to 45,000 tons. Even as late as 1882 only 3,800 tons was exported, so that the actual increase in the nine years was 41,200 tons.

But this increase in production by no means kept pace with the increase in demand, owing to the enormous extension of cable laying in the 80s. So intimately allied are electric cable extension and gutta-percha production that in any year or any given period of years it is quite possible to measure the one by the other. But comparatively speaking cable laying in all parts of the world has so outstripped gutta-percha production that there has been a very decided increase in the cost of gutta-percha in the market. Between 1876 and 1882 the price of gutta-percha doubled. Between 1889 and 1898 it increased by one-third.

"The production of gutta percha," said George Clapperton, traffic manager of the Commercial Cable Company, "is a vital factor in making submarine cables and I have heard the comparative scarcity of gutta-percha discussed as a serious element in the cable laying of the future. But the promising view of the case is that really there is not a vast deal of deep sea cable laying in the world which remains to be done.

"The last link in the second line from England to South Africa has just been completed and the German cable to this country has been laid. The two great lines in contemplation are the American cable to Hawaii and the Philippines, and the British line from British Columbia—about 16,000 miles. Then there is another line in consideration from somewhere on the eastern coast of South Africa to Australia, about 6,000 or 7,000 miles at a rough estimate, and some 1,500 miles more in Northern Europe, making a total of from 23,000 to 25,000 miles. When these are completed the world will be pretty well immeshed with cables and it would seem that the construction would be comparatively limited for a time at least thereafter.

"Now, of course, the construction of the 16,000 miles in the Pacific alone will require a vast deal of gutta-percha. Yet I imagine the cable manufacturers know where they are going to get it, for I understand that they are already prepared to bid on the contracts. This, I suppose, would hardly be the case unless they had the gutta-percha in sight.

"There is absolutely no other substance known that will take the place of gutta-percha as a shield for the copper wire case of an electric cable. Search has been made and is still being made for something that will do as well, but it has not yet been successful. Experiments have been made with other substances, but they all failed. So the deep sea cable seems practically to be dependent upon gutta-percha.

"It is a perfect insulator and it has also the prop-

erty not only of not deteriorating by submersion in sea water, but of actually improving the longer it is submerged. Gutta-percha that has been at the bottom of the sea for years is better than when it was first laid down. It retains its remarkable plasticity and remains still as perfect in regard to its insulating qualities."

Covering the copper core of an electric cable with gutta-percha is one of the most difficult and delicate processes in cable manufacture. The slightest imperfection in the covering or a pore the fraction of a hair's breadth in size means sooner or later a broken communication involving an expensive voyage of the repair ship.

The gutta-percha, which must be of the finest quality, is laid on over the wire to a thickness of about the diameter of the wire itself. Over this is laid a coating of a paler and cheaper quality of gutta-percha, and then come the steel wires to give tensile strength. Over the whole is wrapped jute cord coated with tar."

"There is on board every cable repair ship," said another man connected with the Commercial Cable Company, "one person who, although he is a mechanic having an important part of the cable splicing to perform, is in about the position of a first cabin passenger. He is called the 'gentleman of the ship.' Until the time comes for him to get in his fine work he does no labor whatever, because it is absolutely necessary that he shall keep his hands soft and with all their delicacy of touch unimpaired.

"This is the man who lays on the gutta-percha covering over the parts of the cable after they are spliced. It is the most delicate and careful work imaginable. He has to go over the gutta percha again and again, smoothing it down with his fingers and examining it minutely as he works to see if there is the slightest imperfection or the most hair-like porosity. This has to be done with every coating as it is put on until the requisite thickness of gutta-percha is reached.

"A man whose hands were in the least hardened or calloused with rough labor never could do it, so the 'gentleman of the cable repair ship' has nothing to do between cable splicing times save eat and sleep and keep his hands manicured until they are as white and delicate as a fine lady's are supposed to be. It is an easy berth, but like most easy berths it requires a corresponding degree of skill to go with it."

In France of late years there has been a growing anxiety over the increasing scarcity of gutta-percha, for the reason that the French do not consider that cable laying will be at an end by a good deal when the world is girdled round and round about with the cables now in operation or in contemplation. A great deal of ink has been spilled in France of late years to point out the fact that all these cables are English lines touching for the most part on English soil alone. In fact, with the recent completion of the second line from England to South Africa the earth is girdled with cables which touch land nowhere save where the English flag flies.

Several French writers have recently viewed

with alarm the tremendous advantage this would give Great Britain in a war waged with one of the few nations that are approximately near England in naval strength. It would mean for one thing that whereas England would be able to keep very accurate tabs on the movements of her enemy's fleets, the whereabouts of her own would not be an easy matter for her enemy to follow. For that reason these French writers have been urging their Government to wake up and go to cable laying for the benefit of France.

Germany is already aroused to the situation and has stretched a wire, with wide ramifications, to this country. So that instead of cable laying being nearly a completed job, it may very well be that it is a job only just fairly begun.

That being the case and gutta-percha being indispensable to submarine cables, the tree which yields the precious milky gum from which gutta-percha is made has become an object of very great international interest. Commercial concerns as well as governments themselves have in the past few years been giving very close attention to the gutta-percha problem. Tropical forests have been ransacked for the tree or for one so nearly akin to it that a cable-covering product may be had from it, and there are various attempts at creating plantations of the original tree in regions where heretofore it has not grown. The forest ransacking has resulted in failure and the plantations have not yet got beyond the experimental stage.

The area in which the gutta-percha tree thrives is extremely limited. It is confined exclusively to a portion of the Malay archipelago and the Malacca peninsula. Where there is an even temperature of an average of from 80 to 82 degrees Fahrenheit and the soil is favorable the tree grows with great vigor. But with only a slight variation of these conditions and particularly where there are sudden changes of temperature, even if those changes are not extreme, it languishes and dies.

The Philippines touch closely upon the gutta-percha belt, yet the tree does not grow there indigenously and it is at least very problematical whether it can be cultivated there. It will not grow in Cochin China, likewise near the gutta-percha belt, because the average temperature is too low and the changes too sudden.

Gutta-percha trees have been transplanted to a score or more places where they have failed, although the Dutch have succeeded in establishing several plantations in their East Indian possessions which give promise of success. The experiment is by no means complete as yet.

In 1898 the French explorer Raoul collected about fifteen hundred plants gathered at the foot of the trees, where they had sprung up from seeds that had been dropped. These he put out in the conservatories at Marseilles, and after a time one-third of them were taken to the Congo and put out in plantations and another third were distributed among the planters of the West Indies and in French Guiana. In 1897 M. Jacquet, Inspector of Agriculture in Cochin China, carried away 700 plants from Singapore, 100 of which in 1899 were in a fair condition.

It remains for the future to determine what the results in the Congo, the West Indies and in French Guiana will be, although those who have studied the tree and know the very exacting nature of its demands in regard to soil and climate are by no means hopeful.—New York Sun.

The Spirit Telegram.

BY SAIDEE GRAY COX.

"I was holding down a little night office in a 'wooly' town out west," said an old operator, in response to a call for a story, in the club the other evening. It was in the Y. M. C. A. club rooms, and stories told here are supposed to be authentic.

"I was sitting in a little hut made of sun-dried bricks in western Arizona. The population of the town consisted chiefly of miners. As far as I am aware not a woman was in the community. Many of these 'soldiers of fortune' were tough specimens, holding men's lives as lightly as the pagans of old.

"I was getting pretty tired of the place, and was desirous of an order to 'move on,' but none came.

"That day, one of the prospectors who boarded at the Widow Finn's, where I also held out, paying my nice little six dollars a week for the privilege of sitting down to dried peas and soggy potatoes three times daily, came in and wanted me to celebrate with him, as he and his 'pardner,' 'Glowering Ned,' had 'struck it rich' that afternoon in an old abandoned claim, but like Bret Hart's old man Dow, they had made a strike from pure and cussed contrariness.

"I saw 'Glowering Ned' just as I started back to the 'shack,' which the railroad company, in grandiloquent terms, designated office.

"He looked about as cheerful as a second hand string of coffins, and I wondered at the coquettish goddess who played such strange tricks with man. Here was I, cheerful and needy, and here was 'Glowering Ned,' gloomy, black and discontented looking. Handsome enough fellow he was too, if he had not such a countenance of concentrated gloom. He passed me with a curt nod of the head, and I decided at once that socialists had some reason to howl for a division of wealth, if the average millionaire was as savagely unsocial as Edward Noble. Sure enough, he had a name, although I had never heard him called other than 'Glowering Ned.'

"I passed him and went into my hut to wait for messages that so rarely came. The hot hours of the long night dragged slowly away. I had thrown myself out at full length on a kind of bench or counter, along one side of the room, and had been asleep I don't know how long, when I heard a call at the keys to receive a rush message. I took it unconscious of what I was doing, for I was not yet thoroughly awake, but when I glanced at the flimsy yellow slip of paper I found these words:

"'Edward Noble, San Jacinto, Arizona. Return at once. All is forgiven. Helen Branscom Noble. 303 West Twenty-second street, New York.'

"'Humph!' I said, 'Noble, my boy, what is this?'

I hustled over to the boarding house, and pounding on the door, aroused him, and, delivering the message, waited a moment to note the effect. Had he been electrocuted he could not have looked more deathly, but the next moment I was startled by the unearthly change which succeeded his recent pallor. His face seemed transfigured by an inward light. A great joy was in his eyes, his lips smiled expansively. He was not at all offended (as I had expected) at my lingering, but grasping my hand heartily, he said:

"Thank you, old man, you have done me a good turn. She is my wife, you know. I did her a most deadly wrong"—and his voice trembled—"another woman, but she is dead. She was killed six months ago by a fall of dirt in a drift where we were excavating. She was here with me before I took Jem Mace in as a partner. She made a good looking boy and was called by the miners 'Tallow-Locks,' from her yellow hair. Poor girl, she is gone. I don't know why I am telling you all this stuff, unless it is that your eyes look kind and sympathetic." As he talked he was hastily throwing some things into a hand satchel. "None knew her sex, for she was buried quietly. I alone caring for the remains. I do not know that I ever loved her. Quite unconsciously I compromised her. She came to me in her distress and together we fled to the West. Blind fool that I was, I did not consider the mortification and agony of my wife who was an intensely proud woman. God knows that from the moment I left her I have been most unhappy. How she learned my whereabouts is a mystery to me. Thank God, old man, I can go home to my wife again," and we went out in time for him to catch the midnight train. "So," thought I, "there is an end to that chapter."

"Some time the following afternoon, a young fellow, a stranger, came into the office. 'Say,' said he, 'you didn't get a telegram for a fellow named Edward Noble, did you?' I nodded. 'Well, hand it over then, I'm the chap.'

"You?" I exclaimed in surprise.

"Yes," he replied, "I came in on the 6.30 train last evening. I've been having hard luck lately. Left home abruptly, you know, took some of mother's jewelry and a check or two. Have had such deuced bad luck that I recalled my Sunday school training and decided, like that fellow that ate husks with the swine, to return unto my only parent, and trust to her tenderness to forgive my deviltry. I wired her from a little town back here a little way, giving my address as San Jacinto."

"What is her address?" I asked.

"303 West Twenty-second street, New York."

"I told him the contents of the telegram which I had given 'Glowing Ned,' and he declared that it was from his mother, Helen Branscomb Noble.

"He immediately wired her for money, and she in return telegraphed him two hundred dollars, and I was obliged to believe that I had sent a poor, unhappy fellow, now made deliriously happy, hundreds of miles across the continent on a fool's errand. It made me quake inwardly to think of what might occur on his return, for, as I have before remarked, they held life lightly in the West at that

time. Fortunately I was removed before his return.

"Some five years later I was in Washington, D. C., somewhat improved in fortune, and seeking an interview with a prominent politician. The above episode had entirely gone from my memory, when it was forcibly brought to my mind again by a meeting with an eloquent member of the House of Representatives from one of the middle States. With a hearty slap on the shoulder, he inquired if I remembered him. Upon my reply that I did not recall him, he said:

"Old friend, don't you remember San Jacinto and Glowering Ned? Do you know," he added, "Helen declares that she did not send that telegram, and indeed she could not have done so, for she was ill with a very high fever at the time. Her physician says that she was continuously, in her delirium, sending me telegrams to return, for she forgave me freely. I think it was a spirit telegram, don't you?" I can't account for it; all I know is that this is a true story."—*Lee's Magazine.*

Pictures Sent By Wire.

Two bodies of scientific men gathered recently—one in Columbia College, New York, and the other in the Quadrangle Club, in Chicago, to witness the test of an electrical instrument which was to transmit the half-tone picture by telegraph of President Seth Low to the Chicagoians and that of President Harper to the New Yorkers.

The experiment was a complete success at the New York end, and the three thousand people, gathered in the hall on University Heights, watched the image of the features of the president of the Chicago University as it appeared in a fac-simile of the one on the transmitter one thousand miles away.

The Chicago audience, however, according to word received by telegraph, was disappointed. The instrument at that end did not record the impressions clearly, and no picture resulted, excessive induction in the transmitting wires being given as the cause of the failure.

R. H. Palmer, of Cleveland, O., operated the electrical machine transmitting the picture across 1,000 miles of wires.

Mr. Hugh Bonner, late chief of the New York Fire Department, has become associated with the Montauk Multiphase Cable Company, of 100 Broadway, New York. This automatic fire-detecting device, which so unerringly detects the presence of fire, or even of overheated conditions, has always commanded the approval of the ex-chief, and now in his retirement from the department it was a natural sequence almost that he should transfer his services to another field of fire-suppressing work.

TELEGRAPH AGE should go regularly to every one interested in the telegraph. Write for sample copy.

1901 ANNOUNCEMENT.

FOR MORE THAN EIGHTEEN YEARS TELEGRAPH AGE has represented the great telegraphic interests of this country. During this long period, so eventful in the history and development of telegraphy, this paper has endeavored faithfully to advance the welfare of every individual connected with the telegraph. How well this has been appreciated is attested by the fact that thousands of names are still on its books of those who, having drifted into other callings, never have forgotten their former telegraphic experience, or ceased to cherish the friendships and associations then formed. For telegraphers are clannish, loyal to each other, and, we are pleased to say, eminently so to their single representative paper, and which, let it be said, has ever sought to be loyal to them.

THE DEPARTMENT OF CORRESPONDENCE, so long finding expression in the familiar and chatty pages by which members of the fraternity in all parts of the country are kept constantly and pleasantly informed of all changes and transfers, business and social events, marriages and deaths, occurring within their ranks, has proved to be of abiding interest to thousands everywhere.

THE TECHNICAL ARTICLES, highly instructive in character and conveying practical and much-needed information on every phase of modern telegraphy, have won high commendation because of their intelligence and the broad scope of the subjects brought under discussion. **THEY HAVE BEEN INVALUABLE TO THE ACTIVE OPERATOR AS A PRACTICAL AID IN HIS DAILY EMPLOYMENT.** The series of articles now being contributed by Willis H. Jones, to which attention is especially requested, are alone worth more than the subscription price of the paper. Mr. Jones is a prominent New York wire chief operator. His articles explain, in simple and easily understood language, the duplex, the quadruplex (how to install and balance them), batteries, dynamo machinery, the condenser, galvanometer and electrical testing, switchboard testing, repeaters of all kinds, etc. All sorts of possible combinations that the telegrapher is asked to solve are given painstaking and careful attention.

THE GENERAL SUBJECT OF TELEGRAPHY in its many aspects, its progress and development, in this and other countries, has been so treated as to present a vast fund of information. The bound volumes of TELEGRAPH AGE have come to be regarded as works of reference. They will increase in value as time goes by.

THE PROGRESSIVE CHARACTER of the paper itself is generally recognized, and its influence and high standing in all telegraphic and allied electrical circles is freely acknowledged.

CONDUCTED BY EXPERT TELEGRAPHERS, graduates themselves from the key, their training and sympathies put them in close touch with the conditions and needs of the craft still engaged in receiving and sending the dots and dashes.

THE SUBSTANTIAL ENCOURAGEMENT received in the past has already given TELEGRAPH AGE a wide circulation. And this has steadily grown. Yet the field is constantly expanding. Considering the variety, extent and character of the important matter the paper is now offering in all of its departments, so thoroughly meeting the requirements of up-to-date telegraphic information, technical and general, this journal should be an indispensable factor, not only in every telegraph office in the United States, Canada and Mexico, including those of the railroad, the police-telegraph and fire-alarm systems, but to every individual telegrapher as well. To the up-building of this larger circulation, the accomplishment of which means as much to the subscribers as to the publisher, because affording the guarantee of a still further improved paper, we ask the active co-operation of our friends everywhere.

TELEGRAPH AGE has always sought to exert a helpful influence to the fraternity collectively, and to the telegrapher as an individual. Now in turn, when it has mapped out for its future a larger, fuller and a more broadly comprehensive course, still ever keeping in view the advancement of the telegraphers' best interests, it appeals to its friends, to the members of the craft everywhere, to render the aid which they alone can give to make this subscription effort supremely successful.

THE PERSONAL CONSIDERATION OF TELEGRAPHERS is earnestly called to this statement, and their subscription and those of their office associates are solicited. Will the reader kindly call attention to this matter? A sample copy will be sent free to any address on application.

Address, remitting by express or post-office money order, draft or check,

J. B. TALTAVALL,

THE TELEGRAPH AGE,

253 BROADWAY,

NEW YORK, U. S. A.

LETTERS FROM OUR AGENTS.

To Our Correspondents.

While we are desirous to receive from our agents letters for publication respecting their various offices and of their personnel, for all efforts of this character are appreciated, we would earnestly request that such communications be confined strictly within the limits of the subject, and not so much space be devoted to hunting and fishing items and other extraneous matter, as is frequently the case. We wish to make the department of "Letters from our Agents" an attractive one, but if we were to publish all that comes to us in the shape of irrelevant matter, of no possible interest to the general reader, it would frequently require us to surrender a number of additional pages to contain it all. The current information of any office will, if carefully chronicled, furnish a welcome digest of news that will be read with pleasure and satisfaction by thousands, and this limit should be the legitimate contents of all letters. And we wish that our correspondents would avoid the too frequent habit, at all times a bad one, of abbreviating words in writing. This is a peculiarity among telegraphers, we know, but what may be plain to the writer, and for local interpretation, is usually a mystery to the editor, and is apt to lead to error in the printed statement.

Southern Pacific Telegraph System—Oregon Division.

Dunsmuir, 323 miles north of San Francisco, Cal., is the junction of the Pacific system and the Oregon lines of the Southern Pacific Company.



MR. G. C. MORRIS,

Chief Train Dispatcher, Oregon Division Southern Pacific Railway System.

The lines in Oregon constitute two dispatching districts, with headquarters at Ashland and Portland. Mr. L. R. Fields, the most of the South-

ern Pacific Company's superintendents, is an old dispatcher.

Following the windings of the Sacramento river over Black Butte, across the Shasta valley at the foot of hoary headed Mount Shasta, over the Siskiyou mountains from California into Oregon, through the Rogue River valley and Cow Creek Cañon to Roseburg, 250 miles, constitutes the dispatching district, with headquarters at Ashland.

Mr. G. C. Morris, the chief dispatcher, who was born in Washington county, Ohio, came to Oregon with his parents, in the early seventies, and located at Salem, in that State. He was educated at the Willamette University, and during vacations acted as messenger for the Western Union Telegraph Company, where he learned telegraphy under Wm. Dumars, then manager at Salem. He entered the service of the Oregon and California Railway in 1883, and steadily advanced until he was promoted to the dispatcher's office at Portland, Ore., in 1887. When the Oregon Limited lines were leased by the Southern Pacific Company, Mr. Morris was transferred to Dundee, as chief dispatcher. On the consolidation of the Oregon lines he returned to Portland. In 1897 the Shasta division was abolished and merged into the Sacramento division and Oregon lines, Mr. Morris being appointed chief dispatcher at Ashland.

Handling traffic over the heavy mountain grades, the distribution of power, the handling of "helpers," and keeping the line open during snow storms, constitute a complex problem, which, to successfully solve, demands the highest executive ability. All of the details have been fully worked out by Mr. Morris, and the record of the heavy traffic handled over the Shasta route during the last two years of "expansion" testify to his ability.

The Ashland force is constituted as follows: C. W. Martyn, first trick; J. L. May, second trick; L. L. Muilt, third trick; E. B. Pengra, extra dispatcher and copier, and C. H. Thomas, relay operator. There are thirty-six operators employed on the district.

Major John L. May, the second trick, is an old time telegrapher, having entered the Western Union employ in Indiana, at the age of eleven years. He was agent and Western Union manager at Winnemucca, Nevada, from 1878 to 1884, and afterwards entered the service of the Southern Pacific Company.

Major May was a captain in the 2nd Oregon regiment of volunteers during the late Spanish-American war and the Philippine rebellion which followed it, and served with much credit and distinction in the Philippine Islands until his regiment was mustered out, when he again resumed his dispatcher's trick in the Southern Pacific Company's service. On the reorganization of the Oregon National Guard, he was appointed a major in the regiment.

A future issue will contain a list of the telegraphers of this division.

Mr. George Estes, of San Francisco, Cal., chairman Pacific Division, Order Railway Telegraphers, is confined to his home with a severe case of fever.

AUSTIN, TEXAS, WESTERN UNION.

Messrs. J. L. Rapp and W. B. Kerrigan, who were on the extra list here during the meeting of the Legislature, have left for St. Louis and are with the Western Union there.

Miss S. Bond, who had charge of the Capitol branch office during the legislative term, left for her home in San Antonio on the 10th inst., where she resumes charge of the Menger Hotel office.

Mr. W. S. Arnold, of this office for some months past, resigned on April 22 to go elsewhere.

Mr. John Broderick, formerly of the Western Union at Houston, is a recent arrival, and is working split trick, vice J. C. Judson, resigned.

PHILADELPHIA, PA., POSTAL.

One of the latest acquisitions to the main office staff is Miss Lillian Greiner; other more recent arrivals are the Messrs. R. B. Zeigler, H. O. Steltz, J. M. Fitzgerald and C. P. Monett.

Two important changes are announced in the American District Telegraph official circles: Mr. E. L. Fitzgerald has been appointed foreman of the construction and electric department, and Mr. Wm. E. Miley made manager of the messengers.

Shortly after returning from the task of moving the Baltimore main office, Chief Operator C. A. Stimpson went for a short rest at Old Point Comfort.

All-night-Chief Wm. J. Poppert was laid up for a few days with a heavy cold. Night Chief Wm. Baker, and Day Wire-chief Miles Dunn, filled in until Mr. Poppert's return.

Mr. Horace Holtzinger is off on an extended leave of absence with Texas as his objective point. Other departures are Messrs. W. H. Duckett and Ramsay.

A promotion from the service department to the key has been granted to Edward Burt.

Mr. Jay A. Thomas had to apply for release from the First New York by his physician's orders. One day recently, Mr. Thomas completely collapsed and couldn't telegraph a single character. The Messrs. Smith and Firman now have the bonus wire to themselves.

A new line through the berry district in Virginia, extending to Cape Charles, has been completed and opened to the public. A heavy business is anticipated during the season.

An office has been opened at Hamburg, Pa., with L. L. Francis in charge.

Cards of invitation have been sent out by Mr. and Mrs. John A. Sisk, in honor of their twentieth wedding anniversary.

Manager Howard Wright, of the Dry-Goods District office, is feeling quite satisfied at the good showing in business despite several hindering conditions.

Mrs. Ella J. Matthews, of the City Department, is off on a short vacation.

MINNEAPOLIS, MINN., N. AMN. TEL. CO.

Mr. H. A. Tuttle, our general manager, has just returned from an extended business and pleasure trip through the East and South. Manager D. G. McIntosh effectively took the helm during his absence.

J. T. McGrade died of consumption March 29, and was buried at Shakopee, Minn., April 31. The force was represented by seven or eight of the boys, and a beautiful floral emblem designating a telegraph line, with one broken wire, was sent. Mr. A. C. Kroll, split trick man, succeeds Mr. McGrade, and Mr. T. C. Coleman takes the split trick. This incidentally moves several others up a peg.

KANSAS CITY, POSTAL.

Charles G. Keeler, an operator well known in nearly every city throughout the country, and for many years, at different times, an employee of the Postal Telegraph-Cable Company at Kansas City, died on April 13, after an illness of only a few days. Mr. Keeler was a first class operator, being an exceptionally good penman, and was well liked by the force here and in many cities where he has worked for both the Western Union and Postal companies.

Mr. (familiarly known as "Buck") Keeler was taken to Shawnee, Kan., his old home, for burial. Manager Richards, Chief Operator Rommell and a delegation of operators from the office attended the funeral in a body.

John Hall of the night force has been promoted to the vacancy on the Chicago wire caused by the death of Mr. Keeler, and Ernest Kaapcke has succeeded Hall nights on the ways.

We are sorry to announce the death of Mrs. Will Emerson, wife of Manager Emerson, of the Postal at Lamar, Col. Mr. Emerson had only been married a year and the circumstances attending the death of his young wife are very distressing. He has the heartfelt sympathy of all.

CLEVELAND, OHIO, WESTERN UNION.

Henry J. Siegmiller, one of the old employees of this office, died on April 4. His remains were interred in the old East Cleveland cemetery. A cripple from early manhood, he entered the Cleveland office about eighteen years ago. Always a sufferer and heroically enduring the pain attendant upon several operations, he continued at work until a little over a year ago, when the ailment compelled him to abandon his duties and he left the key, never to return. Beautiful floral tributes from his associates marked the respect in which he was held.

LOS ANGELES, CAL., WESTERN UNION.

Business is still on the increase and regular men are doing extra work.

Mr. S. C. Stevenson, from the San Francisco Western Union office, is in the city visiting relatives. He hasn't visited the Western Union office here, however, and the presumption is he thinks the demand for men is so great that his vacation might be cut short were his presence known.

Mr. Robert Howell has left for the North.

Mr. Joseph Egan went to work the first of April.

MONTREAL, QUE., CANADIAN PACIFIC.

Mr. F. T. Jennings, chief operator, who has been granted leave of absence, has left for the Eastern townships to recuperate. It is to be hoped that

he will derive much benefit by the change and the rest which he seeks. His duties during the coming summer will be manifold, for owing to the removal of the office into the new building, and the consequent preparation therefor, will place a burden of much responsibility upon him. Mr. H. Bott is acting chief, assisted by Mr. A. Malcolm.

Arrivals: E. R. Stinson, C. M. Hodge and George A. MacBain.

Resigned: W. C. Storey, W. Homar, R. Bunch and Thomas Massey.

Navigation having opened, business has since been increasing rapidly.

PHILADELPHIA, PA., WESTERN UNION.

The new head of the delivery department and messenger service, Mr. A. J. Whittingham, a well known gentleman who was with the American District Telegraph Company for many years, is rapidly bringing this branch of the business to a state of excellence not to be surpassed anywhere.

Mr. Edward Bartholomew of The Associated Press is the proud and happy father of a daughter born recently. The Associated Press operators presented the new baby with a solid silver spoon.

Slipping on the sidewalk, J. Gould of this office fell against the sharp edge of a step and cut quite a gash in his head, necessitating several stitches and his absence from duty for a week.

President Maize's partner in the grand march at the Aid Society's social affair was Miss Clara Grimley of this office instead of Mrs. Maize (who was unable to be present), as was erroneously stated in the previous issue.

ST. LOUIS, MO., WESTERN UNION.

The latest arrivals here, are: Misses Josie Claus, Anna Bauer and Anna Murphy; Messrs. T. E. Gilbert, L. F. Lynch, Guy H. Gilbert, Robert M. Wickes, P. A. Johnson, R. B. Harrington, F. L. Ramey, Edward Hulse, Samuel H. Nolle, Howard W. Withers, G. H. Campion, L. H. Ramey, A. H. Anderson, L. T. Campbell, George Jacobs, Edward E. Wayman, John A. Kelley, Walter E. Stein, A. C. Bennett and Geo. H. Armstrong. Resigned: Miss Nellie Mansfield, Charles Lampard, and George F. Monteith.

Mr. W. B. Jones, traveling freight agent of the Monon Route, formerly superintendent of telegraph of the Cotton Belt, was a visitor April 12. He is the same congenial Jones.

Mr. J. J. Murphy is working in a Little Rock, Ark., pool-room, temporarily. Victor Schuler, another operator, is in charge of the room.

Mrs. Nettie Ward experienced quite a siege of sickness during March and April. Two successful operations were performed and she is now convalescing, at her parent's home, in Caldwell, Kansas.

Miss Mary Tynan has returned from a vacation of several weeks.

Mr. and Mrs. Henry Van Dam left here for New York, April 1.

TELEGRAPH AGE should go regularly to every one interested in the telegraph. Write for a sample copy of the May 16 issue.

CHICAGO, ILL., WESTERN UNION.

Assistant Chief Operator George Dunning, the local agent of the Telegrapher's Mutual Benefit Association, is successfully demonstrating to new members its great value, it offering manifold advantages to the telegrapher. This company is one of the strongest insurance associations in the United States. Its membership is 5,100, it has a reserve fund of \$180,000, and has paid in benefits to telegraphers about \$1,000,000.

Mr. T. B. Irish has been appointed to the Marshalltown wire.

Our beloved friend, Frank D. Riordan, died April 19, after a relapse from typhoid pneumonia. Mr. Riordan was a resident of Austin, Ill. He served in the capacity of chief clerk to Superintendent Tubbs for eight years previous to 1898, since which time he has been a member of the Chicago Board of Trade. A wife and two children survive him. Much sorrow and sympathy is expressed by all.

Visitors: Former Chief Operator O. Tracy, of Keokuk, Ia., en route to Dickinson, S. D., where he will act as repeater chief; Lily F. Paylor, of Milwaukee, Wis., who is known in this office, not only for her gilt edge work on the Chicago local, but for her warm and genial manner; H. G. Miller, manager at Stirling, Ill., and W. Scott, operator at Hinsdale, Ill., Mr. Miller being on his way to his home in Indiana, where he expects to spend a short vacation; Mrs. Ida M. Norris, of Spring Valley, Ill., who while here was the guest of Mrs. Ida E. Palmer.

Mr. Charles Willoughby, Assistant Chief Operator of the Western Union office at San Francisco, Cal., spent a few days in this city recently visiting relatives. He made a few calls at this office and at the Board of Trade to greet old friends, many of whom he had not seen since leaving this office for the Pacific Coast, some thirteen years ago. Mr. Willoughby will spend a few days at St. Louis, and a part of his time with relatives at Du Quoin, Ill., and will then go East visiting New York and Buffalo, calling again at Chicago on his return to San Francisco.

Mr. A. E. Johnson, who has had leave of absence for the past month, has returned to the office much refreshed by his vacation.

Mr. Charles F. Ireland, who has been absent on account of illness, is reported as convalescing, and expects to report for duty soon.

Paul Ende resigned recently to take a position in New York.

John McArthur, of the Cedar Rapids local, has left for Las Vegas, N. M.

BALTIMORE, MD., WESTERN UNION.

Vice President W. H. Baker and Special Agent T. E. Fleming, of New York; Superintendent C. C. Adams and Chief Operator C. A. Stimpson, of Philadelphia, officials of the Postal Telegraph-Cable Co., called on Manager Bloxham on April 20, and were shown through our new office. They expressed themselves as much pleased with our up-to-date equipment.

NEW YORK, WESTERN UNION.

Nicholas P. Moody, of this office, has recently become the father of twin boys.

Messrs. Martin Durivan and W. H. Gunning have recently returned from Florida.

Miss Nora, eldest daughter of Mr. John J. Barry, an old time telegrapher, now a school commissioner, of New York City, was married to Mr. Edward Murphy, of Richfield, Conn., at St. Augustine's Church, New York City, on Wednesday, April 17.

Mr. Walter C. Bunton, chief operator of the race department, was in Albany a few days since attending the annual meeting of the Royal Arcanum of the State of New York.

There is some discussion among the older members of the craft in this office as to the advisability of the Old Time Telegraph Association appointing a sub committee to look into the question of a home for telegraphers, which question was brought up at the last annual meeting at St. Paul, Minn., in September last. The matter is being favorably discussed in many sections of the country, and Mr. John Brant, the secretary of the Old Time Telegraphers' Association, is now being pressed to take the necessary action to bring the matter formally before the Montreal meeting in September.

All popular music at less than half price. "Utopian Waltzes," "Whirlwind March," "Ben Hur Chariot Race," "Belle of Manhattan" March and Two-Step, "When You Were Sweet Sixteen," "My Old Virginia Home," "Left On the Battlefield," "Dolly Gray," "The Sweetheart That I Loved In Boyhood Days," "Spider and Fly," 18 cents each. "Palms," "Popular Gems," "Lang's Flower Song," "Calvary," "Rusticana," 10 cents each. Pianos—all prices—sold \$1.00 per week. B. L. Brannan, 195 Broadway, New York. (Adv.)

Don't give to an agent; send for us. Repairs on typewriters expressed or sent in to shop at reduction, to operators. Second-hand machines low price. Supplies, word-counters, etc., \$2 up. Parts and attachments made. Wall & Butler, Typewriter Repairs, 57 Dey Street, New York. (Adv.)

NEW YORK, POSTAL.

Lieut. George N. McKibbin and fourteen members of the Signal Corps of Squadron A, New York National Guard, of which he is in command, accompanied by Capt. Earlinson, visited the Postal Telegraph Building on Friday evening, April 19, and spent several hours in inspecting the plant under the guidance of Mr. C. P. Bruch, assistant general manager, Mr. F. W. Jones, electrical engineer, Mr. J. F. Skirrow, assistant manager, and Mr. E. A. Coney. Practical demonstrations of the working of the quadruplex and other apparatus and of the time gained by the use of the Phillips Code were given and fully explained by Mr. Skirrow, assisted by Mr. Coney, Mr. Price and Mr. Peters. Lieut. McKibbin's object in having his men inspect the plant was to give them an opportunity to learn something of the methods used in actual practice, the men having already become proficient in heliograph and wigwag signals, and having taken up the study of the electric telegraph. The members of

the party expressed themselves as being much pleased with the plant, and as having profited by their visit.

Mr. W. L. Herron has been assigned from the 6 A. M. to 3 P. M. trick; Messrs. J. J. Greene and C. O. Smith from split trick to 9 A. M.; Messrs. T. E. Doyle and J. P. Shields from split trick to 8 and 10 A. M. respectively; Robert Perrin to the Buffalo bonus.

Mr. T. M. Quill, for a long time at No. 20 Broad street, has been assigned to an 8 A. M. trick western division main office.

John E. Ferris, of Kansas City, Mo., a well known telegrapher who has been with H. C. Freedman & Co. for past two years, was taken to a sanitarium at Liberty, N. Y., on account of illness.

Resignations: Mr. L. E. Harper to accept a position on the Journal telegraphic staff; Mr. James E. Brick, one of the oldest employees in length of service, to engage in other business in Clifton, N. J.; Messrs. J. J. Cahill and W. E. Goodrich, who contemplate taking an extended trip for health and pleasure throughout the West, and incidentally a long rest at Mr. Goodrich's Indiana home.

TORONTO, ONT., CANADIAN PACIFIC.

We have some changes to report on our permanent staff this month. Mr. Bert Richardson has gone to the Postal at Detroit; Mr. C. Simpson, who copied Associated Press nights, to Vancouver, B. C., and Mr. Albert Ide to the Great Northwestern, this city. We wish them success in their new positions.

Messrs. J. Duggan, New York; Wm. Storey and Robert Bunch, Montreal, are on the extra list.

Mr. George Moss, of the Great Northwestern, Ottawa, has been placed on the permanent staff, and Ernie Preston, check boy, has been made an operator.

DETROIT, MICH., WESTERN UNION.

Mr. John McArdle, chief operator of this office, was married on April 16 to Miss Margaret Donnelly, for several years manager of the Western Union office at St. Ignace, Mich., at the home of the bride's parents on Mackinac island.

\$100 Reward, \$100.

The readers of this paper will be pleased to learn that there is at least one dreaded disease that science has been able to cure in all its stages and that is Catarrh. Hall's Catarrh Cure is the only positive cure now known to the medical fraternity. Catarrh being a constitutional disease, requires a constitutional treatment. Hall's Catarrh Cure is taken internally, acting directly upon the blood and mucous surfaces of the system, thereby destroying the foundation of the disease, and giving the patient strength by building up the constitution and assisting nature in doing its work. The proprietors have so much faith in its curative powers, that they offer One Hundred Dollars for any case that it fails to cure. Send for list of testimonials.

Address, F. J. CHENEY & CO., Toledo, O.

Sold by druggists, 75c.

Hall's Family Pills are the best.

Death of James D. Reid.

HIS DYING WORDS WERE: "GIVE ALL THE TELEGRAPH BOYS AND GIRLS MY LOVE."

The veteran telegrapher, James Douglas Reid, so generally and affectionally referred to as the "Father of the Telegraph," died at his home in the "Navarre" apartment house, 244 West Ninety-ninth street, New York, on Sunday, April 28. He was 82 years of age, and had but lately passed the anniversary of his birth, which occurred in Edinburgh, Scotland, on March 22, 1819. His death was due to an operation performed early in February for the removal of an abscess on his leg. While his health had been remarkably good up to the time of this operation, yet because of his subsequent weakened state and of his advanced age, he was unable to rally from the shock, and has lingered along gradually sinking away to his death.



THE LATE JAMES DOUGLAS REID.

In the death of Mr. Reid a conspicuous figure in telegraph circles, and a close personal friend of Prof. Morse, the inventor of the telegraph, has passed away full of years and of honors. No one within the telegraphic fraternity held closer possession of the love and respect of its members than Mr. Reid, and a feeling of profound sorrow, as of personal loss, will pervade all hearts at the sad news conveyed by this announcement. Mr. Reid's high qualities of mind and heart, his innate refinement and gentleness of manner, to which so many bear affectionate testimony, will render his memory a cherished one.

Mr. Reid, who since his retirement from the United States consulship at Dunfermline, Scotland, in 1897, had resided at Edinburgh, returned to this country, the land of his adoption, early in September, 1900. The Old Time Telegraphers will associate with pleasant memories his attendance, as their guest, at their last annual reunion at St. Paul and Minneapolis, shortly after his arrival. It was the first and only public function at which he ap-

peared, and the attention and honor conferred upon the distinguished visitor on the occasion was a source of much gratification to him.

Mr. Reid's contributions to the literature of the telegraph were numerous. His greatest work, "The Telegraph in America," a volume of nearly 900 pages, and which ran through two editions, and accepted as of standard authority, traces with highly interesting and minute detail the history of every telegraph company that had existence in the United States up to that date, besides presenting a vast amount of collateral matter, clearly showing the writer's familiarity with and grasp of his subject. His receptive mind was a storehouse of telegraphic information. This was due in great measure to his extensive acquaintance among those who were identified with the telegraph from practically the date of its adoption, for he himself became connected with it as early as 1845, when as a young man he superintended the building of the pioneer Atlantic and Ohio line for Henry O'Reilly between Philadelphia and Pittsburg. His later experiences as promoter, constructor and executive officer in telegraph management brought him into intimate personal relations with those who were eminent in the profession. He founded and edited "The Telegraph Review" April 1, 1853, a quarterly, and the first electrical publication in the world. He was one of the founders of the Telegraphers' Mutual Benefit Association and was its first president, holding certificate No. 1 in its membership.

Andrew Carnegie, who as a poor boy accepted a position from Mr. Reid at Pittsburg, first as a messenger and afterwards as an operator, never forgot the kindness shown him by one whom he always regarded as his benefactor. On several public occasions Mr. Carnegie has referred to this incident, notably so at a dinner tendered to Mr. Reid at Delmonico's on the eve of his departure in November, 1889 to enter upon the duties of consul at Dunfermline, Scotland. In person, Mr. Reid was of medium height, slim of build and of courtly manner, the personification of a gentleman of the old school. During the late fall and early winter he was a frequent and always welcome visitor in downtown telegraph circles.

Mr. Reid leaves a wife and daughter, the latter arriving from Scotland a few days before her father's death.

The funeral services, which were largely attended and highly impressive in character, were held at the Fifth Avenue Baptist Church, New York, on April 30, at four P. M., and were conducted by the Rev. Robert S. MacArthur, D.D., and Rev. Henry M. Sanders, D.D., who dwelt at length on the beautiful Christian character of the deceased. Mr. Walter C. Burton spoke eloquently of the telegraphic career of Mr. Reid and of the intimate and cordial relations that existed between him and the fraternity in general, to whom were addressed his dying words: "Give all the telegraph boys and girls my love." There were a large number of telegraphers present, including many of the officials of the Western Union, the Postal Telegraph and the Cable Companies.

The body of Mr. Reid was taken to Rochester, N. Y., his old home, for interment. A full account of the services at the church will be published in the May 16 issue of this paper.

Obituary.

Robert T. Quarterman, an operator employed by the Western Union Telegraph Company, died at Natchez, Miss., on April 9.

Edward B. Whitcomb, editor and proprietor of the "Mail and Times," of Des Moines, Iowa, and an old time telegrapher, died in that city on April 10.

H. B. Tannatt, who up to several years ago was manager of the Western Union office at Springfield, Mass., died in that city on April 20, aged 51 years.

Jerome B. Cable, an old telegrapher, and formerly division superintendent of the Chicago, Milwaukee and St. Paul Railway Company, died in St. Paul, Minn., on April 19, aged 47 years.

George L. Vaughan, for the past three years manager of the Western Union Telegraph office at Houston, Texas, while delirious from sickness, jumped from a window at Marlin, Texas, April 18, whither he had gone for medical treatment, and was almost instantly killed. He was 34 years of age, and a native of Missouri.

Major William Monaghan, a paymaster in the volunteer army, died at Manila, Philippine Islands, on April 13. He was a soldier of the Civil War, was appointed to his present position in June, 1898, and had been selected as a captain and paymaster in the regular army. In 1869 he was a telegrapher at Wellsville, Ohio, afterwards being located at various other points.

Prof. Henry A. Rowland, the world-famous professor of physics at the Johns Hopkins University, died at Baltimore, Md., April 16. Dr. Rowland had been in poor health all the winter. He was a member of the Electrical Congress that met in Paris in 1881, and for his services was made a Chevalier of the Legion of Honor. His most notable achievement was a multiplex telegraph invention.

Personal Mention.

Mr. E. C. Bradley, vice-president of the Postal Telegraph-Cable Company, New York, has recently been in the West on a business trip.

Mr. Charles Cuttriss, electrical engineer of the Commercial Cable Company, New York, has returned from Europe, where he spent a vacation of six weeks.

Miss Helen J. Eckert, daughter of Col. Wm. H. Eckert, and well known in telegraph and telephone circles, was married at the residence of her father in New York, on April 20, to Mr. Albert E. Mathews, of Buffalo, N. Y. Among the guests present were Gen. Thomas T. Eckert, uncle of the bride.

Mr. George G. Ward, vice-president and general manager of the Commercial Cable Company, New York, and Mr. Albert Beck, secretary of the same interests, sailed for England on the steamer Oceanic on April 24.

Signor Marconi, of wireless telegraph fame, reached London on April 27 on his return to Europe from this country. He has announced his engagement to Miss Josephine B. Holman, of New York.

Mr. W. W. Cook, counsel, and Mr. George Clapperton, traffic manager, Commercial Cable Company, appeared at the War Department, Washington, D. C., April 23, on business connected with their company.

Mr. John W. Mackay, president of the Postal Telegraph-Cable Company and of the Commercial Cable Company, recently arrived in San Francisco, and will spend several weeks in looking after his Western interests.

Henry H. Chandler, a brother of Col. A. B. Chandler, chairman of the Board of Directors of the Postal Telegraph-Cable Company, New York, died at his home in Randolph, Vt., on April 18, aged 76 years.

Mr. John A. Sabin, an old-time telegrapher, for the past fifteen years president of the Pacific Coast Telephone Company, has accepted the presidencies, also, of the Chicago Telephone Company and the Central Union Telephone Company, of Chicago.

Manager M. Marean, of the Western Union Telegraph Company, and Manager G. W. Ribble, of the Postal Telegraph-Cable Company, Washington, D. C., are accompanying President McKinley on his special train during his trip to the Pacific Coast.

Mr. Arthur L. Tinker, the son of Mr. Charles A. Tinker, general superintendent of the Western Union Telegraph Company, New York, representing the Gamewell Fire Alarm Telegraph Company, of New York, sailed for Germany on the steamer Lahn on April 24, whither he goes to install a plant of that company for exhibition at the Exposition to open at Berlin, June 1. After the close of the Exposition in September, Mr. Tinker will probably go to London in the further interest of his company. In prospect of an extended stay abroad he takes his family with him.

Miss Florence Olyphant Ward, only daughter of Mr. George Gray Ward, vice-president and general manager of the Commercial Cable Company, New York, was married on April 16 to Lieut. Henry Hughes Hough, U. S. Navy, at the Church of the Heavenly Rest, Fifth avenue and Forty-third street, New York city. This social event was a very brilliant one. After the ceremony in the church a reception was held at the home of the bride's parents, No. 51 West Fifty-third street, New York. The bride received a large number of beautiful presents. Many of the officials of the Commercial Cable and Postal Telegraph Companies were present.

Municipal Electricians.

James Knibbs, superintendent of the Fire Alarm Telegraph, of Troy, N. Y., for eighteen years, died in that city April 16, aged 73 years.

Mr. George Farrell, a well known old time telegrapher, is acting superintendent of the fire alarm system of New York, vice H. F. Blackwell, Jr., resigned to go to Honduras, where he will engage in electrical pursuits.

Mr. Morris W. Mead, of Pittsburg, Pa., president of the International Association of Municipal Electricians, will deliver an address outlining the progress of electricity in municipal affairs, on Municipal Day, August 26, at the Pan-American Exposition, Buffalo, N. Y.

Members of the Executive Committee of the International Association of Municipal Electricians, including Morris W. Mead, of Pittsburg, Pa.; J. T. Zelliff, of Paterson, N. J.; Adam Bosch, of Newark, N. J.; Wm. Y. Ellett, of Elmira, N. Y., and Frank C. Mason, of Brooklyn, N. Y., met in the latter city, on April 19, for the transaction of routine business of the association. Messrs. Mead, Ellett and Mason, who were appointed as a committee, went to Buffalo, N. Y., April 27, there to make hotel and other necessary arrangements for the annual convention of the Municipal Electricians, which will take place at Niagara Falls, N. Y., at the National Food Convention Hall, Monday, Tuesday and Wednesday, Sept. 2, 3, 4. While at Buffalo the committee were entertained by H. D. Reynolds, superintendent of the Postal Telegraph-Cable Company, and by Chief Smith, superintendent of the Fire Alarm Telegraph. The Pan-American Exposition buildings were illuminated for the first time on Saturday night last in honor of these visiting gentlemen.

Odds and Ends.

[Short, pithy items bearing on the telegraph are solicited for this column.—EDITOR.]

The position of superintendent of underground is in no wise related to the occupation of an undertaker.

"Is 'Sing Sing' one word?" said the receiver, with a short check.

"No," said the sender, "it's a duet!"

"Do you ever use any water at all?" exclaimed the irate manager scornfully to an operator who had been absent three weeks and just returned looking like the wreck of the Hesperus.

"Sure," stammered the culprit apologetically, "a little in the ink sometimes!"

EARLY SNOWBALLS (to check-boy): "Say, Sonny, do they need men upstairs?"

CHECKY: "Naw; dey's got men to burn!"

"How do you know?"

"W'y, dey 'fired' one yest'day!"

A singular illustrated story is going the rounds of the press to the effect that Albert J. La Faye, of New York, and John Coleberry, of Pittsburg, have worked the same newspaper wires together for so long a period that both have grown not only to look and think alike, but to even closely resemble each other in physical build. We have it from good authority, however, that each man still continues to draw his individual pay.

Wanted Her Message Sent Sealed.

A woman came into the receiving department of a telegraph office recently and sat down to write a message. She took her time to it, and she covered several pages before she was through. Then she carefully folded the dispatch and placed it in an envelope that was lying on the table. "I was watching her," said the receiving clerk, "and supposed that she was writing a note to send out by messenger, but I was mistaken. She came up to the counter and handed the envelope to me with the request that it be sent. I asked her where she wanted it to be sent, and she huffily told me to send it to the address on the envelope. 'But, madame,' I said, 'this is to go out of town.' 'I know it,' she snapped out. 'Then it should not be sealed; we must know what it is to send it.' 'Why don't you put it on the wire and send it just as it is?' she asked. I told her what was required, and she took her message from the envelope. That woman had written about two hundred words in her message, and was astonished when I told her what it would cost. She said that she always thought it was the proper thing to place the message in an envelope and pay twenty-five cents for sending it. She always received her messages in an envelope. I explained to her that a message of ten words cost twenty-five cents, and she set to work to boil down her message to that size. It was a pretty hard thing for her to do, but she finally succeeded, and as she handed me the message and the money she said: 'Please don't say a word about this. It is the first message I ever sent, and I am afraid I made a bad blunder.'"

TELEGRAPH AGE should go regularly to every one interested in the telegraph.

Readers of the TELEGRAPH AGE are referred to the advertisement of the Montauk Cable Company on page two of the front cover. (Adv.)

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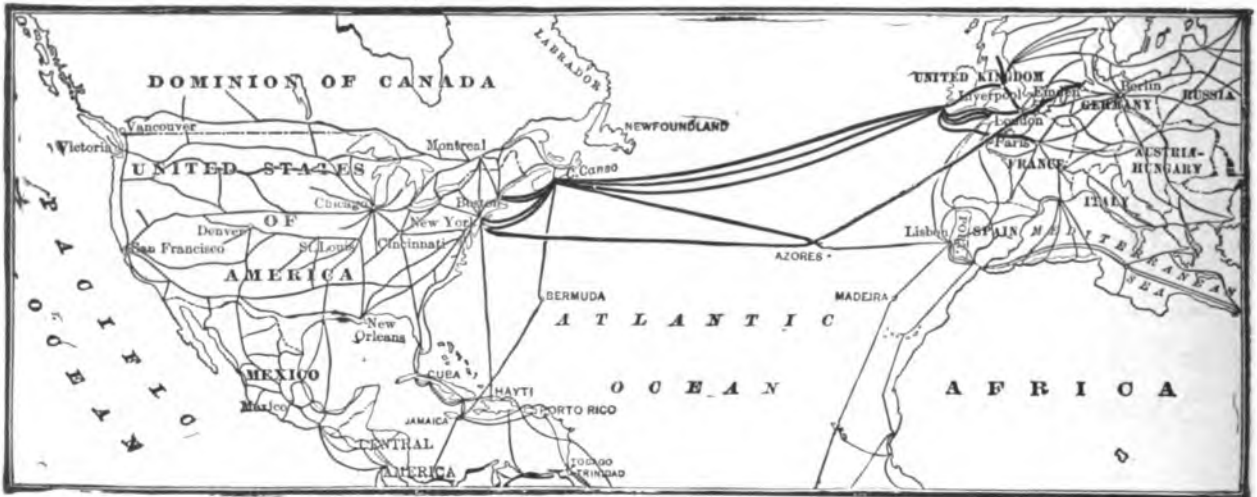


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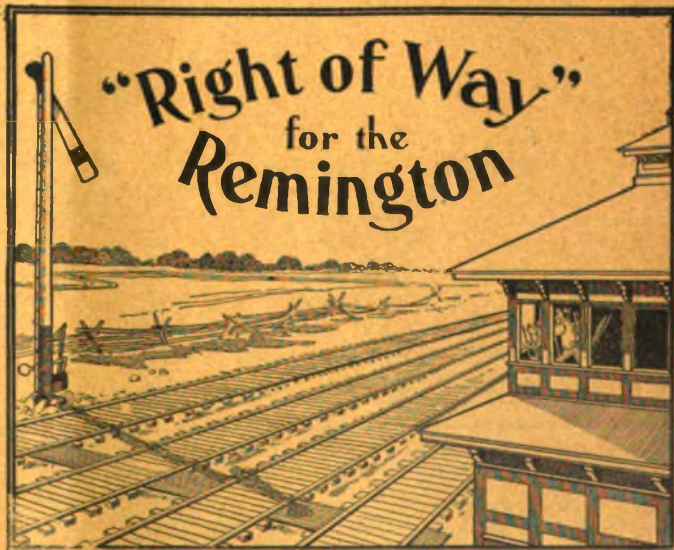
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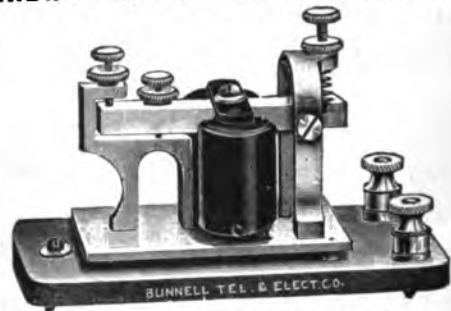
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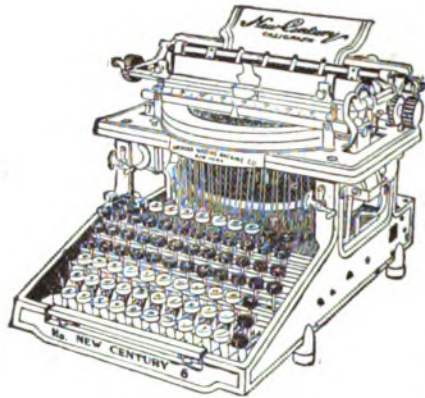
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THE TELEGRAPH AGE.

No. 10.

NEW YORK, MAY 16, 1901.

VOL. XXIV.

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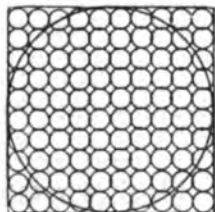
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SOME POINTS ON ELECTRICITY.

BY WILLIS H. JONES.

Wire Gauges.

In order to have a systematic plan of constructing wires to fulfil the requirements of any given specification, manufacturers have quite universally adopted the circular mil as the unit of area when considering the cross section of an electric conductor. Mil means "one thousandth of," and is the area of a circle having a diameter of one thousandth of an inch; hence if we square the diameter of a conductor given in thousandths of an inch, the product will show the number of circular mils that can be placed side by side in a square the sides of which are equal to the diameter that has been squared; the united areas of the small circles contained within such square being equal to the area of the large circle.



This is illustrated in the accompanying cut taken from "Pocket Edition of Diagrams" by the writer of this article. The large circle represents a wire 10 mils in diameter and the small circles are circular mils (100), whose united areas equal the area of the large circle.

Now, a wire possessing one circular mil diameter has been measured in nearly every conceivable manner, with the result that we know exactly how

much a given length of it will weigh; how much resistance in ohms it contains; the amount of current in amperes it will carry safely, and other equally valuable information. Using the respective findings as separate units of measurement, it follows that the value of any larger size conductor must necessarily be represented by some multiplication or division of the individual units.

As a matter of fact all information of this character may be found in regularly compiled tables and formulæ contained in technical books on electricity, thus enabling electrical engineers to at once decide upon the size of wire required for any given purpose or estimate the weight and cost per mile of a conductor from a few inches of the size desired as a sample with no other means than a pocket wire gauge and a knowledge of the proper formula.

This pocket gauge will show, for instance, that the diameter of the sample wire is just 120 mils. In order to ascertain the weight in pounds per

mile he uses the following formula: $\frac{d^2}{62.5}$, which

means that the square of d^2 (the diameter in mils) divided by 62.5 will give him the exact weight of the copper conductor. Thus the square of 120 is 14,400, which divided by 62.5 equals 230 pounds. This quotient multiplied by the market price of copper per pound of course tells what the cost must be. In like manner the resistance of the wire

per mile may be found by the formula $\frac{56,970}{d^2} =$

ohms. Figured out this will be found to be about 3.97 ohms per mile.

Turing to the table, it will be seen that according to the Birmingham wire gauge 120 mils represents an 11-gauge wire, the size now quite generally adopted by telegraph companies for their longest quadruplex circuits. Another table will show just how much current each conductor will carry safely, what strain it will withstand and give almost every fact one might wish to know.

Other metals than copper are measured in identically the same manner, the only changes in the formulæ being in the numerals. Thus while the weight per mile of copper is found by the formula $\frac{d^2}{62.5}$, for iron it would be $\frac{d^2}{72}$.

It is to be regretted that the various wire manufacturers do not adopt a universal gauge for conductors. The Birmingham (B. W. G.) and the Washburn & Moen (W. & M.) gauges are very nearly the same for similar numbers, while those of the Brown & Sharp (B. & S.) manufacture are probably 35 per cent. smaller. Thus an 11-gauge B. W. G., or a W. & M. would mean a diameter of 120 mils and weigh 230 pounds per mile for copper, while the same gauge B. & S. would call for 91 mils in diameter and a weight of but 132 pounds per mile.

To avoid misunderstandings of this kind the policy of calling for a given weight per mile when ordering conductors is becoming very much in vogue with careful buyers, and specifications are usually worded to that effect.

"Ho," at Eagle Pass, Texas, sends the following communication:

"March 9, about 3.30 P. M. the two telegraph wires running from Spofford Junction, Tex., to Eagle Pass, Tex., a distance of thirty-five miles, were affected by a very strong electrical current resembling that of an electric light or trolley current. The disturbance lasted eight or ten hours, and the current was so strong that it was found necessary to disconnect the wires from the switch boards, both at Spofford and at Eagle Pass. The battery for these wires, which is about 35 cells, is located at Spofford, the Eagle Pass end being grounded.

"During this trouble the weather was perfectly clear. The wind was blowing very hard from the north, and a terrific sand storm was prevailing. The wires on the main line of the Southern Pacific, through Spofford, and the Mexican International wires running south from Eagle Pass were not affected. The electric light plant at Eagle Pass was not in operation until several hours after the trouble appeared on the telegraph wires, and a close inspection during the time of the trouble failed to discover any cross or other wire trouble. Will some one explain this phenomena?"

In the absence of fuller details as to the extent and exact location of the sand storm mentioned it is rather difficult to give an absolutely reliable explanation of the phenomenon, but it is fairly safe to say that the abnormal current developed in the wires was due to the impact of the sand against the conductors, the friction of which created a great electromotive force in the latter. This phenomenon has been noticed heretofore in sandy sections of the country when the wind blows in a certain direction.

One can easily demonstrate the power of frictional electricity in a conductor by means of a few feet of iron wire and an electroscope. Directly the wire is rubbed with a piece of flannel, or other suitable substance, the needle is at once deflected, showing the presence of a current due to that cause.

The confinement of the phenomenon to the two circuits mentioned was probably due to the location and direction of the storm, which was evidently more favorable to them for the development of electricity than to other circuits which did not cross the path of the storm at a proper angle.

It is true that such phenomena are frequently due to earth currents during the existence of the aurora borealis and other electrical disturbances, but the manifestations experienced by our Eagle Pass friend can hardly be credited to that source, as the value and direction of such earth currents vary so rapidly that their source is seldom in doubt, and their range of travel is usually quite extensive—entirely too great, in fact, to confine operations between Spofford and Eagle Pass only.

Personal Mention.

Mr. A. S. Brown, electrical engineer of the Western Union Telegraph Co., New York, will take a long leave of absence.

Mr. W. D. Francis, superintendent of supplies, Postal Telegraph-Cable Company, New York, is in San Francisco, Cal., where he is spending a vacation.

Mr. Francis W. Jones, electrical engineer of the Postal Telegraph-Cable Company, New York, has returned from a tour of inspection to Pittsburg, Cleveland, Indianapolis, Chicago and St. Louis.

Mr. Chas. F. Annett, assistant superintendent of telegraph of the Illinois Central Railroad, Chicago, Ill., represented his company on President McKinley's special train between Memphis and New Orleans.

Mr. Edward B. Pillsbury, superintendent of the Postal Telegraph-Cable Co., at Boston, Mass., sailed from New York for Europe on April 24, whither he goes on a vacation. During his absence Assistant Superintendent Charles E. Bagley will be acting superintendent in New England.

Mr. Franz Rummel, the celebrated Anglo-German pianist and son-in-law of Prof. S. F. B. Morse, has just died in Germany. While touring in this country he met and married the beautiful daughter of Morse, Leila, with whom social gossip once associated the name of Governor Samuel J. Tilden. He leaves a widow and three sons.

The engagement of Miss Ethel C. Baker and Mr. H. LeRoy Moody was announced some time since. Miss Baker is the daughter of Mr. William H. Baker, vice-president and general manager of the Postal Telegraph-Cable Company, New York. The date of the wedding has been fixed for June 18 next at Mr. Baker's home in Brooklyn, N. Y. Because of the ill health of Mrs. Baker the wedding will be a very quiet one, only the members of the families of the bride and groom and their most intimate friends being expected to be present.

Mr. Daniel S. Spencer, who has been appointed assistant general passenger and ticket agent of the Oregon Short Line Railroad, is a graduate of that school which has furnished so many prominent men for railroad service—the telegraph office. His first position was as messenger boy in 1871, and in 1874 he entered the service of the Utah Central Railway and has been continuously since that time connected with the railways centering in Salt Lake City, having been clerk, agent, traveling auditor, train dispatcher and chief clerk of the passenger department. His relations with the public and with railway officers have gained for him an extensive acquaintance and a wide popularity.

Mr. Albert C. Case, of the Carnegie Company, who is to become president of the American Cotton Company on June 1, is a native of New Jersey, and at seventeen he became a telegrapher on the Pennsylvania Railroad. He was dispatcher when he retired to become, on May 1, 1886, auditor and cashier of the Baltimore and Ohio Telegraph Company in New York. He next became passenger agent for

the Lehigh Valley Railroad. He then went to Atlanta to revise the Atlanta branch of Bradstreet's Mercantile Agency, later becoming Pittsburg's superintendent. On January 1, 1896, he was made credit manager of the Carnegie Company. He was admitted to the Carnegie partnership in 1899, and now holds a considerable interest in the United States Steel Corporation. In five years, although transacting hundreds of millions of dollars of business, the loss to the Carnegie Company through bad debts was only nine one-thousandths of 1 per cent., a record unparalleled in commercial history.

Miscellaneous Items.

Mr. J. Delany, marine agent of the Commercial Cable Company, New York, has removed to Plainfield, N. J., for the summer.

Mr. A. Klein, of the Postal Telegraph-Cable Company, Birmingham, Ala., in a recent letter, writes: "A telegraph man who does not read TELEGRAPH AGE clearly works at a disadvantage."

Mr. E. W. Collins, who retired from the position of manager of the Postal Telegraph-Cable Company, Cleveland, O., April 30, prior to his going to Cincinnati, to enter upon his duties there as superintendent of the same interests, was the recipient of a diamond ring tendered by the employees of the office as a token of the esteem in which they held him. The presentation was made by A. X. Ernewein, wire chief.

Owing to the vacancy created by the prolonged illness of Mr. Edward F. Cummings, Mr. John Brant, on May 2, was elected by the board of management, vice-president of the Serial Building, Loan and Savings Institution, New York, to serve out the term of Mr. Cummings. This company has lately disposed of a large lot of real estate, and it is expected that another deal will soon be made that will result in diminishing its property holdings. This will materially inure to the benefit of the association, which to-day stands as one of the best in the city.

Resignations and Appointments.

Mr. Frank S. Gould has been appointed manager of the Postal Telegraph-Cable Company at Grand Rapids, Mich., vice A. V. Johnson, resigned.

Mr. Frank Sassuer, for many years of the Western Union office at Anderson, Ind., has been appointed manager at Elwood, Ind., to succeed Ralph E. Scolah, who resigned to engage in manufacturing business at Kokomo, Ind.

Obituary.

Howard Sparr, a railroad telegrapher, died from the result of an accident at his home in Reading, Pa., on May 6.

J. H. Farnham, of Boston, Mass., chief electrician of the New England Telephone and Telegraph Co., was shot and instantly killed at Portland, Me., on April 24, by an employee of the company who was thought to be insane. Mr. Farnham was formerly a telegrapher, and from 1879 to 1885 was manager of various Western Union offices in New England.

Death of William A. Wallace.

William A. Wallace, a well-known Chicago, Ill., telegrapher, died at Gowanda, N. Y., on April 14. Mr. Wallace was born at Geneva, N. Y., December 14, 1836, and learned telegraphy when but a lad. Mr. H. P. Dwight, in 1852, appointed him manager at Amherstburg, Canada. Here for three years he also published *The Telegraph*. In 1857 he worked for the Western Union Telegraph Company at Chicago, when the entire force of that office consisted of a manager, three operators, a receiving and delivering clerk and five messengers. In 1864 he was the Buffalo, N. Y., agent for the New York State Associated Press. Here he distinguished him-



THE LATE WILLIAM A. WALLACE.

self in a trial of speed, receiving six copies on manifold of 2,464 words of Congressional proceedings in one hour without a break, as timed by the late J. D. Reid and A. S. Brown, of New York. Afterwards in Chicago he published *The Switch*. In 1881-82 he was manager on the Chicago Board of Trade for the Baltimore and Ohio Telegraph Company. He was in his time one of the most brilliant operators in the United States and remained with the Western Union in Chicago until about three years ago when, on account of failing health, he retired to Gowanda, N. Y., where he died. The interment was in Forest Lawn Cemetery, Buffalo, N. Y.

Telegraph operators in the Police Department of New York are Fortune's favorites. The bill to give all of them the salaries and the rank of sergeants in the force has become a law, and under that statute every one of them will get much higher pay and enjoy far more privileges than the thousands of equally skilful tappers of the key who are not attached to this prodigal department.

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

Advice of a Practical Order.

Charles M. Schwab, president of the United States Steel Corporation, in a recent address to the graduating class of the St. George's Evening Trade School at the commencement exercises in the Memorial Building, New York, gave utterance to some fundamental truths that are as applicable to telegraphers as well as to others. He declared a college education usually a handicap to one who would succeed in business. He held the boy who got an early start the more certain to succeed.

Mr. Schwab was introduced as a man who had fought battles and won victories in the struggle of life, and therefore was well qualified to give boys advice founded on practical experience.

"I will speak to you," began Mr. Schwab, "just as if you had come to my office asking for advice, and the first thing I will say to you is to come alone. Don't come with somebody's backing. Learn to rely upon yourself. That is the first lesson. If you come indorsed by somebody of influence, it always will leave room for others to say that whatever position you may get, you got by influence and not because of your individual merit. No true success is built on influence. You must win your position for yourself.

"Then here is another thing that is essential—you must do what you are employed to do a little better than anybody else does it. Everybody is expected to do his duty, but the boy who does his duty, and a little more than his duty, is the boy who is going to succeed in this world. You must take an interest in what you are doing, and it must be a genuine interest."

Here Mr. Schwab told a story which everybody understood referred to himself. Afterward he told another story which it was equally well understood referred to H. C. Frick. The stories follow:

"There were ten boys employed by a concern once, and one night the manager said to his subordinate: 'Tell the boys they are to stay a little longer to-night—tell them that they are to stay until 6 o'clock. Don't tell them why. Just tell them that and watch them.' So this was done, and when 6 o'clock came around there was just one boy who was wholly interested in his work, and was not watching the clock to see what time it was. That boy was the one the manager wanted, and he was taken into the office, and as he continued to manifest the same interest in his work he was promoted until at last he got quite a responsible place.

"Then there was another boy. He began carrying water, and he did it so much better than any other boy, seeing to it always that the men had good water, cool water, and plenty of it, that he attracted attention to himself. He was taken into the office, where he became in time superintendent and then general manager, and he is now the man that is at the head of the great Carnegie Company, with thousands of men under him. As a boy he did more than the ordinary run of boys did, and so attracted attention, and that was the secret of his first step upward.

"I was in a bank down-town the other day when a newsboy came in and sold the banker a paper. After

he had gone out the banker said to me: 'For two years now that boy has been coming in here at the time I told him to come—2 o'clock. He does not come before two nor after two, but at two precisely. He has sold me a paper every week day in that way when I have been here, without a break. He sells it for just 1 cent—its price. He neither asks more nor seems to expect more.

"It is a cold commercial transaction. Now, a boy that will attend to business in that way has got stuff in him. He does not know it yet, but I am going to put him in my bank and you will see that he will be heard from.

"Another thing, boys, and that is get an early start. The boy in business who starts with a manual school education at seventeen or eighteen will get a start that the boy who goes through college will never catch up with, other things being equal. That does not apply to the professions, of course, only to business. Out of forty men I know who are great leaders in the business world only two are college graduates."

Co-operation.

To co-operate is to act or operate jointly with another or others, or to concur in action, effort or effect. Such is the definition found in Webster's dictionary. To successfully co-operate it is necessary for all concerned to be co-operators. In the United States we are slowly learning of the immense advantages to be gained by the wealth producers if they could inaugurate a correct plan of procedure with this object in view. This is the foundation of nearly all the reform movements, and it is sincerely to be hoped that eventually all the reform forces will combine upon a plan that will be mutually satisfactory.

The individualistic idea that has predominated in this country allows too much liberty to superior intelligence and cunning. Liberty is perhaps not the proper word to use, license would be more appropriate. The class that has taken undue advantage of this country's liberal plan of government opposes co-operation in any of its forms.

Signal Corps Changes.

The following changes in the Signal Corps are ordered from Washington: Major George P. Scriven will proceed to Washington and report to the chief signal officer for duty as disbursing officer in his office, to relieve Captain Eugene O. Fechet, who will proceed to Manila for assignment to duty. Captain Otto A. Nesmith will proceed to Havana for duty as signal officer of that department, to relieve Colonel Henry H. C. Dunwoody, who will repair to Washington, and report to the chief signal officer for temporary duty in his office and then for duty as signal officer of the Department of the East, to relieve Captain Samuel Reber, who will repair to Washington and report for further orders.

TELEGRAPH AGE should go regularly to every one interested in the telegraph. Write for sample copy.

Correspondence.**A PLEA FOR HAPPY-GO-LUCKY MORSE SENDING.**

Editor TELEGRAPH AGE:

Too much abuse has been heaped upon the devoted heads of the bad Morse men. It is time for a halt while we show an ignorant and unappreciating world our real worth.

In the first place, "a certain amount of fleas," we are assured by Mr. Harum, "is good for a dog;" and he had just as lief play flea as dog any day. There are so many of these conceited parties who travel around on their reputations for "sending good stuff" that the world would become an impossible abiding place if a few of us did not strive to keep them within bounds.

The idea of expecting the destruction of individuality in sending! Would these carpers destroy all the spice of the craft by reducing the sending side to the dull level of the receiving side, all of whose typewritten copies "look alike?" Never! Never, while one man remains who has the moral courage to play "dog in the manger."

What can equal the satisfaction of the sender who perceives in his mind's eye one of the immaculates a couple of hundred miles away, and about sixteen words behind, scratching his head and exclaiming, "That was 86 all right, but shoot me if I know where the 8 ended and where the 6 began!" In the grand economy of things, one man's right to joy is as good as another's. The immaculates must not hug to themselves the delusion that they are the only real things. The rag-time senders have rights which must be respected. And, furthermore, it stimulates mental activity to be left in doubt whether a shaky "q" should be rendered "in" or "on" or put through the code and turned out "on the." Therefore the rattlesnake curves and combinations are entitled to a high place in the halls of Morse fame.

Long live the man who can, if he tries, but won't try! Also, he who can rise superior to all rules of punctuation aye, even to the point of discarding the troublesome practice entirely. What interest has the telegrapher in conserving the sense of the business he handles? His duty ends when he starts his hand to work. Then is his mind free to wander back to the scenes of his boyhood and chase the cows around the pasture for exercise; or sally forth into the future when he shall have an automobile and a bank book, and in these joys to revel until he finds he has closed his key and the other man is getting back at him.

ANON.

New York, May 8, 1901.

Recent Telegraph Patent.

A patent has been granted to Dr. G. A. Cardwell, of New York, for a printing telegraph.

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.

Publications.

"PHILLIPS' CODE," by Walter P. Phillips, 9th edition, 69 pages. This unique and efficient guide for the transmission of press reports still maintains its great popularity; bound in flexible leather; price, \$1.

"THE QUADRUPLEX," by Wm. Maver, Jr., and Minor M. Davis, 128 pages, 63 diagrams and other illustrations; treats of the technical side of telegraphy in a manner at once simple, comprehensive and easily understood; bound in cloth; price, \$1.50.

"LIGHTNING FLASHES AND ELECTRIC DASHES," 160 pages, illustrated. An original and sparkling collection of telegraph stories, quaintly descriptive of scenes and incidents that a telegrapher will appreciate and heartily enjoy; bound in cloth; price, \$1, reduced from \$1.50.

"AMERICAN TELEGRAPHY," by William Maver, Jr., enlarged and improved; 600 pages; 475 illustrations; clear, lucid and comprehensive in its treatment of the subject, the ranking work of its kind, and of high practical value to every telegrapher; bound in cloth; price, \$3.50.

"TELEGRAPHERS OF TO-DAY," by John B. Taltavall, 354 pages. This volume, of which but a few copies of the first edition now remain, presents a compendium of illustrated life sketches of over 800 well-known telegraphers who have been prominently identified with the telegraph during the past fifty years; bound in cloth; price, \$5.

"POCKET EDITION OF DIAGRAMS AND HANDBOOK FOR TELEGRAPH ENGINEERS," by Willis H. Jones, 115 pages. 54 full-page diagrams. This book places before the telegrapher a pocket edition of diagrams designed to take the place of the incomplete drawings which nearly every chief operator, lineman and student carries; bound in flexible imitation leather; price, \$1.

"THE TELEGRAPH IN AMERICA," by James D. Reid, 894 pages, illustrated. This book is of marked interest and worth, inasmuch as it contains telegraphic records of great historical value, not to be found elsewhere. There are only a limited number of volumes of this great work now available; bound in full morocco; price, \$7.

Any of the above publications will be sent on receipt of price to any point in the United States or Canada, express charges prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

Novel Cable Landing.

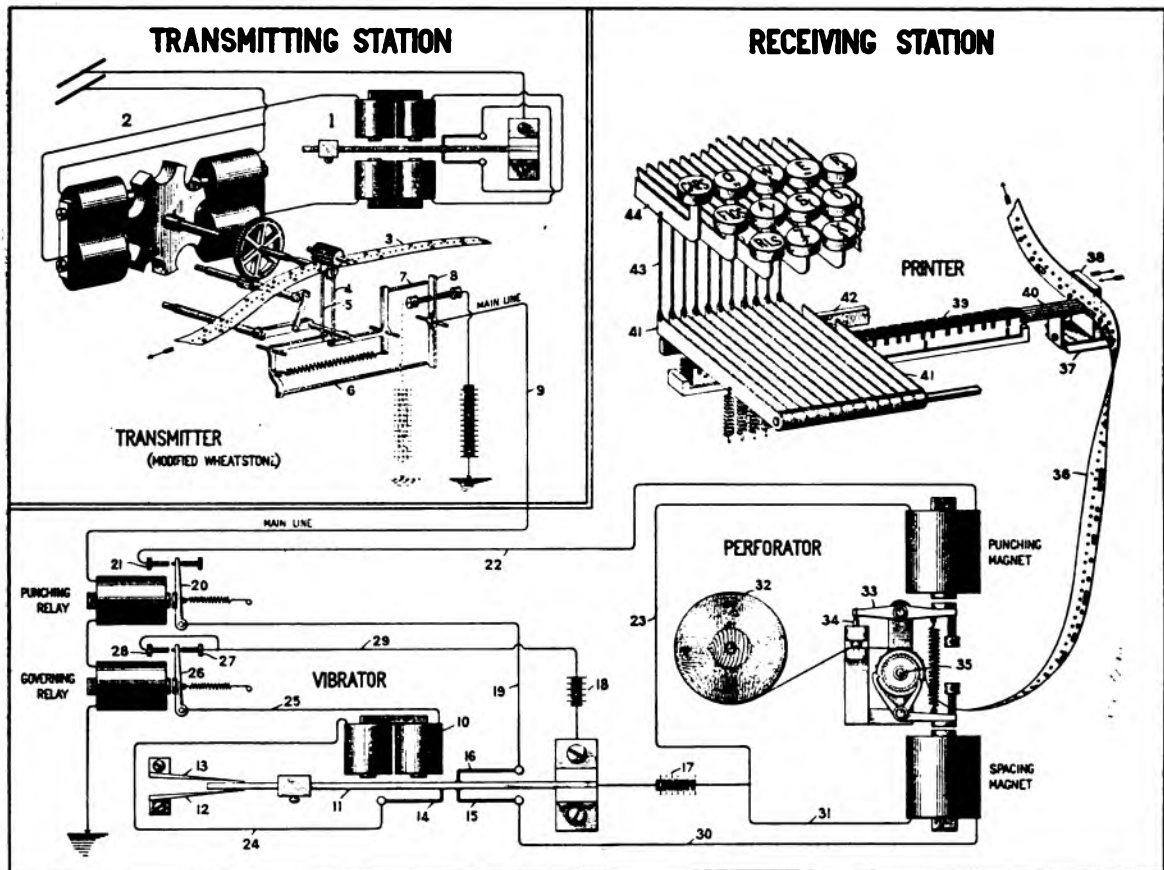
The submarine cable for the Commercial Cable Company between Waterville, Ireland, and Weston-Super-Mare, England, where the cable will be directly connected with London, was landed on May 6. A large number of people watched the shore end landed from the cable steamer Silvertown by the novel method of floating the cable on inflated rubber bags.

You can't afford to be without TELEGRAPH AGE.

Murray-Page Printing Telegraph.

At the January meeting of the American Institute of Electrical Engineers, Mr. William B. Van Sise described the theory and principle of a page printing telegraph system invented by Mr. Donald Murray, an Australian journalist, who made arrangements with the Postal Telegraph-Cable Company, New York, for the exclusive telegraphic rights to his invention in the United States. The system is very ingenious, and is developed to a high degree of perfection. What it accomplishes may be stated briefly as follows: The messages are first transcribed on a typewriter, which perforates a tape; the tape is then passed through a transmitter similar in design to the Wheatstone transmit-

characters. There are no spaces between successive letters or characters. Either makes and breaks, or reversals can be used in transmitting. It is to this fundamental fact—all letters of the same length—that the success of the system is due. Each letter occupies half an inch on the transmitting tape, and a similar length on the receiving tape. This gives a comparatively simple perforator operated by an ordinary typewriter keyboard, and there is no necessity for employing a complicated differential paper feed mechanism to provide for letters of varying length. In connection with the ordinary typewriter keyboard there is a group of ten punches, one punching magnet, and one spacing magnet, controlling a motor-driven escapement.



ter and the messages are thus transmitted to the receiving station, where they are received in the form of a perforated tape. This is then passed into a typewriter, the keys of which are controlled by the perforations in the tape, and by operating the typewriter mechanically the messages are transcribed on the usual message blanks in Roman characters.

The telegraphic alphabet employed by Mr. Murray is of a special character, and is about forty per cent. shorter than the Morse alphabet. The keyboard perforator has for each character a separate movable lever each character occupies an unvarying linear space on the tape, and consists of five perforated and unperforated divisions of such space. The difference in the number and succession of these sub-divisions or perforations determines the

At the receiving station there is an electro-magnetic perforating device which accurately reproduces the transmitting tape by producing corresponding perforations and spaces. This received perforated tape passes from the receiving perforator into the typewriter operating device. This typewriter operating device consists of five longitudinally reciprocating bars or "combs," presenting five pointed terminals to a perforated plate or die. The perforated tape passes between the surface of the perforated plate and the pointed terminals of the bars. The pointed terminals of these bars register respectively with the five holes in the die. The tape is moved along between the die and the pointed ends of the bars step by step, the length of a letter or character at each step, say, one-half inch. When perforations in the tape coincide with the

pointed ends of the bars and corresponding perforations in the plate and die, and the plate is moved toward the pointed ends of the bars, the bars are or may be separated into two groups; one group is moved longitudinally, corresponding with the unperforated sub-divisions of the tape, the other group project through the perforations in the tape and in the die, and are unmoved. Lying over the five bars or "combs" at right angles thereto are a series of thin metal strips. Each strip is mechanically connected with its individual key lever on the typewriter. The upper surface of the five bars first described is notched arbitrarily. These notches are caused to be aligned below any one of the strips under the control of the perforated tape and die; when any one of the strips drops into a groove a motor-driven cam engages it and produces a movement of the typewriter lever. The movement of the die and paper tape and of the typewriter key-lever is produced by motor-driven cams. It is evident that this mechanism will operate not only a typewriter but any keyboard machine such as a type-setting machine or linotype. The perforated receiving tape is therefore available for setting type automatically.

The accompanying diagram shows the general circuits and connections at both the transmitting and receiving stations.

Synchronism between the transmitting and receiving instruments is not necessary in this system. It is however essential to preserve unison between the arriving impulses in the main line and the local punching and spacing impulses at the receiving station. This is accomplished in the following manner:

The governing relay operates a circuit breaker, moving between two fixed contacts, and electrically connected to the same circuit terminal, so that the moving contact in going from one to the other operates to open the circuit during its time of transit only. This break in the local vibrator circuit takes place at the beginning and end of each main line signal, and as the main line signals arrive at a uniform rate and are of unit or multiple unit duration, the governing relay operates its break-point at uniform unit intervals or multiples of these intervals. In the same circuit in which this break-point operates there is also the break-point of the motor-magnet, which works on the buzzer principle. There are thus two break-points in the same circuit. If they open and close together, then full vibratory impulses flow through the motor magnet. If, on the other hand, the rate of vibration of the reed tends to accelerate, or the rate of the arriving current signals tends to lag, then the two breaks occur more or less alternately, and consequently less current gets through—the impulses are clipped—and the rate of vibration of the reed is reduced. In practice the receiving vibrator is set to go one or two per cent. faster than the rate of the arriving signals, and then the governing action of the two interfering break-points in the same circuit results in the establishment of a steady dynamic balance between the accelerating tendency of the reed and the retarding tendency of the arriving main line signals. By this arrangement the necessity for send-

ing correcting impulses over the main line to secure synchronism is avoided, the correcting impulses being obtained locally with the co-operation of the main line signals themselves.

By varying the position of the movable weights upon the reeds at the transmitting and receiving stations the rate of vibration and the rate of transmission may be changed. To maintain unison it is necessary to have a considerable range of variation in the speed of this reed, such variation in speed to be attained in response to variation in the length of current impulses of uniform strength. This is accomplished by the aid of yielding or spring stops placed at each side of the reed.

By using multiple units of current and space in the formation of his alphabet, Mr. Murray has found it unnecessary to use reversals, five different time intervals combined with makes and breaks giving all the combinations required. The uniform time for each letter is divided into five equal units or sub-divisions, one or more of these five sub-divisions being a current impulse, so that current impulses or spaces of one, two, three, four or five units duration are obtained. Thirty-two possible combinations are obtained in this manner, and by using two of these letter signals as prefixes to the others, capitals, figures and lower case letters, about eighty-seven characters in all may be transmitted. Makes and breaks or reversals may be used, therefore, adopting the system for use in quadruplex transmission. The alphabet, however, is only available for machine telegraphy, as it is practically impossible to observe five different time intervals with sufficient accuracy in manual transmission.

The system has been practically tested at different times on loops of varying lengths and on circuits between cities. It is now being run experimentally at 130 words a minute single, and as the system can be worked duplex this would give about 250 words a minute. In a test between New York and Chicago a speed of 102 words a minute was achieved.

In this connection it should be mentioned that any number of typewriting perforators may be operated independently to supply transmitting tape, as one typewriter is limited in its capacity to the ability of the individual operator to manipulate the keyboard. The same applies to the translating system at the receiving station, where the tape can be cut off at convenient lengths as it is received, and distributed among two or more typewriters for rapid transcription.

The Weston Electrical Instrument Company, the well-known manufacturers of voltmeters and ammeters, so long located at Nos. 114 to 120 William street, Newark, N. J., has removed to Waverly Park, Essex Co., N. J., where in future all correspondence should be addressed. The superior excellence of the Weston Standard goods long since found recognition and acceptance as indispensable factors in telegraphic practice.

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New Assistant Chief at Chicago.

Mr. Charles H. Finley, who succeeds Mr. George Dunning as assistant chief operator at Chicago, began his telegraphic career on the Chicago, Burlington and Quincy Railway twenty-one years ago, and has been connected with the Western Union Telegraph Company for nearly twenty years. He has risen steadily from the ranks to his present position, serving successively as operator, division chief and quad chief. Mr. Finley has to his credit as operator the record of handling five hundred ordinary



MR. CHARLES H. FINLEY.
Assistant Chief Operator, Western Union Telegraph Co.,
Chicago, Ill.

messages in nine hours between Chicago and St. Paul, at a time when the pen was considered mightier than the "mill." Mr. Finley's genial manner and pleasant disposition have won him hosts of friends in the Chicago office as well as in the many adjacent cities which he has visited in the capacity of repeater expert. He thoroughly understands his business, and his appointment as assistant chief operator was a wise one. Mr. Finley has for the past two years served as Sunday chief operator with the greatest satisfaction.

English Telegraph Deficit.

In the House of Commons, London, May 10, Mr. Henniker Heaton drew attention to the annual loss of £700,000 in the telegraph service, aggregating £8,300,000 (about \$40,340,000) since the Government took over the lines, and asked how the Government proposed to remedy it.

The Chancellor of the Exchequer said the public were more eager for rapid communication than the revenue warranted. Unproductive extensions must be discouraged.

Mr. Henniker Heaton also asked if the Government was prepared to lease the telegraph lines to a private company. The Chancellor of the Exchequer did not reply.

The Telephone on Railroads.

Mr. E. F. Blendinger, superintendent of telegraph, Erie Railroad Company, New York, contributes the following communication to the Electrical Review of New York:

"Nearly every block station on the Erie Railroad Company's system is now equipped with its telephone, and the work of equipping all the stations is rapidly approaching completion.

"It is found that the telephone is a most useful adjunct to the block-signal system. Attached to the wall of the block tower, with its two-way spring switch ready to throw it into the bell circuit on either side, it is to the signalman a quick and reliable means of verifying signals. It is at his service at any and every moment, and there is no need for his waiting under compulsion, as is generally the case on the telegraph wire, until the dispatcher has given "O. K. and Complete" to a train order, or has raised some otherwise busy man up the road to get a train report. The value of the feeling of security with which it imbues the signalman is inestimable.

"As special training is not necessary for its use it opens to the company a large field from which to recruit their force of signalmen, and also places in their hands one more line of occupation in which to use faithful but unfortunate employees who have become crippled in the train service, and thus incapacitated for service requiring heavy physical exertion. Such men, by reason of their active connection with the train service, bring to their new duties an experience which makes them doubly valuable. In many instances the telegraph becomes superfluous after the installation of the telephone, by reason of the location of the block station at a point where the ability to place train orders would be of no value. While we have not reached the point attained by a certain western road which has applied the telephone to the dispatching of trains over a short but unusually busy section of track, still we feel that the possibilities are far from being realized.

"Considering the trifling amount of training necessary to develop a first-class telephone operator as compared with the one or two years' practice which the Morse operator must undergo before being able to handle even the lightest work, it would seem that good policy demands that the railroad manager shall look with favor upon the telephone, and welcome it as a companion, if not a substitute, to the telegraph in the field of formal communication."

Messengers for Train Service.

Hereafter passengers on all trains passing through the Union Station at Pittsburg, Pa., will have the benefit of a messenger service, the franchise for such action having been granted to the American District Telegraph Company. As a messenger boy will meet the arrival of every train entering the station, and receive telegraphic messages from passengers without extra compensation for conveyance to the Western Union Telegraph office, in whose interest the company will act, the convenience and desirability of this service will be manifest.

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CHANGES OF ADDRESS.—The address of a subscriber will be changed as often as desired. In ordering a change of address the old as well as the new address must be given.

NEW YORK, May 16, 1901.

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.

James D. Reid.

The death of James Douglas Reid removes a conspicuous link binding the present with the past in the record of the telegraph. His activities in his chosen field began at a period simultaneous almost with the advent of telegraphy; his career closed at a time when the electric wire carried its message to every part of the world, under sea as well as over land. His was a wide span of life and the marvelous achievements in telegraphy he was permitted to witness, and in its earlier stages to take an active part in upbuilding, were to him always a source of satisfaction and inspiration, for he believed that the telegraph was an instrument in God's hand to bind closer together the nations of the world and by this means to promote "peace on earth, good will to men."

Much has been said about Mr. Reid at different times and elsewhere in these columns; it only remains now to raise the hand in final benediction. He has left behind him a memory fragrant with kindly deeds, a life above reproach, an example of Christian character that all may emulate.

Telegraphic Historical Society.

There is a movement on foot to consolidate The Telegraphic Historical Society of North America with the Old Time Telegraphers' Association. In the call for the eighth annual meeting of the former, which is to be held at the Astor House, New York, on May 22, the question of consolidation is distinctly brought to the attention of members in a letter signed by Charles A. Tinker, president; F. W. Jones, chairman board of directors, and J. B. Taltavall, secretary and treasurer. It is pointed out that because of a reduced and scattered membership making it difficult to secure the attendance of more than from five to ten members at any of its yearly meetings, and of the consequent growing lack of interest taken in the society on the part of its members, that the objects of the society, which are "the collection, preservation discussion and publication of information relating to the history, progress and development of the electric telegraph in North America," might better be carried out if it were consolidated with that of the Old Time Telegraphers' Association. It is understood that there has been secured by mail a practically unanimous expression from the Historical Society membership favoring the proposed consolidation, and now that the officers have received authority to act in the matter, the question will doubtless be fully considered at the meeting on May 22. It remains of course to be seen how the Old Timers will receive such a proposition, yet as a consolidation would manifestly be to the gain of each society, it is difficult to anticipate that any objection will be raised. For this union of interests, while settling a serious problem of existence in the one case, will at the same time serve to enrich the older society by a contribution of highly interesting and valuable assets in the shape of books, papers, portraits, various telegraphic devices, etc., now deposited with the Smithsonian Institution at Washington, D. C., and in the hands of the secretary, a collection which will, without doubt, be prized by the Old Timers.

Telegraph and Telephone Consolidation Again.

Like Cæsar's ghost, the bugaboo of a combination of telegraph and Bell telephone interests will not down. Directly one report is disposed of another appears. And the performance is on and off the stage with great regularity. The latest scheme of this sort reported is one purporting to be under negotiation by President John W. Mackay of the Postal Telegraph and Commercial Cable Companies, and Gov. W. Murray Crane, of Massachusetts. These are distinguished names to juggle with, and the amount of stock and bonds of the several companies to be consolidated presents in its magnitude an impressive total as it appears in tabulated form. The newspaper press of the country has with great unanimity found space to print the story, yet after all there is no truth whatever in the statement. A little more ingeniousness should be interwoven into the next tale of the kind. The old earmarks are becoming too familiar.

Postal Telegraphy.

We note the frequent discussion pro and con, in the press, on the subject of postal telegraphy. Many arguments have been advanced before the Industrial Commission at Washington lately favoring Government absorption of the telegraphs. Members of the typographical union also appeared before that body in the interests of postal telegraphy, because its adoption by the Government would make more business for the union by reason of a consequent reduction in press rates, thus making it possible for country papers to be able to afford the receipt of telegraph press reports. Advocates of the other side of the question, however, state that press rates in this country are to-day lower than they are in Europe, where governmental control of the telegraph is the rule. The question of Government telegraphs is constantly being enlarged by having tacked to it savings bank schemes, the absorption of the telephone and even of railroad systems. Of all the articles that have appeared lately treating on the subject, the following is one of the best that has come under our observation:

Superficial resemblances deceive many persons, among whom seems to be Congressman Dick, of Ohio, who insists that the Government should operate the telegraph and telephone business of the country because it operates the post offices. It is not surprising that he also believes the Government should take care of the savings of the people through postal banks; neither he nor anyone else who advocates this expansion of the functions of government is willing to say what the Government should do with the savings after it has received them, except a few very bold persons who admit that even if the public debt were to be perpetual, which by American traditions it is not to be, the investment of savings in Government bonds would not earn what savings bank depositors are now getting, and they advocate paying a higher rate, which can only come out of the proceeds of taxation, and using the money for public improvements. This in only a circuitous way of borrowing vast sums of money, which must ultimately be repaid out of the proceeds of taxation, and spending the money on roads and canals and public buildings.

The postal service and the telegraph and telephone services are not alike. The postal service is a forwarding business, done over public roads by common carriers who exist primarily for the transportation of freight and passengers. The Government receives postal matter and engages these carriers to transport it to the point at which it distributes the matter. If the telegraph and telephone service were analogous the postal service could hardly be urged as a sound precedent for their absorption by the Government. The postal service is inordinately extravagant and the auditor for the Post Office Department has lately described its accounting system as inviting disaster. It does a very large part of its business for less than cost, and it pays the railroad companies upon a schedule of rates fixed twenty-five years ago, since which the

rates of charge for every sort of service except that rendered to the Government have been very greatly reduced. The postal service is carried on at a loss, and we might reasonably infer, therefore, that the absorption of the telephone and telegraph business would merely increase the deficit to be met out of the proceeds of taxation.

The absorption of the telegraph and telephone service would involve the Government in the cost of construction and maintenance of lines, which is analogous to nothing in the postal service, but would be analogous to the Government's ownership and operation of the railways. The postal service is now extended over vast areas where it does not pay, and we are not disposed to complain of this; but if people are supplied with postal facilities at the expense of the rest of the nation, it is scarcely a reason for also supplying them with telegraphs and telephones on the same basis. The hope of getting something for less than it costs, and loading the deficit upon other people, is the leading reason for urging the extension of governmental functions, whether into savings banks or telegraph lines.

Municipal Electricians.

At the meeting on April 27 of the Executive Committee of the International Association of Municipal Electricians at Niagara Falls, N. Y., to make the necessary arrangements for the next convention, which is to be held at that point on September 2, 3, 4 in the Natural Food Company's Convention Hall, the following named gentlemen were present: M. W. Mead, Pittsburg, Pa.; F. C. Mason, Brooklyn, N. Y.; J. W. Aydon, Wilmington, Del.; M. G. Canfield, Grand Rapids, Mich.; W. Y. Ellett, Elmira, N. Y.; F. P. Foster, Corning, N. Y.; J. S. Craig, Toronto, Ont.; M. J. Donohue and W. G. Greene, Niagara Falls, N. Y.; Henry Smith and John Welsh, Buffalo, N. Y.; W. C. Banks and H. B. Kirkland, New York; H. C. Adams, Pawtucket, R. I.; together with H. D. Reynolds, of Buffalo, and Thomas G. Carpenter, Postal Telegraph-Cable Co., New York. The committee were cordially received by Mayor Butler, of Niagara Falls, and were assured by him that everything possible would be done to contribute to the success of the convention at the time of its meeting. Mr. Donohue, of Niagara Falls, also stated that an attractive program would be arranged for the entertainment of those who should attend. A large number of applications for membership were presented by President Mead and referred to the committee to report on at the next meeting.

It is particularly desired that the paper to be read before the convention shall embrace a wide range of subjects, and to this end Secretary F. P. Foster has sent out a circular to members requesting them to name topics. It is urged that replies should be submitted promptly in order that they may be passed upon and selections made by the Committee on Papers, consisting of Messrs. M. W. Mead, J. W. Aydon, Adam Bosch and F. C. Mason, who meet on June 1 for the purpose.

You can't afford to be without TELEGRAPH AGE.

A Bit of History.

The little two-story brick building, No. 21 Exchange street, Rochester, N. Y., the first structure built north of the Erie Canal in that city, erected in 1823-24 for the bank of Rochester, and which is ten years older than the city of Rochester itself, has just been razed to give place to the new bank building of the Genesee Trust Company.

The removal of this building calls to mind much of the early and eventful history of the Western Union Telegraph Company, for during the early sixties the structure was occupied as the general headquarters of that company, and within its walls the originating plan and scope of the present great corporation was largely determined. In a business of such a character, and even then with such



THE FIRST EXECUTIVE OFFICES OF THE WESTERN UNION TELEGRAPH COMPANY, AT ROCHESTER, NEW YORK.

wide-extended and growing ramifications, which at that early date gave promise of the vast possibilities since realized, it was natural that New York city should be sought as a proper headquarters for its conduct; hence it was that in 1866 the old building at Rochester, with its limited accommodations long since outgrown, was abandoned, and the company removed to the metropolis.

As the old building at Rochester has always had a certain sentiment attaching to it of peculiar interest to many telegraphers, a brief reference to the causes that led to the formation of the Western Union Company, whose first official home it was, and of those who were instrumental in bringing it about

and who first assumed its management, will be of interest.

The telegraph lines in existence in the United States prior to 1857 were generally small, and each was under the control of a separate company. One ran from Boston to New York, another from New York to Buffalo, and a third from Buffalo west to Chicago. While there were many miles of telegraph in the country, the amount of business transacted yearly was small. Every company had a president and high officials, whose salaries consumed all profit. In the whole country there was only one line, the New York, Albany and Buffalo, which was paying a dividend.

In 1857 a meeting of the representatives of different telegraph companies was held in Washington to consider various measures for settling the difficulties which were ruining the business.

Hiram Sibley, of Rochester, N. Y., proposed the consolidation of all the different lines, but met with little encouragement. The difficulties were enormous and the enterprise was on a scale to frighten any ordinary man. But Hiram Sibley was no ordinary business man. He returned to Rochester with a determination to carry out the vast undertaking he had planned. In Rochester he obtained the assistance of many of its most prominent men. Isaac R. Elwood, George H. Mumford Isaac Butts and Don Alonzo Watson were among the men who foresaw the great future the plan promised.

The first step was the consolidation of the lines west of Buffalo, from which the company took its name of Western Union. In addition to the gentlemen mentioned who were associated with Mr. Sibley in the undertaking was Ezra Cornell, of Ithaca, father of the ex-governor, who was the prime manipulator of the Erie and Michigan Telegraph Company, which was really the basis of the Western Union. In after years a share of the original stock of that company was worth a small fortune. Henry S. Potter and Joseph Medbery, of Rochester; Jephtha H. Wade, of Cleveland; Anson Stager, of Ashtabula, and many of the prominent citizens of Rochester were afterwards added to the directors.

But the first days were ones of darkness and discouragement. Each little line had at its head officials who naturally looked with disfavor on a plan which would decrease their salaries and place them in subordinate positions. Often a line necessary as a connecting link would demand extortionate terms, and only be brought to reason by threats of duplication. That the infant company lived through such trials was due to the executive ability, energy and, above all, the grim determination never to give up, of Hiram Sibley and the men associated with him. He put his own capital and induced his friends to put theirs into the scheme, and he made every man who stood by him rich. For a long time, however, the company did not seem to be a success and Mr. Sibley had to meet with many a reproach from friends whom he had induced to join him. They thought they were ruined while, in reality, he was making fortunes for them.

The offices of the company at that time were located in the little building as above stated. The

secretary and treasurer's office occupied the second story front room.

All the financial and executive business of the company at that time was transacted in that one room by Isaac R. Elwood, the first secretary and treasurer, assisted by F. G. Ritso, bookkeeper, and W. B. Levet, clerk. Emery H. Falls was office boy. Up to this time Henry S. Potter was president. Subsequently Hiram Sibley, the second president of the company, occupied one of the back rooms as an office, and later the two back rooms were thrown into one and used for a directors' room. The directors' room had a rear door opening into a yard, back of which was a separate building fronting on another street which was used by the storekeeper for supplies.

One of the present high officials of the Western Union—Mr. John B. Van Every—entered the company's service in these offices. Mr. Van Every was in the auditor's department, which was on the next floor, in a room with front and rear windows. The check department also was in this room, and the assistant general superintendent had a desk near one of the front windows. Finally prosperity came with a rush. The stock went higher and higher, and so great were the profits that for a long time it was the custom of the directors to meet and pay a liberal cash dividend and then declare a stock dividend, often doubling the amount of outstanding stock. Excitement ran high in those days, and Rochester has never seen such times since. The efforts and strategy employed to secure stock when it was increasing in value every hour, and fabulous values were attributed to it, will never be forgotten by those who saw it from within. When it was hinted or surmised that a dividend was to be declared, investors and speculators were wild to possess it and the transfer book was kept in constant demand for days before it was closed. Many of the most valuable parcels of real estate in Rochester were purchased with this stock at greatly inflated values.

At that time there was no Atlantic cable in operation, so Mr. Sibley determined to make an overland connection with Europe, running up the western coast of Canada, through Alaska, under Behring Strait and then across the vast wilderness of Siberia. With characteristic energy he went to Russia, spent the greater portion of three years at the court of St. Petersburg, and finally obtained the necessary concessions for building a line through Alaska, then Russian territory, and across Siberia and Russia. The work was rapidly pushed forward. The poles had been erected from the north-western border of the United States almost to Alaska, wires had been strung for many miles, and the undertaking was nearing success, when one day a message came across the second Atlantic cable, and the Russian extension enterprise was dead. The long overland route could not compete with the direct submarine communication.

Before the Russian extension project was abandoned, the overland line to the Pacific coast had been built, special stock being subscribed for the purpose, for the work was accomplished under very serious difficulties. That line, built under almost

insurmountable obstacles, and the forerunner of the Pacific railroad proved to be a bonanza both for the contractor and for the stockholder. A good deal of the present wealth of Rochester may be traced to the investments therein made, while Cornell University at Ithaca, Sibley Hall in Rochester, Wade Park in Cleveland, and Creighton College in Omaha, each bearing the name of its generous donor, are to be traced to the large fortunes made from this venture. All honor to these men for their generosity to their fellow citizens! All of them are dead, but by these acts they still speak.

One of the last companies to enter the Western Union and help make it the success it proved was the New York, Albany and Buffalo Telegraph Co., which for years controlled the franchises of the New York Central and Hudson River Railroad Company and maintained its headquarters at Utica. It surrendered to the Western Union on January 1, 1864. A. Cole Cheney presided over its affairs in Rochester for many years.

The directors of the Western Union, elected in July, 1864, were: Hiram Sibley, president; J. H. Wade, vice-president; O. H. Palmer, secretary and treasurer; Anson Stager, D. A. Watson, George H. Mumford, Isaac Butts, Henry R. Selden, Samuel Wilder, Ezra Cornell, Thomas R. Walker, John Butterfield, Henry R. Shillingford, Perry McD. Collins, and Sanford E. Church. Edward Chapman was auditor, Rochester, N. Y.; William Hunter, purchasing agent and superintendent of supplies and tariffs, Cleveland, Ohio; A. H. Watson, storekeeper, Rochester, N. Y. The superintendents at the beginning of 1866 were: Anson Stager, general superintendent, Cleveland, Ohio; George W. Balch, assistant general superintendent, Rochester, N. Y.; Luther G. Tillotson (Erie Railway), New York; David Brooks, Philadelphia, Pa.; T. B. A. David, Pittsburg, Pa.; D. H. Fitch, Pit Hole, Pa.; Wm. C. Buell, Troy, N. Y.; Sidney B. Gifford, Syracuse, N. Y.; Edward P. Wright, Cleveland, Ohio; George B. Hicks (acting), Cincinnati, Ohio; John F. Wallick, Indianapolis, Ind.; Robert C. Rankin, Chicago, Ill.; George T. Williams, St. Louis, Mo.; Edward Creighton, Omaha, Neb.

On January 3 and 4, 1866, the superintendents held a series of meetings in the directors' room in Rochester, and all the superintendents were present except Creighton, who was on the plains and beyond reach. This was before the completion of any of the Pacific railroads. Col. R. C. Clowry, then in the military service, with headquarters at St. Louis, attended the meetings. General Stager presided, and Mr. G. W. Balch was secretary.

Of the fifteen directors of January, 1866, Samuel Wilder, of Rochester, is the sole survivor, and he has not been connected with the company for many years. Of the superintendents, only three remain in the service, and seven are dead.

Upon the retirement of Hiram Sibley, in 1866, Jephtha H. Wade was unanimously elected president. The most notable achievements during Mr. Wade's short administration were the acquisition of the lines of the United States Telegraph Company (of which William Orton was president and

the late James D. Reid secretary) and of the American Telegraph Company. Mr. Wade resigned in July, 1867, and was succeeded as president by William Orton.

The consolidated companies, consisting of the American and the Southwestern Telegraph Companies, afterwards consolidated with the Western Union, which brought into the Western Union service General T. T. Eckert, Dr. Norvin Green, A. B. Chandler, John Van Horne, C. A. Tinker, D. H. Bates and others.

Those now alive in New York who were transferred from Rochester to this city in 1866 are J. B. Van Every, vice-president and auditor of the Western Union Telegraph Company; Emory H. Wells, of the same company; A. H. Watson, now in other business, and George W. Balch, retired.

It will be of interest to note that there have been but six presidents of the Western Union Telegraph Company. Besides Messrs. Potter, Sibley, Wade and Orton above mentioned, Dr. Norvin Green and General Thomas T. Eckert have also held the office, the latter being the present incumbent.

How Newspaper Men Overcome Difficulties.

Because of his early experience as the first agent of The Associated Press in Colorado, George E. Lawton, or "Old Farmer Lawton," as he is more familiarly known, now the night manager of the Western Union Telegraph office at Denver, Col., is possessed of a fund of anecdote, humorous and pathetic, regarding newspaper men, in the telling of which he has an individuality quite his own.

"In my opinion," remarked the "farmer," "the most difficult feat ever performed by a Colorado newspaper man was by Ralph Meeker in 1879. Ralph was then editing a weekly paper at Greeley and received word of the Meeker massacre in which his father, who was Indian agent, and the other help around the agency had been slain by the Utes, and Ralph's mother and sister had been carried away in captivity by the Indians.

"Ralph lost no time in joining the rescuing party which had been sent out, but it was ten days or two weeks before they succeeded in rescuing the women, who were nearer dead than alive from exposure and the awful ordeal they had passed through, having been eye witnesses to the massacre at the post, where the aged father and husband had been so brutally butchered. To add to their sufferings, the women had to be transported over two hundred miles on horseback from the place of rescue to Alamosa, then the nearest railroad station, the trip being a test to human endurance, there being no roads and the mountain passes and rugged canons being almost impassable for horses in single file.

"However, the party finally reached Alamosa one evening about dusk, and while the good people of that town began to administer to the wants of Mrs. Meeker and her daughter, others endeavored to induce Ralph to go to bed and secure some much needed rest after his ten days in the saddle with scarcely any sleep, but Ralph heard that the train left for Denver at 6 o'clock in the morning. Limping over to the telegraph office, he wired his friend

Fred Skiff, managing editor of the old Denver Tribune, asking him to see Major Hooper, of the Rio Grande, and arrange transportation of the party to Denver.

"This Mr. Skiff attended to, and then requested Ralph to relate the story of the massacre and rescue to some one who would telegraph it to the paper. To this Ralph replied it was too horrible to be talked about, but that he himself would write it.

"The story, which he covered in three and a half columns and which I received from the wire—ah, well do I remember how my blood curdled while handling it. The operator at Alamosa who sent it to me said that Ralph only weakened or showed signs of great mental distress but twice in the four hours he was writing the horrible details. The first was when he reached that portion describing the sickening account of the death of his beloved father, even to the scalping process, which was done before life left the old gentleman's body.

"Then the great, big tears rolled down Ralph's cheeks and blinded him, but after a few moments' struggle against nature he proceeded until he got down to describing the horrible sufferings of his mother and sister during their captivity. Then he lost his self-control, and throwing his pencil at the stove as though it was an imaginary Ute, he arose and paced the floor of the little depot like a wild animal in a cage, and it was some time before he could control himself sufficiently to complete the first authentic account given to the world of that most horrible affair.

"It was a most inhuman trick that Walter Davis, of the Denver Post, played upon Frank White, of the Times. Walt used to herd sheep down in New Mexico and his animal instinct still causes him to leave plenty of daylight between himself and a cactus bush. But his cold-blooded nature prevented him from warning poor Frank from taking possession of one end of the tie table that was surrounded by a cactus bed. But Frank showed his mettle and never flinched until he had written about 1,200 words for his paper.

"Then it was plain to be seen that Frank was really in more misery than the poor wretch he had been watching burn at the stake, and it took about all the mustard plasters he could procure in the little town of Limon to draw the cruel stickers out through the top of his head. You know they work through and come out opposite from where they enter. I have since thought it was lucky for Frank that he is a man of short stature or he might be wearing sticking plasters in his hat yet.

"Joseph D. Barry, who died in Denver the past winter, probably took as many chances as the next fellow without getting caught. When Governor Waite sent the militia to Trinidad, Barry was with them when the train halted till daylight at a small station a few miles this side of there for fear of having a head end collision with a stick or two of dynamite; Barry wanted to get something to his paper in Denver. As there was no night operator at the station, and the day man lived in Trinidad, Barry turned to the good-natured conductor and asked him how many years a fellow would get for breaking into a Rio Grande depot. The conductor

smiled and said: 'None, unless somebody saw you.' Then Barry asked the conductor to please turn his head just a minute, and the next minute Barry's big foot went through the window with a crash, followed by an operator we had on the train, and that office was opened for business and continued to transact business until the other correspondents that were on the train asleep got badly scooped.

"Fifteen or twenty years ago when John C. Martin, at present news editor of the Rocky Mountain News, was city editor of the St. Louis Globe Democrat, he had a wonderfully smooth way of getting around little difficulties and securing a piece of news, and while he is a few years older now, he still retains that knack. Do you know it was only a short time ago he came to me and borrowed a pair of linemen's climbing spurs in order to send a reporter up a forty-foot telephone pole adjoining a three-story building where a certain meeting was being held and from which reporters had been barred?

"Did he secure the information? Did he? Well, I should say he did, and if it was not for the fear of being accused of being an accessory to that diabolical scheme by ladies that composed that political meeting, that he was so desirous of having correctly reported, I might give you the date it was published."

The "Teloptoscope."

Philip K. Stern, a mechanical and electrical engineer says that he has perfected and now has patents pending for an apparatus for the transmission of optical images in colors. The device will be known as the "teloptoscope."

The principle upon which the thing works is this: The transmitter is focused upon the optical image to be sent. The luminous rays are transformed into electric impulses and sent to the receiving end over an ordinary telegraph circuit. One additional wire is necessary, however, for manipulating the receiving apparatus. The electric currents are again employed at the distant end to vary the intensity of the ray of light which is thrown onto the receiving instrument. The variations of the beam of light at the receiving station correspond to the light and shadow at the transmitting station. The picture so received will be in one color, but by an arrangement of three colored screens the apparatus will be made to reproduce the proper tints. If it is desired to photograph the view reproduced all that is necessary is the placing of a dry plate on the receiver. By this means photographs may be taken in any part of the world of objects in any other part.

Working at High Pressure.

Just how great are the powers of endurance of the army of brokers, cashiers, clerks and messengers who are running the machinery of the great Wall street speculation remains to be seen. Employees and telegraph operators have been working for weeks from early until late at night. As records for daily transactions have been smashed, the burden of their duties has grown until it has become

necessary to labor well into the following morning.

New York downtown hotels and restaurants have had a great boom from the heavy Stock Exchange business. When employees are forced to work past the dinner hour their firms allow them from \$1 to \$2 for the meal. Houses that deal liberally with their clerks give from \$3 to \$5 for overtime up to midnight.

The recent boom has also appreciably increased the business of the telegraph companies. The wires have been hot with orders, instructions and questions from all parts of the country. Extra men have been put on and the main offices are running at high tension.

The Telegraph Service in the South African Campaign.

In the course of Lord Roberts' report on the services of the various units of the forces acting in the South African military operations, a meed of praise is awarded to the telegraph service establishment under the supervision of Lieut-Col. R. Hippsley, R. E. After stating that "no portion of the army has had more work of greater responsibility than this branch," Lord Roberts proceeds:

"With a personnel of twenty-five officers and one thousand two hundred and twenty one operators, linemen, etc. (of whom four officers and one hundred and fifty three men have died or been invalided), nearly two and a half millions of messages have been dealt with during the past thirteen months, some of them containing as many as four thousand words. The telegraph systems taken over, repaired, and maintained exceed 3,300 miles in length, with over 9,000 miles of wire. In addition, 959 miles of air line have been erected and 1,145 miles of cable laid. Great credit is also due for the quick way repairs to the lines, so frequently interrupted by the Boers have been carried out. This is a most dangerous service, as there is always a chance that the enemy may be lying in wait near the break, but there has been throughout the most unhesitating promptitude in its performance. The young officers in charge of cable carts have also often had perilous work to perform when winding back their wire, alone or with a very small escort."

National Standardizing Bureau for the United States.

The bill establishing a National Standardization Bureau passed both Houses of Congress. The functions of the bureau will consist in the custody of the standards; the comparison of the standards used in scientific investigations, engineering, manufacturing, commerce and educational institutions with the standards adopted or recognized by the Government; the construction, when necessary, of standards, their multiples and sub-divisions; the testing and calibration of standard measuring apparatus; the solution of problems which arise in connection with standards; the determination of physical constants and the properties of materials, when such data are of great importance to scientific or manufacturing interests and are not to be obtained of sufficient accuracy elsewhere.

You can't afford to be without TELEGRAPH AGE.

The Funeral Services of James D. Reid.

The funeral services of the late James D. Reid, whose death was announced in our previous issue, held on April 30 at the Fifth Avenue Baptist Church, New York, of which he had been an attendant, were of a character well suited to the bright, cheerful and optimistic temperament of the deceased; their whole tenor being free from all funereal aspect were doubtless just such as Mr. Reid himself would have chosen. As the Rev. Dr. Henry M. Sanders, who delivered the chief address, well said in the course of his excellent remarks, abounding in many beautiful and happy expressions, it was not "good by" to Mr. Reid, but rather "good morning," for he had but just begun to live.

The attendance at the church was large, and a spacious section was reserved for the telegraph fraternity. It was a representative gathering in the best sense, for it embraced all departments of the telegraph service from the highest officials down through all of the grades, brought thither by a desire to render a last tribute of respect and love universally felt for a beloved and elder friend—the "Father of the Telegraph," indeed, whose pathetic dying words, "Give all the telegraph boys and girls my love," had awakened a responsive chord in every heart. The telegraph representatives were the first to pass up the aisle to take a last look at the deceased, whose casket was placed amid a bed of flowers in front of the pulpit.

The floral offerings were numerous and beautiful. The telegraph fraternity sent a magnificent standard of cut flowers several feet in height, which was given a prominent position at the front corner of the pulpit platform. A beautiful wreath of oak leaves was the gift of the Magnetic Club, while within the coffin was placed some lovely flowers sent by Miss Nellie B. Hope, daughter of H. C. Hope, of St. Paul, Minn.

In the absence of Dr. Robert S. MacArthur, the pastor of the church, who was ill, the assistant pastor, Rev. S. W. Richardson, opened the services with prayer, followed by the reading of the Scriptures, the selection being the thirteenth chapter of First Corinthians, Mr. Reid's favorite. After this came a contralto solo, and then Mr. Walter C. Burton spoke, paying a simple, earnest and eloquent tribute to Mr. Reid from the viewpoint of the telegraphers. He said in part:

"The wonderful century which has just closed gave many remarkable inventions to mankind, but it gave none that surpasses in marvelous power and usefulness, the one with which the life of our departed friend was so closely identified. Almost from the time of its initial discovery surrounded by the skeptical and the scoffing, all through the years down to the present time, when, amid the applause of men, it has come into such universal use and necessity that it may truly be said to be the right hand of commerce. Mr. Reid became associated with the electric telegraph in 1845, in its earliest days of practical utility, and a warm and beautiful friendship soon sprang up between him and Professor Morse. That never to be forgotten first message, 'What hath God wrought,' seemed to take

hold upon Mr. Reid with wonderful and subtle force, and his whole life was inspired with the desire and purpose that in his own life God might be the ruling force; and of a truth in him was wrought one of God's most noble works, a man loyal and true to every high ideal.

"To the younger generation of men and women of the telegraph who were never privileged to look upon the face of Professor Morse, it has seemed for many years as though we saw him, the nobility of his character, the simplicity of his mind, and the aspirations of his heart revealed to us in the person of his life-long friend and associate, James Douglas Reid. I remember with peculiar pleasure the joy and satisfaction with which Mr. Reid expressed his pleasure that the name of Professor Morse stood high up among the list of American immortals chosen for the Hall of Fame.

"It is not given to many men to be a pioneer in the development of one of the most efficient, useful, and far-reaching agencies for the advancement of civilization and the progress of the human race, but to Mr. Reid does this great honor fittingly belong. He was the early friend and associate of Morse, he was the first telegraph superintendent in this country, and published the first electrical journal in the world. As the editor of the Journal of the Telegraph he advocated and was chiefly instrumental in organizing the Telegraphers' Mutual Benefit Association, the first co-operative, fraternal insurance association in this country.

"If the dream of philosophers and poets is ever to be realized in the dawning of a day when all men shall be brothers and peace shall rule o'er all the earth,

'Till the war drum throbbed no longer, and the battle flags were furled,

In the parliament of man the federation of the world,'

I believe it will be due in large measure to the influence of the electric telegraph, which has been singing these many years the song of universal peace, and has brought the nations of the earth so close together that the barriers of mountain, sea and valley have been overcome, and with the annihilation of natural barriers have come better human understandings. Mr. Reid seems to have grasped in unusual degree these characteristic forces of the telegraph, for what is true of it in a general sense was true of him in an individual sense, and all his life he not only preached the Brotherhood of Man, but what is far better, his heart went out in sympathy and love to all mankind.

"His was a unique place in the hearts of telegraphers. He was familiarly known for many years as the 'Father of the Telegraph,' not, I think, because he was so early associated with it and was the friend of Professor Morse; not because he was the first telegraph superintendent; not because he published the first electrical journal, but rather, I think, because of his large and generous measure of helpful human sympathy, which took hold upon the hearts of telegraphers everywhere. And as the years fell softly upon him he grew to be to us as a father, so sure were we of the love of his heart and the desire of his life to help us and stimulate us to high and

noble ideals. The relationship had in it much of the tenderness of a father to his children, and how true this was is fittingly and tenderly demonstrated by almost his last words. As his illness progressed toward its close, the cloud was, for a brief interval, graciously lifted from his mind, and he uttered a father's benediction, 'Give all the telegraph boys and girls my love.' Our heart's sympathy goes out to his sorrowing family. Our prayers and tears are mingled with their own, for we, too, are conscious of a most grievous bereavement.

"Men have different standards by which the success of a man's life is determined, but to my mind there can be no better standard, no truer test than the love and esteem of thousands of one's fellows. Judged by this standard, Mr. Reid's life was a glorious success. Better far to be cut off in early manhood, mourned by thousands, than to totter to one's last resting place at four score years and ten, without the falling of a tear; but better still, and a signal mark of the Father's loving favor, to fall asleep as did our well loved friend, at the ripe age of 82, mourned by every person who ever knew him, and enshrined in the hearts of tens of thousands of his children, the men and women of the telegraph.

'Now the laborer's task is o'er,
Now the battle day is past,
Now upon the farther shore,
Lands the voyager at last.
Father, in Thy gracious keeping
Leave we now Thy servant sleeping.'

Mr. Burton's remarks were followed by an address by the Rev. Dr. Sanders, already referred to. At its conclusion another musical selection was rendered, after which the exercises were brought to a close by prayer by Dr. Sanders.

The telegraph profession was represented by the following: Gen. Thomas T. Eckert, Thomas F. Clark, J. B. VanEvery, Jas. Merrihew, W. C. Humstone, Chas. A. Tinker, William Holmes, Wm. J. Dealy, W. C. Burton, John Rathbone, Wm. L. Ives, T. P. Scully, J. K. Calvert, W. F. Lewis, P. Collins, Robert Morton, R. Ferguson, R. J. Murphy, A. A. Offutt, A. M. Guest, H. A. Sauer, T. A. Brooks, J. H. Montgomery, J. McParlan, M. H. Kerner, D. J. Willis, C. A. Hicks, W. J. Austin, D. W. McAneeny, J. W. Connelly, B. J. Crowley, F. A. Stumm, R. G. Page, E. H. Falls, W. D. Schramm, H. H. Ward, G. W. E. Atkins, Miss F. L. Daily, Miss K. Donovan, Miss Anna Brown, Mrs. M. E. Randolph, Miss Halsey, John Brant and wife, G. A. Stimson, W. H. Baker, C. P. Bruch, Isaac Smith, Geo. Clapperton, M. M. Davis, S. A. Coleman, J. F. Cleverdon, F. C. McKiernan, Edward Reynolds, J. Wintrup and J. A. Chapman, Philadelphia, Pa.; A. Weller, Milwaukee, Wis.; A. P. Eckert, M. J. O'Leary, D. R. Downer, G. A. Hamilton, Wm. Marshall, Wm. Maver, Jr., J. McKenzie, J. A. Henneberry, J. M. Phalen, Dr. W. J. Davis, L. F. Dowling, J. B. Taltavall, J. R. Beard. Among others present were Mr. and Mrs. John D. Rockefeller and Mrs. William Rockefeller.

Following the funeral services in New York brief services were held in Rochester, N. Y., Mr. Reid's old home, and whither his remains had been taken

for interment, on the afternoon of May 1, at the home of Mrs. Wells Baley, 22 James street. Rev. Dr. A. H. Strong, of the Rochester Theological Seminary, officiated. The burial was in the family plot in Mt. Hope Cemetery in that city.

A TRIBUTE TO JAMES D. REID.

Dear friend, thou art not dead, nor lost to us
Thy loving sympathy. Nor changed to us
The human hearted man we loved. We know,
For life, did God immortal youth bestow.

By faith we learn the truth, before unknown,
That life and love can never lose their own!
Thou art removed; thy form we cannot see,
We only know that heaven is glad for thee.

When light dies out of creeds, the fact survives;
None doubt the Christ shown forth in holy lives,
The charm of Grace revealed in smile and tone,
Transforms a life to beauty not its own.

Thy life shone forth with love's unconscious ease;
Thy spirit held all gracious courtesies.
Thou had'st a sense of things most pure and true.
From love Divine thy soul rich fragrance drew.

Dost thou not know our feet with weary tread,
Are hastening to the goal where thou hast led?
And when we reach at last the pearly gate,
Will thy dear welcome our glad souls await?

O winds of heaven, and sweet translucent streams,
O songs of birds that voice all nature's dreams,
O stars that mark the pathways of the night,
O radiant moon that shines with borrowed light,

O sun with matchless splendors all thine own,
O glorious sunsets—trembling from the throne
Of joy and gladness—glowing rainbow dyed;
Make these deep thoughts within our hearts
abide,—

"The dear Lord's best interpreters, are humble human souls,
The gospel of a life like his, is more than books or scrolls."

—MRS. M. E. RANDOLPH.

History in Scraps.

Mr. N. M. Booth, of Evansville, Ind., the nestor of all telegraphers in Indiana, has just completed a scrap book that will be of decided interest to the members of his profession. He will send it as a contribution to The Telegraphic Historical Society of North America, the next meeting of which convenes in New York, May 22. The book contains much of interest in the history of the telegraph in Indiana and Kentucky. A story of the building of the first line in Kentucky, and how many bright people of that time were dubious of its results, is included in the book. There are personal reminiscences of some of the old timers in Indiana and Kentucky, together with portraits of men in the newspaper work and well-known in telegraphic circles. Altogether it is one of the most interesting bits of work that Mr. Booth has ever undertaken.

LETTERS FROM OUR AGENTS.

To Our Correspondents.

While we are desirous to receive from our agents letters for publication respecting their various offices and of their personnel, for all efforts of this character are appreciated, we would earnestly request that such communications be confined strictly within the limits of the subject, and not so much space be devoted to hunting and fishing items and other extraneous matter, as is frequently the case. We wish to make the department of "Letters from our Agents" an attractive one, but if we were to publish all that comes to us in the shape of irrelevant matter, of no possible interest to the general reader, it would frequently require us to surrender a number of additional pages to contain it all. The current information of any office will, if carefully chronicled, furnish a welcome digest of news that will be read with pleasure and satisfaction by thousands, and this limit should be the legitimate contents of all letters. And we wish that our correspondents would avoid the too frequent habit, at all times a bad one, of abbreviating words in writing. This is a peculiarity among telegraphers, we know, but what may be plain to the writer, and for local interpretation, is usually a mystery to the editor, and is apt to lead to error in the printed statement.

ST. LOUIS, MO., WESTERN UNION.

Mr. Jacob Benedict returned to work April 18 after an illness of two weeks.

Mr. Milo Orr, of Ft. Scott, Kan., on his way to Little Rock, Ark., was the guest of Mr. George J. Goehringer April 16.

Miss Mamie McLaughlin and Mr. William Carey returned from Hot Springs, Ark., where they were helping out, April 24.

Departures: Mr. Frank Gorosky for Galveston, Tex., and Mr. Raymond Alger for Springfield, Mo.

Mr. A. M. Trauernicht, agent for the Iron Mountain & Southern Railway Company at Middlebrook, Mo., was a visitor April 19.

Miss Mamie Flaherty, a sister of Miss Agnes Flaherty of the Wheatstone, and Mr. T. F. Toohey were married April 23.

Miss Annie Tynan, the popular Planter's House operator, and Mr. James Coakley were married April 24. They will make their home in the Indian Territory.

Miss Nellie Frazier is enjoying a vacation at Harman, Col.

The Fair grounds race track Western Union office was opened recently with Chas. W. Jost in charge, John J. Murphy describing the races, George J. Goehringer and T. E. Gilbert operators, Walter Jost, messenger, and Walter L. Roberts and John T. Brophil as race correspondents.

The promptness with which wires can be rescued from the wreck and debris consequent upon a fire and an impromptu telegraph office established, was recently illustrated by Assistant Wire Chief L. N. Boone and Foreman of Linemen James W. Jones, assisted by a half dozen linemen, immediate-

ly after the fire at the National League Baseball Park, St. Louis. Hardly had the flames subsided when several of the wires were dragged from among the fallen timbers, some boards secured, several box relays attached, and a board erected with the following roughly lettered sign thereon: "Temporary office of the Western Union Telegraph Company." A game was being played at the time of the fire, and operators Jos. B. Holle, Wm. Throe, Al. Hawley, Mike O'Neil and W. H. Johnson escaped without injury, saving all the instruments.

ST. LOUIS, MO., POSTAL.

Mr. F. E. Ryan and Miss Maria Toholska were married April 18.

Arrivals: Miss Matilda Genevieve Seeger, from the Western Union; Miss Lydia Heideman, from the Cotton Exchange; H. C. Hornady, J. A. Latture, R. H. Caldwell, W. B. Powell, G. E. Evans and W. A. Boyer.

W. G. Talum returns after a two weeks' absence.

KANSAS CITY, MO., WESTERN UNION.

Our local electrician, Mr. W. M. Wood, is again at his post of duty after a month's sojourn in Houston, Tex., at which place he assisted Mr. J. C. Barclay in installing a dynamo plant and paraphernalia of a thoroughly up-to-date telegraph office.

Messrs. Harry and Bert Hall have the profound sympathy of all in the loss of their father, whose death occurred on April 26.

A new branch office has been opened at the Baltimore Hotel, with Miss Nannie Clapper as manager and Mr. J. S. Woods night operator.

Mr. J. F. Roper is confined at his home, having suffered paralysis of his entire right side. We are glad to learn he is improving and has excellent chances for ultimate recovery.

Mrs. Sarah F. Duncan and Mrs. E. A. Dyer are again with us after several years' absence, and the remark goes round, "It seems more like the Kansas City office now."

Other arrivals are Emma H. Stewart, Robert McGregor, G. E. Whitaker, Richard Wagstaff and Claude Reed.

Mr. "Nick" Burke, well known in telegraph circles, is just out of the City Hospital, having recovered from a severe sickness. J. M. Barnes, a familiar figure among the fraternity, was a recent caller.

CHICAGO, ILL., WESTERN UNION.

Mr. George E. Dunning, formerly assistant day chief operator, accepts the position of night chief operator, succeeding C. L. Clevenberg, resigned. The night boys are rejoicing at the return of Mr. Dunning, who is well liked by all.

Mr. C. L. Clevenberg, night chief operator, resigned to go with Schwarz, Dupree & Co., Chicago, as manager of their leased line business. We are sure Mr. Clevenberg will prove a valuable aid to the firm. His record is first class and his qualifications are unexcelled, he being a thorough electrician, also possessing executive ability. Mr. Clevenberg's refined, genial and kindly personality is missed by all, and we feel as though a friend has been taken away.

Tuesday evening, April 31, the boys of the night

force and some of the day force congregated around Mr. Clevenberg's desk, while Wire Chief Springer made a presentation speech in well chosen words and handed to Mr. Clevenberg a beautiful diamond ring purchased by the boys. Mr. Clevenberg made a nice little speech of acceptance, and was then given three rousing cheers.

Mr. O. G. Fisher has been appointed to succeed Mr. Finley as assistant on the loops with Mr. Goslin. Mr. Fisher's appointment was a judicious one, as he is well versed in the secrets of quad tangles, etc. He is a modest and courteous gentleman, and for five years worked as wire chief in Cleveland, Ohio.

Mr. Oscar L. Carson was given a trial on the west board nights, and he displayed such marked ability that the night chief operator appointed him wire chief at the west board on the all night trick. Mr. Carson is a promising and energetic young man, and will doubtless become a first class wire chief.

Mr. Charles F. Fuhrman, appointed assistant wire chief west board, was formerly assistant to James Cummins, of the St. Paul division. Mr. Fuhrman is another good selection, as he has not only proved himself a gilt edge operator when working a wire, but proved a valuable aid while acting assistant division chief, and has quietly acquainted himself with a deep knowledge of wire work and the intricate workings of instruments.

Mr. Charles J. White, appointed assistant to Mr. Cummins, of the St. Paul division, and who succeeded Mr. Fuhrman, has shown his ability as a first class telegrapher while on the first St. Louis wire. He is another good selection and promises to become a valuable official.

Messrs. Otto Enking and Chas. Fuhrman made a thirty minute run to Maywood, Ill., a couple of Sundays ago on a tandem. Maywood is twelve miles distant, and considering the not over good roads, the run was a clever one. They called on F. E. Abbot, who was injured a short time ago, and found that gentleman much improved.

Mr. Evan Jones, of the signal department, has the sympathy of all in the death of his sister.

Mr. John Kemp, west board wire chief, has returned after a siege with the grip.

R. W. Stimers has resigned to accept a position in the West.

Visitors: F. A. Mohr, manager at Davenport, Iowa, who came on to attend Frank Riordan's funeral; Mrs. McCullough and Mrs. Kate Murray, of Milwaukee, and Miss Hart, of Springfield, Ill.

NORFOLK, VA., POSTAL.

Few changes have occurred at this point for some time, and items of interest are scarce.

Assistant Manager Skirrow, of New York, paid a short visit to this office recently.

Mr. W. V. Hill of Richmond, but more recently of New York, has accepted the position of night chief operator made vacant by the resignation of Mr. E. L. Wood.

Mr. H. B. Smith has resigned to accept a place with the Southern railway.

Mr. George M. Barrett, of this office, is now located at New York.

BOSTON, MASS., WESTERN UNION.

The annual meeting of the Telegraphers' Purchasing and Savings Association of this city, was held in Young's Hotel, April 28. A dividend of 18 per cent. for the previous six months was declared. The capital stock was increased from \$5,625 to \$10,000. The following officers were elected for the ensuing year: President, F. T. Viles; vice-president, F. E. Wolfe; treasurer, A. V. Losea; secretary, P. T. Haggerty. Executive committee: C. W. Henderson, C. H. Morse, J. H. Driscoll, A. W. Austin, C. G. Pond and J. T. Hart.

Mr. T. R. Finan, assistant wire chief, is filling in the duties of the late Chief Frank Stevens, with George Cunningham as assistant, temporarily.

Mr. Harry Waters has joined the cable force with Manager Deveraux at Duxbury.

Many changes and promotions have occurred in the personnel of the force of late. Some of the fortunate ones to be advanced are J. F. Logan, T. W. Cummings, J. H. Hannon, J. C. Smith, A. E. Buswell, P. J. Farrell and O. S. Chambers.

Mr. Lou Flynn recently made a hit as end man in minstrelsy with the Asquam Club.

Frank Stevens, for the past twenty years chief operator of the Western Union at Boston, died at his home in Chelsea, Mass., April 28. His health began failing about three months previous to his demise, but he kept to his duties until March 27, when he was compelled, by a gradual weakening of the system, to retire to his home. His death was due to heart failure and a complication. Mr. Stevens was of a genial and companionable disposition, beloved by all, and will be greatly missed. He was born near Concord, N. H., in 1843, and was an operator during the Civil War for the American Telegraph Company. After the consolidation with the Western Union he was transferred to the Boston office in 1866. He was day report operator on the famous old New York and New England Associated Press circuit No. 4 for many years. At the time of his death he was a member of the Old Time Telegraphers' Association, one of the executive committee of the Telegraphers' Purchasing and Savings Association, a charter member and vice-president of the Electric Club and a life member of the Columbian Lodge, F. and A. M. of Boston. His funeral was held from his residence at Chelsea on Thursday, May 2, and was largely attended by the fraternity of Boston. Some of those who attended were C. W. Henderson, manager of the Western Union; J. A. Dougher, traffic chief; F. T. Viles, inspector of branches; All Night Chief J. B. Colson, R. L. Stevens, O. L. Barron, M. C. Harrington, Cashier J. H. Wentworth and G. MacBride.

INDIANAPOLIS, IND., WESTERN UNION.

Arrivals: W. C. Rogge, P. F. Ryan, J. P. Freeman.

Departures: H. L. Duckett, B. Ronsheim.

Mr. Arthur Crane, recently of check force, has been assigned to the Atlas Engine Works branch office.

Mr. James Kennedy, night operator at Dennison Hotel, has been transferred to the main office.

Mr. Patsy Barrett officiates at Washington Park during baseball games.

NEW YORK, POSTAL.

The New Century keys recently introduced here have made quite a sensation, and some wonderful records for speed on them are reported. Messrs. Price and Murphy days, and Driscoll, nights, the stars of the first Boston piece work circuit, are using the new key exclusively, and speak highly of it. Mr. Price sent 297 messages to Boston on April 23 in 254 minutes, a trifle over 70 messages per hour, for 4½ consecutive hours, a notable record.

The newspaper offices say the new keys are in favor. Mr. Joseph F. Ahearn, the speedy sender of the Journal office, has taken one to Lakewood, N. J., for use in reporting the golf tournaments there. It looks as if this key is a good thing for operators, especially those on heavy circuits.

Mr. J. J. Hyer, for a long time at the Cotton Exchange office, has been transferred to the Western division, main office, and Mr. T. E. Doyle from the Western division has been assigned to Mr. Hyer's place at the Cotton Exchange.

Resignations: Messrs. Charles Goldstein and J. J. Horner. The former accepts a broker's position in New York, and the latter goes to Philadelphia.

R. M. Sinclair left for Cape Cod, May 11, to accept a position with the French Cable Company at that point.

G. T. Neece, who recently arrived, and who was formerly with The Associated Press at Helena, Mont., has been assigned to the Buffalo bonus wire.

Mr. Joseph A. McNulty, Eastern wire chief, and Miss Eleanor J. Walthery, of Paramus, N. J., were married on April 21. The best wishes of the whole force go with them.

PHILADELPHIA, PA., POSTAL.

With house hunting and wedding preparations, Mr. Jay A. Thomas is a very busy man. The happy event is soon to take place.

After considerable delay and difficulty the Postal office at Pottsville, Pa., was finally opened to the public, with Mr. C. W. Stager, an experienced and popular man, in charge.

Mr. Wm. L. Sharpley, train dispatcher of the New York, Philadelphia and Norfolk Railroad, from Cape Charles, Va., favored this office with a visit.

Another distinguished visitor was Mr. F. W. Jones, of New York, electrical engineer of the company.

The latest report from our friend Wm. V. Madden, formerly of the first New York local, locates him in Denver, Col., and doing well.

After spending many months in the West, Mr. J. B. Cleaver has returned to his home at Bethlehem, Pa., at the urgent request of his parents. Mr. Cleaver, shortly thereafter, came to this office, where he is now working extra.

BALTIMORE, MD., WESTERN UNION.

Mr. W. M. Mallonee has been transferred from the American District Telegraph Company to be manager of office in Calvert Building, vice Alex. Moore, transferred to the managership of office in dry goods district; Herman C. Emrich from the

Postal, and H. E. Galloway from Greenville, S. C., have been appointed day operators in the main office.

Mr. George Kelly has resigned to accept a position with a broker.

Recent visitors, former members of the force: John Church, Washington, D. C., and "Farmer" Pratt, Singerly, Md.

NEWPORT, R. I.

"Ned" Doven, of telegraph fame, and always noted for being a good operator, who has been working in Washington the past winter, arrived here May 1 to resume his old position as operator for Ullman Bros., New York stock brokers, who have opened their office here for the summer.

ASSOCIATED PRESS NOTES.

Mr. W. O. Coffin has resigned from, and Mr. W. B. MacMahon has been appointed to, the New York bureau.

At the Hartford, Conn., bureau Mr. W. La Jeunesse has resigned, and Mr. W. A. Adams has been appointed.

The resignations of Messrs. J. F. Sturm and W. T. Shields, of the Albany bureau, are announced, together with the appointment there of W. A. Andrews.

DES MOINES, IOWA.

Mr. R. W. Skeels has been appointed manager of the Postal Telegraph-Cable Company at Grinnell, Iowa, vice W. C. Burd. Mr. Skeels is a fine operator and renders satisfactory service. He says he likes the AGE.

NEW YORK, WESTERN UNION.

Mr. W. Walker, formerly of the Commercial News department, and now a telegraph reporter on the floor of the New York Stock Exchange, was married to Miss Nellie Dunn, of Clark's department, on May 1. Many telegraph friends were present. Professor Callahan, of this office, furnished the music at the wedding reception.

Mr. Albert E. Sink, manager of the operating department, has returned after a brief vacation.

Mr. Joseph L. Edwards, of the Philadelphia

STATE OF OHIO, CITY OF TOLEDO, }
LUCAS COUNTY, } ss.

FRANK J. CHENEY makes oath that he is senior partner of the firm of F. J. CHENEY & CO., doing business in the City of Toledo, County and State aforesaid, and that said firm will pay the sum of ONE HUNDRED DOLLARS for each and every case of CATARRH that cannot be cured by the use of HALL'S CATARRH CURE.

FRANK J. CHENEY.

Sworn to before me and subscribed in my presence, this 6th day of December, A. D., 1886.

{ SEAL }

A. W. GLEASON,

Notary Public.

Hall's Catarrh Cure is taken internally, and acts directly on the blood and mucous surfaces of the system. Send for testimonials, free.

F. J. CHENEY & CO., Toledo, O.

Sold by druggists, 75c.

Hall's Family Pills are the best.

printer circuit, who has been ill with grip* for a month, has returned to work.

Mr. Perry F. Irish, who has been confined to his room for three months, expects to return to work in a couple of weeks.

Mr. Fred. Catlin, of the quad department, went away May 7 for a vacation of six weeks.

Mr. Fred. O. Nourse, general traffic chief, who has not been well for a long time, left May 10 for a two months' sojourn at his old home at Littleton, N. H., where it is believed he may fully regain his health. Mr. W. E. Rath, traffic chief of the eastern division, will act for Mr. Nourse during his absence.

Mr. Thomas M. Brennan, assistant manager, with his family, took a few days' trip to Washington, D. C., on pleasure bent.

Mr. Harry S. Pearce, who has worked the Charleston, S. C., wire for some time, has been promoted to assistant traffic chief, and Mr. A. A. Lopez, who has worked the Detroit wire, has been advanced to the quadruplex department.

Dr. Charles A. Brooks, a well-known old timer in the West, now of this office, was married in Brooklyn, N. Y., April 29, to Helen C., daughter of Henry Preston, of New Haven, Conn.

Mr. Charles H. H. Cottrell, so well known in associated press circles, and as a member of the Red Cross Society, has once more joined our ranks at this office. Mr. Cottrell is one of the gilt-edged operators of the country.

Mr. P. T. Brannigan has been appointed manager of a new office opened May 1 at 231 West 116th street.

Mr. J. T. Murphy, of Armour & Co.'s Duane street office, leaves for a trip to Chicago, on June 1. On his return trip he will visit the Pan-American Exposition at Buffalo.

Room H4, fourth floor, which has been occupied for a long time by "Andy" Gillman as a carpenter shop, will hereafter be used by the Telegraphers' Mutual Benefit Association. This move was made necessary by the demand for space on the second floor.

Miss Nellie T. Calver has been absent for ten days on account of illness.

Mr. J. F. Paddock is quite sick at home.

Mr. Oscar McCullen, late of the Western Union, Richmond, Va., and now manager for the Baltimore and Washington districts, of Whitehead Hoag & Co., of Newark, N. J., was a recent caller.

Since May 1 Messrs. J. G. Hoffman, J. H. McNamara, H. M. Herrington, H. E. Stokes, P. A. McGriff, J. P. Duckworth, and B. C. Welp, have been added to the waiting list. J. J. Phelan and Thomas Nolan have returned from the South. Mr. C. J. Rath and Miss R. Alexander have been added to the regular force, and Mr. E. Gregorovius made junior operator.

Apropos of the death of Mr. J. D. Reid, a small pocket diary showing the signatures of thirteen who subscribed, October 20, 1877, \$250 to clean and repair the Morse statue in Central Park was shown around the office. The names are: William Orton, James D. Reid, J. H. Wade, Henry Bentley, Anson Stager, Tracy R. Edson, Cyrus W. Field, Samuel J. Tilden, Wilson G. Hunt, Marshall O. Roberts, Moses

Taylor, Andrew Carnegie, and Peter Cooper, all of whom are dead with the exception of Mr. Carnegie. It would be hard to find men more prominent in the financial world at that time than many of those named. All of the original messages received by Professor Morse at the time of the testimonial given at the Academy of Music, June 11, 1871, were shown to your correspondent recently. They belong to Mr. Frank D. Giles, assistant night manager.

All popular music at less than half price. "Utopian Waltzes," "Whirlwind March," "Ben-Hur Chariot Race," "Belle of Manhattan" March and Two-Step, "When You Were Sweet Sixteen," "My Old Virginia Home," "Left On the Battlefield," "Dolly Gray," "The Sweetheart That I Loved In Boyhood Days," "Spider and Fly," 18 cents each. "Palms," "Popular Gems," "Lang's Flower Song," "Calvary," "Rusticana," 10 cents each. Pianos—all prices—sold \$1.00 per week. B. L. Brannan, 195 Broadway, New York. (Adv.)

The 1901 Alexander word-counter, \$3.00. Others, \$2.00 up. Typewriter repairs at reduced price to operators. Machines bought, sold and rented. New typewriter, just out, \$25.00; send for catalogue. Wall & Butler, 57 Dey street, New York. (Adv.)

DENVER, COL., WESTERN UNION.

Arrivals: Mr. Raleigh, from the cable office in New York, on straight night trick; Mr. Darling, from Vancouver, B. C.; Mr. Fipps, from Texas; Mr. Johans, of Helena, Mont.; Mr. Spencer, from the Postal, Dallas, Tex.; Mr. McDonald, from the Postal, Denver; Mr. Corum, from a broker in this city; Miss Noel, from a broker's office, Colorado Springs; Mr. Killick, from the Western Union, Kansas City, Mo.; Mr. House, from Albuquerque, N. M.

Miss Davy officiated as Colonel Brooks' stenographer during the absence of Miss Jeanie McCreary called to Ohio on account of sickness in her family. Mr. Henry Mandles has returned to work after a two months' tour in the East. Mrs. Hilliker, who has been very ill for the past four months, called at the office a few days ago. She expects soon to be able to resume her position in this office.

Mr. Harry Thomas has gone to Las Vegas, N. M., relieving Manager Birdsall temporarily, who is in the East on a vacation.

Mr. L. A. Cristler left for Silverton, to act as manager and take a much-needed rest. It is thought the change from city to country life will be very beneficial to his health. Mr. Harry Madison has been absent a few days on account of a slight attack of rheumatism. Mr. Wm. Dunaway, who has been spending a month with his father in California, returned to work May 1. He reports a fine time and expects soon to permanently locate out there. Mr. James Masden has been appointed official baseball reporter for the season. Mr. Fred. Wessel, who went to Clayton, N. M., during the Black Jack hanging, made a reputation as a code operator, handling over twenty-five thousand words during the short time he was there.

Our night chief, "Old Farmer" Lawton, has had so many offers to go on the reporter staff of the Denver papers since his recent story published all over the country of "Old Time Newspaper Correspond-

ents," which appeared in last issue of the AGE, has to work overtime to answer them. We would not be surprised to hear of the "Farmer" competing with J. Whitcomb Riley, in the field of poetry.

Mr. J. E. Jenkins, assistant chief operator, left for El Paso, May 5, to assist in the removal of the office at that point.

Mr. Alexander, who has been on the sick list for the past three months, returned to work on the 8th inst.

SEATTLE, WASH., WESTERN UNION.

The personnel of this office is as follows: Eugene Hockett, manager; Chas. Baxter, chief operator; P. A. Cook, assistant chief operator; H. R. Sanderson, night chief operator; W. R. Barker, all night chief. Operators: J. L. O'Rourke, S. T. Gloor, F. L. Dyas, J. F. Holder, L. Wheeler, C. Nutter, C. T. Bell, Jas. A. Weeks, E. C. Warren, John McDonnell, J. F. Johnson, C. C. Willis, Miss Youmans. Clerical force: Geo. H. Hedrick, cashier; M. F. Power, transfer clerk; F. H. Woodward, delivery clerk; Geo. Brown, assistant delivery clerk; C. M. Jones, counter clerk; R. H. Moulton, night clerk; Andrew Pawlesek, copy clerk; Miss Helena Peterson, telephone clerk. Bookkeepers: Misses Reba Brown, Edythe Brown, and Matilda Brown. Check boys: A. Vopni and Laird Wray.

Sick list: E. C. Warren (late manager at Parkersburg, W. Va.), relapse of malaria fever; Geo. H. Hedrick, cashier, on a vacation in California for his health.

PORTLAND, ORE., POSTAL.

The Postal Company recently moved their office to the new Failing Building, corner of Washington and Third streets. The entire office is on one floor, the operating room being directly back of the receiving department. A skylight extending the whole length of the operating room insures plenty of natural light, even on the darkest days.

Six Lundell motor generators were installed, giving potentials of 40, 130 and 375 volts. The primary current is 500 volts direct current, furnished by the Portland General Electric Company. These machines displace 2,500 cells of gravity battery. The new quarters are fitted with the latest Postal standard equipment.

The personnel follows: Wm. Hearn, manager; John Annand, chief operator; B. S. Durkee, assistant chief; L. Connell, night chief; C. A. Cook, all night chief; D. E. Ross, James J. Collins, C. Gundlach, R. J. Thomas, J. S. Urquhart and J. B. Stillwell, operators; R. L. Brackett, bookkeeper; F. Cromwell and J. Walsh, counter clerks; J. Erickson, lineman.

Odds and Ends.

[Short, pithy items bearing on the telegraph are solicited for this column.—EDITOR.]

A man who had the "grip" last winter says the first symptoms he noticed was while receiving a cable from a place in Russia, named Owuschuhooryemoffski.

"Hello, old fellow; I saw the chief operator calling you down on your average slip!"

"Naw, he wasn't calling me down, he was calling me up. He said that if I didn't show more business handled that I'd better get a berth on the new Arctic expedition, for it would be too cold for me around here!"

A press special describing in detail the finding of the body of a man who had been drowned in a beer vat of a western brewery, has completely reformed an eastern operator who received it. He says: "When a man can't tell any more whether he is getting triple X extra or embalming fluid, it's time to quit." And he has been sober four weeks.

What is now wanted is to know just what did happen. For, two weeks ago, a traveling man wired his wife like this: "Don't open the letter I mailed you to-day; return to me unopened. Answer." Telegraph circles have been on their metal ever since in anticipation of handling that "answer," but it hasn't come, and now they ask if that woman should be blamed if she could not restrain her curiosity.

The woman who wanted her telegram sent sealed in an envelope has been heard of, so has the man who forbade any of the telegraph employees to read his messages; but the latest is the fellow who insisted that if he paid 1 cent extra for a revenue stamp that the company must send it with his message, because he had received several telegrams that the revenue had been paid by the sender and they came to him without any stamp on.

Railway Telegraph Superintendents.

As the time approaches for the holding of the convention of the Railway Telegraph Superintendents, the twentieth of the series, which meets at Buffalo, N. Y., on June 19-21, indications multiply that the assemblage will not only be a numerous one, but it is expected that many ladies will attend. A number of excellent papers will be read, a reference to which was made in a previous issue.

The growth of this association, both in membership and in the larger interest with which it is regarded by the great body of railroad telegraph superintendents, is very gratifying to those who have long been identified with it and who have labored with great patience and steadfastness of purpose to bring it to the enviable position it now occupies. It cannot be too strongly urged upon those superintendents, and others identified with the railroad telegraph service, who have not yet joined its ranks, of the advantages to be derived from such community of interests. The coming in personal contact at least once a year with their fellow superintendents at the annual convention, where, by a widening of acquaintance, exchange of thought, advancement of new ideas and methods of practice, much is to be gained of a character that will enable any superintendent to so conduct his office as to promote the standard of the service rendered. Every railroad company in the United States should be in close representation with the Association of Railway Telegraph Superintendents.

Business Notices.

On the inside of the back cover will be seen an advertisement of Messrs. Foote, Pierson & Co., 82-84 Fulton street, New York, which refers to the new Twentieth Century telegraph key, an illustrated article on which appeared in the May 1 issue of this paper. The key appears to be giving satisfaction everywhere it has been used, and many are enthusiastic over it. The testimonials printed in the advertisement will be read with especial interest, inasmuch as they were received from busy operators, thoroughly practical men, who fully understand and appreciate the points of improvement in the device.

In the model hotel or apartment house of to-day, telephones are quite as necessary as the elevators and mail chutes. After many unfavorable experiences, architects, engineers and contractors have gradually discarded the cheap and inefficient telephone apparatus and are choosing more for quality and durability than price. For these reasons the new Hotel Essex, at the corner of Fifty-sixth street and Madison avenue, New York, is equipped with Ericsson telephones and switchboard, which give quick communication from every suite and hall to the office, and place the management within easy reach of every patron. The room telephones are all of the hand microtelephone pattern, and instead of being a disfigurement to the wall, they serve as an ornament to the finely finished suites. Each of these is fitted with a flexible cord of sufficient length to enable the patron to call the office, or to answer a call if desired, without rising from the couch or bed. When through using, the releasing of a lever in the handle makes and breaks all necessary connections and it is not necessary to replace on a hook, as in ordinary telephones. The utility and compactness of the hand microtelephone has made it a great favorite, and it bids fair to soon take the place of the once popular nickel desk set, and in many cases replace the wall instrument as well. In operation, the office is called by simply pressing the contact in the handle of the hand microtelephone, which act throws the drop at the switchboard. The operator connects in the usual manner, answering the call, and if desired calls some other suite and enables the two to converse. The call to the suite is made by a small musical gong placed near the ceiling, which, while loud enough to call a person, is not harsh enough to disturb one. The wall telephone for use in the halls is neat, compact, and takes small space. It is fitted with the standard Ericsson receiver and transmitter. In operation it is used in the usual way, the act of taking the receiver from the hook, sending the call for the operator in the office. With both instruments, when the line is released, the operator is at once notified and quickly

disconnects. The switchboard, positive and rapid in operation, is of the finest mechanical construction, durable, handsomely finished and while occupying very little space compared to its capacity, is of a peculiar design which distinguishes it from ordinary boards. The system is operated by centralized batteries and is so arranged that, when desired, a motor generator can be thrown into circuit for calling. This system is manufactured by The Ericsson Telephone Co., 296 Broadway, New York.

Ill At His Post.

A telegraph operator at a railroad station in New Jersey became suddenly ill while on duty a few days ago, and, according to the report made to the authorities, "fell in a faint." This occurred at a point where the operator's duty includes setting the semaphore by which the locomotive engineers may know whether the track ahead is clear. It gives them the mute order to "Go ahead; all clear!" or "Stop! There is something in your way!" Fortunately for the passengers on the trains which pass that point at frequent intervals, the operator had set the block when he was overcome, and trains were stopped and disaster was averted.

A signal tower in charge of one man, who may become ill or incapacitated at any moment, is not a perfect safeguard, and the consideration of what might have resulted from the illness of the operator on the New Jersey line should serve as a warning and a stimulus to improvement.

Morse Club Dinner.

The Morse Club will hold its annual dinner in commemoration of the transmission of the first telegraph message on May 24 at the Sturtevant House, New York. As this is strictly a telegraphers' club, it is expected that there will be a large family reunion on this occasion. It is said that a special feature in the entertainment is being arranged as a little surprise to enhance the pleasure of the affair.

A cordial invitation is extended to every telegrapher to attend this meeting, tickets for which will be issued in a few days and can be obtained from any member of the club, or on application to M. H. Kerner, secretary, 195 Broadway.

A subscription to TELEGRAPH AGE is one of the best investments a progressive telegrapher can make; it keeps him thoroughly posted.

Readers of the TELEGRAPH AGE are referred to the advertisement of the Montauk Cable Company on page two of the front cover. (Adv.)

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, 40 illustrations. Price \$2.00, expressage prepaid. Address John B. Taitvall, The Telegraph Age, 363 Broadway New York.

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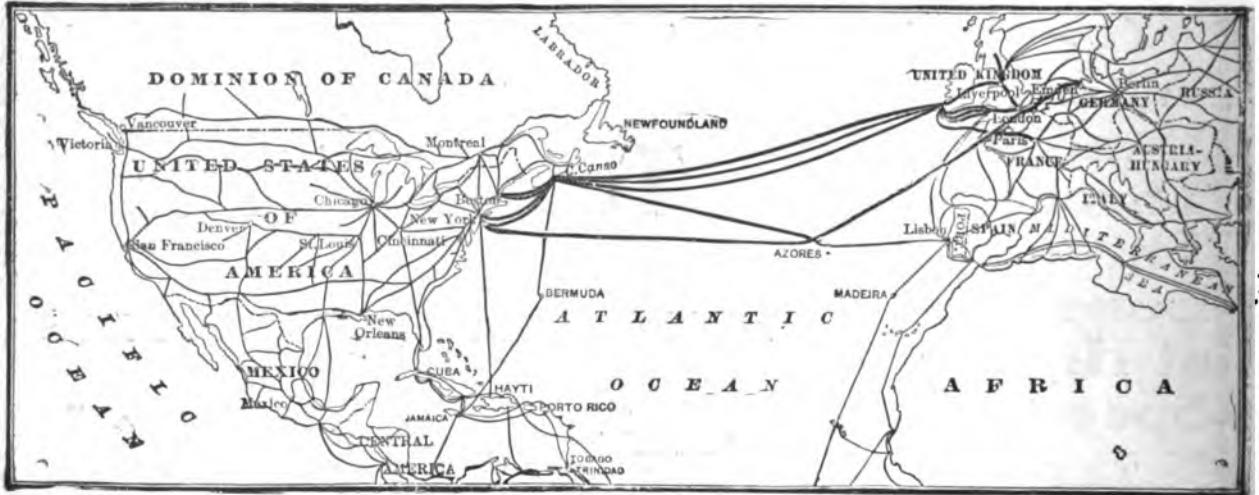


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"T. F. KEHOE."

New York World,
Telegraph Dept.,
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"Among those whose opinions are as above stated are: Messrs. J. P. Regan, Duckworth and Rockwell, of the St. Louis Republic; Mr. Whittaker, of the Philadelphia Ledger; Mr. J. E. Kane, of the Baltimore Sun; Messrs. P. F. Larkin, J. M. Paul, E. T. Moore and H. S. Rady, of the Herald.

"H. T. PALMER."

New York Herald, Telegraph Dept.,
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"JAMES B. DRISCOLL."

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New York Journal,
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"H. S. RADY."

New York Commercial Advertiser,
May 10, 1901.

"Regarding the new relief key. I noticed a decided improvement in the sending of the operator on my wire the other day, and learned that he was using the new style of key. The difference was remarkable in the improved formation of his Morse characters from the old style key, in fact I thought it was another man sending. His letters came much firmer and safer.

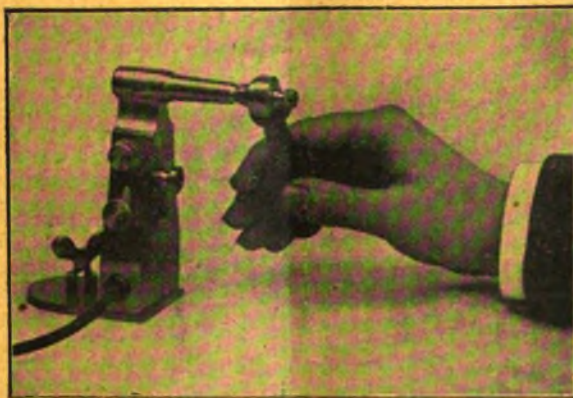
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Boston Herald Bureau,
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