

# TELEGRAPH AGE.

A SEMI-MONTHLY JOURNAL DEVOTED TO TELEGRAPHY.

Single Copies, 10 cts.

ESTABLISHED 1893.

\$1.50 per year.

Vol. XIX.—No. 15.

NEW YORK, AUGUST 1, 1902.

Whole No. 461.



## NEW STANDARD DRY CELLS. STANDARD OF THE U. S. NAVY AND THE WORLD.

The price is as low as any; durability, FOUR to ONE over any other make. When you use them once you will want no other. NECKTIE PIN outfit by mail \$1.00.

**WILLIAM ROCHE**, Inventor and Sole Manfr.,  
42 Vesey St., New York.

## Put Alexander's Word-Counter

on your machine to-day. You will be a better operator to-morrow. It will save you lots of work and worry, and silently demand a better salary for the improved service you will give.

JESSE ALEXANDER, 195 Broadway, New York

1889

PARIS EXPOSITION MEDAL FOR  
RUBBER INSULATION.



TRADE MARK

1893

WORLD'S FAIR MEDAL FOR  
RUBBER INSULATION

THE STANDARD FOR RUBBER INSULATION.

SOLE MANUFACTURERS OF Okonite Wires, Okonite Tape, Manson Tape, Candee Weatherproof Wires

THE OKONITE CO., LTD., 253 BROADWAY, NEW YORK.

WILLARD L. CANDEE,  
H. DURANT CHEEVER, } Managers.

WRITE FOR PRICES.

GEO. T. MANSON, Gen'l Supt.  
W. H. HODGINS, Secy.

**Good Work  
Durability  
Simplicity  
Speed**

ARE THE

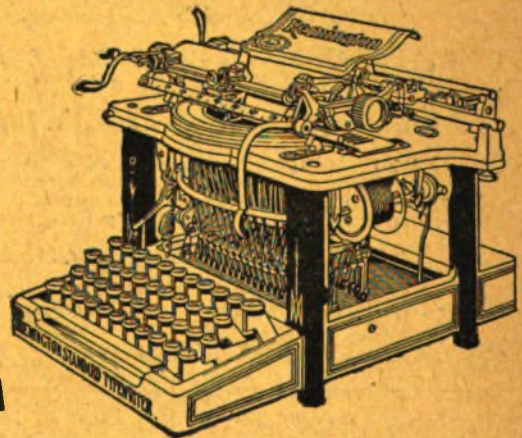
**Four Pillars of Strength**

which Support the

# Remington Typewriter

YOU WILL FIND THEM IN EVERY REMINGTON

Wyckoff, Seamans & Benedict, 327 Broadway, New York.



# Phillips' Code.

THE STANDARD FOR YEARS.

NEW AND REVISED EDITION NOW READY.

THIS FAVORITE AND THOROUGHLY TESTED method of shorthand arranged for TELEGRAPHIC PURPOSES and for the rapid transmission of Press Reports, has been brought up-to-date by MR. A. P. VELIE, a gentleman for many years identified with The Associated Press, New York, thoroughly competent for his task, and is *pronounced complete* in every particular.

BETTER THAN EVER this famous work will meet all requirements and be of indispensable value to every operator.

WITH THE NECESSARY ADDITIONS it now contains, the volume presents a compendium of telegraphic abbreviations of the utmost practical worth.

AGENTS FIND THIS BOOK A QUICK SELLER.

PRICE, \$ 1.00. CARRIAGE PREPAID.

Address all orders to **J. B. TALTAVALL,**

TELEGRAPH AGE.

253 BROADWAY, NEW YORK

## EVERY GOOD OPERATOR

SHOULD HAVE A GOOD WORD COUNTER  
THEY SAVE TIME AND TROUBLE

## INVALUABLE BECAUSE THEY ARE RELIABLE

We Can Supply Either the Hudson or Alexander

They record the exact number of words written upon any writing machine. They are an ornament to any typewriter. Simple and durable. Cannot get out of order. Unlimited counting capacity. Can be instantly reset. Warranted accurate.

Mailed to any Address upon Receipt of \$3.00

In ordering state what machine you use, as attachments differ. Remit by express or post office money order to

**JOHN B. TALTAVALL, Telegraph Age, 253 Broadway, N. Y.**

Taltavall's Telegraphers of To-day. Descriptive, historical and biographical. 355 pages and 700 engravings of the prominent telegraph people. Price, \$5.00, expressage prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

Thom & Jones' Telegraphic Connections; 300 pages, illustrated by 20 plates, with circuits distinguished by three different colors. Price, \$1.50, postage prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

"The Standard Work  
on Telegraphy" - -

## AMERICAN TELEGRAPHY:

SYSTEMS,  
APPARATUS,  
OPERATION.

450 Diagrams, 575 Pages, 34 Chapters.

By **WILLIAM MAVER, Jr.**

Bound in Cloth, - - - - \$3.50  
Sent, express charges prepaid, to any part  
of the world upon receipt of price.

**J. B. TALTAVALL,**  
Telegraph Age,  
253 Broadway, New York.

Any electrical or telegraph book  
published for sale by  
**TELEGRAPH AGE,**  
253 Broadway, New York.

**N**OW IS THE TIME TO  
SUBSCRIBE FOR :: ::



**TELEGRAPH AGE**

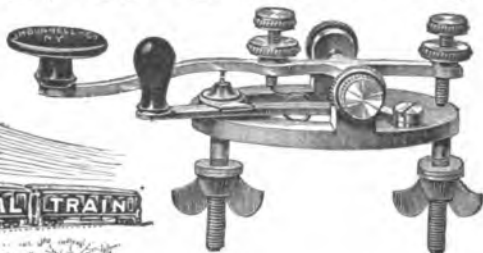
TERMS: \$1.50 PER YEAR.

Address **J. B. TALTAVALL, Publisher, 253 BROADWAY, NEW YORK.**

TRADE MARK SPECIAL TYPES OF THE  
 "Chloride Accumulator" "Chloride Accumulator" for Telegraph Service  
 REGISTERED SEPTEMBER 11, 1894.  
**THE ELECTRIC STORAGE BATTERY CO.** ALLEGHENY AVE. and 19th ST., PHILADELPHIA, PA.  
 SALES OFFICES: New York, 100 Broadway. Baltimore, Continental Trust Bldg. Cleveland, New England Bldg.  
 Boston, 60 State St. St. Louis, Wainwright Bldg. Philadelphia, Allegheny Ave., and 19th St.  
 Chicago, Marguette Bldg. San Francisco, Nevada Block. Detroit, Michigan Electric Co.  
 Havana, Cuba, G. F. Greenwood, Mgr., 34 Empedrado St.

Established 1879 **J. H. BUNNELL & CO.** (Incorporated)  
 Telegraph Instruments and Electrical Supplies in General

MAIN OFFICE REMOVED TO  
**No. 20 PARK PL.**  
 Formerly  
 106 and 108 Liberty St.  
 and 76 Cortlandt St.



SOLE MANUFACTURERS OF THE GENUINE

J. H. Bunnell & Co.'s Standard Instruments—Steel Lever Keys, Relays of the various well-known designs—such as Box Sounding, Polarized, Pony and Pocket forms. The latest improved types of Main Line Sounders, Giant local Sounders, Repeaters, Switches, Lightning Arresters, Bells, Batteries, Burglar Alarms, Annunciators, etc. A full line of Electric Light and Power Apparatus and Supplies.



**Operators Wanted** to act as agents for the sale of the **Audible Alphabet**  
 the latest and best device for self instruction in learning telegraph operating. Send for circular.

Note well the exact name and address and make all Orders, Checks, Drafts, etc payable to

**J. H. BUNNELL & CO.**  
 20 Park Place, New York.

THE AUDIBLE ALPHABET P. O. BOX 1286.

CATALOGUES FREE.

**MADE \$105 THE FIRST MONTH**

writes FRED. BLODGETT, of N. Y. J. L. BARRICK, of La., writes: "Am making \$3.00 to \$4.00 every day I work." MRS. L. M. ANDERSON, of Iowa, writes: "I made \$3.80 to \$6.60 a day." Hundreds doing likewise. So can you. \$5.00 to \$10.00 daily made plating jewelry, tableware, bicycles, metal goods with gold, silver, nickel, etc. Enormous demand. We teach you **FREE**. Write—offer free.

G. GRAY & CO., Plating Works, A Miami Bldg., Cincinnati, O.

**W. R. OSTRANDER & CO.**

MANUFACTURERS OF...

Speaking-Tube Goods  
 Electric Bells  
 Annunciators  
 General Electric Supplies

22 DEY STREET, NEW YORK

SEND FOR CATALOGUE

**Barclay's Paralysis Cure**

Strengthens the relaxed cords of the hand, wrist and arm. Cures Telegraphers' and other Writers' Paralysis and Cramps of many years' standing. Stiff joints caused by accident cured. All Telegraphers and Writers should have one.



THIS IS ONE OF MANY TESTIMONIALS NOW ON HAND.

Ft. Atkinson, Wis., July 18, '95.

R. Barclay:  
 Dear Sir:—I commenced using your valuable Exerciser about two months ago, and have received such great benefit from its use that I consider it necessary to write you and say what it has done for me. If I had not used this instrument, I would have been obliged to give up the telegraph service, as I was in such a condition that nearly every one complained of my sending. I can heartily recommend your valuable remedy to all afflicted with paralysis, and if I know of any one in need of it I shall do all I can and persuade their trying it. Yours very truly,

OTTO REHM, Opr. C. & N. W. R'y.  
 Sent to any address, postage prepaid, together with full instructions, \$3.15. Address ROBERT BARCLAY, Green Bay, Wis.



HUDSON'S WORD REGISTER

A simple, accurate device for counting the words written upon the typewriter. It is easily read, instantly set, and covers both message and special work. Price by mail, with full directions for attaching and operating, \$3.00. State what machine you use. Circular free. Address

GEO. E. HUDSON,  
 Sheridanville, Pa.

**THE PHILLIPS CODE.**

PRICE, \$1.00.

A thoroughly tested method of Shorthand, arranged for Telegraphic Purposes and contemplating the rapid transmission of press reports, also intended to be used as an easily acquired method for General Newspaper and Court Reporting.

Address,  
**J. B. TALTAVALL,**  
 TELEGRAPH AGE, 253 BROADWAY  
 NEW YORK.

Any Electrical or Telegraph Book published for sale by TELEGRAPH AGE, 253 Broadway, New York.

# NOW READY FOR DELIVERY

## Pocket Edition of Diagrams

---



---

 AND
 

---



---

COMPLETE INFORMATION FOR TELEGRAPH ENGINEERS  
AND STUDENTS

By **WILLIS H. JONES**  
The Electrical Editor of Telegraph Age



BOUND IN FLEXIBLE LEATHER;  
260 PAGES

**A Telegraphic Classic; The Standard of the World**

**THIS VOLUME** is the finest, most complete and comprehensive book on the telegraph ever published. It is colloquial, simple and clear in style, copious in the amount and diversity of practical information furnished,

IT IS SPLENDIDLY ILLUSTRATED

and will be welcomed by every student, operator, official and engineer.

**NO SUCH THOROUGH TREATMENT** of the subject of the telegraph, clearly explaining the equipment of a modern telegraph office, has ever before been accomplished.

**IN ADDITION TO A VAST AMOUNT** of other material it contains the most valuable part of the matter appertaining to electricity, storage batteries, the duplex, the quadruplex, wheatstone system, the principal types of repeaters and other telegraph apparatus that Mr. Jones has written for **TELEGRAPH AGE** during the past three years.

**THIS WORK COVERS** the entire field of a practical telegraph course, and the subjects are treated with a conviction and simplicity, wholly free from entangling technicalities, such as to render the volume one of delight and absorbing interest.

**A STRONG AND VALUABLE FEATURE** of the book lies in the diagrams, clearly drawn and of large size, which show the apparatus of the systems of both the **WESTERN UNION TELEGRAPH COMPANY** and of the **POSTAL TELEGRAPH-CABLE COMPANY** brought up to date. Each apparatus described, in addition to the theoretical illustration, are accompanied by a diagram of an "actual binding post connection," taken from the blue print, something that all linemen especially will thoroughly appreciate.

**THE TELEPHONE AND SIMULTANEOUS TELEPHONY AND TELEGRAPHY** is explained in a particularly clear manner—just the thing for those possessing no knowledge whatever of the subjects.

## There is Already a Big Demand

FOR THIS GREAT AND TIMELY WORK, AND OUR AGENTS AND FRIENDS EVERYWHERE SHOULD LOSE  
NO TIME IN FILING THEIR ORDERS.

**Price, \$1.50**

EXPRESS CHARGES PREPAID



ADDRESS  
**J. B. TALTAVALL,** TELEGRAPH AGE  
253 BROADWAY, NEW YORK

**BOOKS ON TELEGRAPHY AND ELECTRICITY.**

	PRICE.
<b>Abernethy's</b> Outline of Commercial and Railway Telegraphy in Theory and Practice. Arranged in questions and answers. 355 pages, 25 illustrations..	\$2.00
<b>Allsop's</b> Bell Construction.....	1.25
" Bell Fitting.....	1.25
" Induction Coils.....	1.25
" Practical Electric Light Fitting....	1.50
" Telephones.....	2.00
<b>Badt's</b> Bell-Hanger's Hand-book.....	1.00
" Dynamo-Tender's Hand-book.....	1.00
" Incandescent Wiring Hand-book....	1.00
" Transmission Hand-book.....	1.00
<b>Bottomo's</b> How to Make and Use a Dynamo.	.90
" How to Manage a Dynamo.....	.60
" Electric Bells.....	.50
" Electricity and Magnetism.....	.90
" Electrical Instrument Making....	.50
" Electro-Motors.....	.50
" Guide to Electric Lighting.....	.75
<b>Crocker's</b> Electric Lighting. Vol. I, The Generating Plant.....	3.00
<b>Crocker &amp; Wheeler's</b> Management of Dynamos and Motors.....	1.00
<b>Croft's</b> How to Make a Dynamo.....	.80
<b>Crosby &amp; Bell's</b> Electric Railway.....	2.50
<b>Culley's</b> Hand-book of Practical Telegraphy. 442 pages, 152 illustrations and numerous plates.....	5.50
<b>Du Moncel's</b> Electric Lighting.....	1.25
" Electric Motors.....	3.00
" Electro - Magnets American edition, 50 cents; English edition.....	.75
<b>Dunman's</b> Text-book of Electricity.....	.40
<b>Dyer's</b> Induction Coils. How Made and How Used.....	.50
<b>Davis's</b> Standard Tables for Wiremen.....	1.00
<b>Dolbear's</b> Telephone ..	.50
<b>Fahie's</b> History of Telegraphy.....	3.00
<b>Fairchild's</b> Street Railways.....	4.00
<b>Faraday's</b> Researches. 3 volumes.....	20.00
<b>Haskin's</b> (C. H.) Galvanometer.....	1.50
<b>Hering's</b> Magnet Winding.....	1.25
" Recent Progress in Electric Railways.....	1.00
" Table of Equivalents.....	.50
<b>Hobb's</b> Arithmetic of Electric Measurements.	.50
<b>Houston's</b> Electric Dictionary.....	5.00
" Advanced Primers of Electricity and Magnetism.....	1.00
" Advanced Primers of Electric Measurements.....	1.00
" Advanced Primers of Electric Transmission of Intelligence...	1.00
" Electricity One Hundred Years Ago and To-Day.....	1.00
<b>Houston &amp; Kennelly's</b> Alternating Electric Currents.....	1.00
" " Electric Arc Lighting.....	1.00
" " Electric Heating....	1.00
" " Electric Incandescent Lighting....	1.00
" " Electric Motor.....	1.00

	PRICE.
<b>Houston &amp; Kennelly's</b> Electric Street Railways.....	\$1.00
" " Electric Telegraphy.....	1.00
" " Electric Telephony.....	1.00
" " Electricity in Electro-Therapeutics.....	1.00
" " Electro - Dynamic Machinery.....	2.50
" " Electro-Magnetism..	1.00
<b>Jamieson's</b> Electricians' Pocket Companion.	.75
" Elementary Manual of Magnetism and Electricity.....	1.25
<b>Jenkin's</b> Electricity and Magnetism.....	1.25
<b>Kapp's</b> Alternate Currents of Electricity....	1.00
" Alternating Current Machinery.....	.50
" Dynamos, Alternators and Transformers.....	4.00
" Electric Transmission of Energy....	3.50
<b>Lightning Flashes and Electric Dashes.</b> Short, bright, ably written stories and sketches, telegraphic and electrical. 160 large, double-column pages. Profusely illustrated.....	1.50
<b>Lockwood's</b> Electricity, Magnetism and Electric Telegraphy. A Practical Guide and Hand-book of General Information for Electrical Students, Operators and Inspectors. 376 pages, 152 illustrations.	2.50
<b>Loring's</b> Hand-book of the Electro-Magnetic Telegraph.....	1.00
<b>Maver's</b> American Telegraphy. An Encyclopedia of the Telegraph Systems, Apparatus, Operation. Over 600 pages, 450 illustrations, greatly improved and enlarged, second edition just out.....	3.50
<b>Maver &amp; Davis's</b> Quadruplex. Contents: Development of the Quadruplex; Introduction and Explanatory; The Transmitter, Rheostat and the Condenser; Stearns's Duplex; Instruments of the Polar Duplex; The Polar Duplex; The Quadruplex; The Dynamo-Electric Machine in Relation to the Quadruplex; The Practical Working of the Quadruplex; Telegraph Repeater; The Wheatstone Automatic Telegraph. By William Maver, Jr....	1.50
<b>Meadowcroft's</b> A B C of Electricity.....	.50
<b>Munro &amp; Jamieson's</b> Pocketbook.....	2.50
<b>Munro's</b> Heroes of the Telegraph. The Origin of the Telegraph, Biographical Sketches, etc. By J. Munro. 288 pages, illustrated.....	1.40
<b>Niaudet's</b> Treatise on Electric Batteries....	2.50
<b>Noll's</b> How to Wire Buildings.....	1.50
<b>Ohm's</b> Galvanic Circuit.....	.50
<b>Parkhurst's</b> Dynamo and Motor Building for Amateurs.....	1.00
" Motor Construction.....	1.00
<b>Plum's</b> Military Telegraph During Our Civil War. 2 volumes.....	5.00
<b>Pope's</b> Modern Practice of the Electric Telegraph.....	1.50
<b>Preece &amp; Sivewright's</b> Telegraphy.....	2.00
<b>Preece &amp; Stubb's</b> Manual of Telephony....	4.50
<b>Prescott's</b> Bell's Telephone.....	4.00
" Dynamo Electricity.....	5.00

The  
**NEW CENTURY**  
TYPEWRITER



does the **BEST WORK** and  
lots of it, **EASILY.**

Strong, Thoroughly Built,  
Superior in results to any other.

WRITE FOR  
"THE BOOK OF THE NEW CENTURY"

**AMERICAN WRITING MACHINE COMPANY.**  
343 Broadway, New York.

**MARSHALL'S  
ELECTRICAL CONDENSERS**



**MULTIPLE SERIES STANDARD CONDENSER.  
STANDARD CONDENSERS A SPECIALTY.**

Condensers for Telegraph, Telephone, Electric Light and Experimental purposes.

These condensers are used in all telegraph offices in America where standard and ordinary condensers are required. Send for catalogue.

Address **WM. MARSHALL,**  
700 Lexington Ave., near 57th St., New York.

**Satin Finish**  
Typewriter Ribbons.  
Something new.

**Satin Finish**  
Carbon Paper.  
Known everywhere.

**Cobweb Carbon**  
Used once,  
Used always.

**A. P. LITTLE, Mfr.,**  
Rochester, N. Y.

Also,  
261 Broadway, New York.  
161 La Salle St., Chicago.  
665 The Bourse, Philadelphia.  
413 Wood St., Pittsburgh.  
28 Basinghall St., London.  
46 Adelaide St., E., Toronto.

**Preece & Stewright's Telegraphy.**—  
A description of the English Telegraphs. 412 pages fully illustrated. Price, \$2.00, expressage prepaid. Address J. B. Taltavall, 253 Broadway, New York.

**BLOOD POISON**

Primary, Secondary or Tertiary permanently cured in 15 to 35 days. We eliminate all poison from the system, so that there can never be return of the disease in any form. Parties can be treated at home as well as here (for the same price and under the same guarantee), but with those who prefer to come here, we will contract to cure them or refund all money and pay entire expenses of coming, railroad fare and hotel bills.

**OUR MAGIC REMEDY** has been many years in use and never failed to cure. Since the history of medicine a true specific for Blood Poison has been sought for but never found, until our Magic Cyphiliene was discovered. This disease has always baffled the skill of the most eminent physicians. We solicit the most obstinate cases and challenge the world for a case we cannot cure.

**\$500,000 CAPITAL**

behind our unconditional guarantee. **ARSO LUTE PROOF** sent sealed on application. 100-PAGE BOOK FREE.

**HAVE YOU** Sore Throat, Pimples, Copper Colored Spots, Aches, Old Sores, Ulcers in mouth, Hair Falling, write

**COOK REMEDY CO.,**  
1632 Masonic Temple, Chicago, Ill.

**COOK REMEDY CO.**

**Standard Underground Cable Co.,**



**Wires,  
Cables,  
Accessories.**

**RAILWAY, ELECTRIC LIGHT,  
TELEPHONE, TELEGRAPH,**  
For Aerial, Underground  
and Submarine Use.

**NEW YORK, PHILADELPHIA, CHICAGO,  
PITTSBURGH, BOSTON, SAN FRANCISCO.**

**\$1250 TO \$3600** Per Year & Expenses.  
**FOR HUSTLERS—BOTH MEN & WOMEN**



At home or traveling. Let us start you. Our Poritan Water Still—a wonderful invention. Great seller—big money maker. Enormous demand. Over 50,000 already sold. Everybody buys. It purifies the foulest water by distillation—removes every impurity. Furnishes absolutely pure, aerated, delicious drinking water. Beats Filters. Saves lives—prevents fevers, sickness, doctor bills—cures disease. Write for **NEW PLAN AND OFFER.**

**HARRISON MFG CO.,** 12 Harrison Bldg., Cincinnati, O.

# THE TELEGRAPH AGE

No. 15.

NEW YORK, AUGUST 1, 1902.

VOL. XIX.

## CONTENTS.

Some Points on Electricity.....	307
Business Notices. Recent Telegraph Patents. The Old Time Telegraphers' and Historical Association. Legal. Organization. Personal Mention. Resignations and Appointments. Recent New York Visitors. General Mention. The Cable. The Railroad..	303
Compulsory Arbitration. A New Edition of Phillips' Code.....	310
Bridging Over the Periods of Reversals. Telegraph Statistics. The Telegraphs of Salvador. T. M. B. Association.....	311
Telegraphy and Photography Are Twins. The Irony of Fate. Directory of Telegraph Organizations.....	312
Henry H. Ward. Postal Telegraph.....	313
Manager Schultz at Galveston. In Behalf of Employer and Employee. The Wire Game Once More.....	314
Editorial. John W. Mackay. Power That Comes from Knowledge. An Unprecedented Sale. Coronation Telegraph Work.....	315
Fourth of July Outing of the Commercial Cable Company, London, Eng. The Postal Declares Its Position. Only a Cigar.....	317
Death of John W. Mackay.....	318
Clarence W. Mackay. Now an Inspector in Mr. Brooks' Office. New General Wire Chief at "186.".....	320
Marconi on Wireless Telegraphy. Book Notice. Setting Bones by Telegraph.....	321
Buffalo, Western Union; Jacksonville, Western Union; Birmingham, Western Union.....	322
Chicago, Postal; Denver, Western Union; St. Louis, Western Union; Bangor, Western Union; Houston, Postal.....	323
Boston, Western Union; Boston, Postal; Philadelphia, Western Union.....	324
Philadelphia, Postal; New York, Western Union.....	325
New York, Postal. William Finn in a New Position.....	326
Wireless Telegraphy. Built the Wires Across Wisconsin. A Sympathetic Tale—The Widow and the Telephone.....	327
Preserve Your Papers.....	328

## SOME POINTS ON ELECTRICITY.

### Contemplated Improvements in Telegraph Apparatus.

BY WILLIS H. JONES.

It is really astonishing sometimes, when reminded by the installation of some new, yet simple, device, to think how long we have tolerated certain familiar annoyances, for no other reason than that those most discomfited thereby were apparently too indifferent or reluctant to make any strenuous effort towards reform through the proper channels.

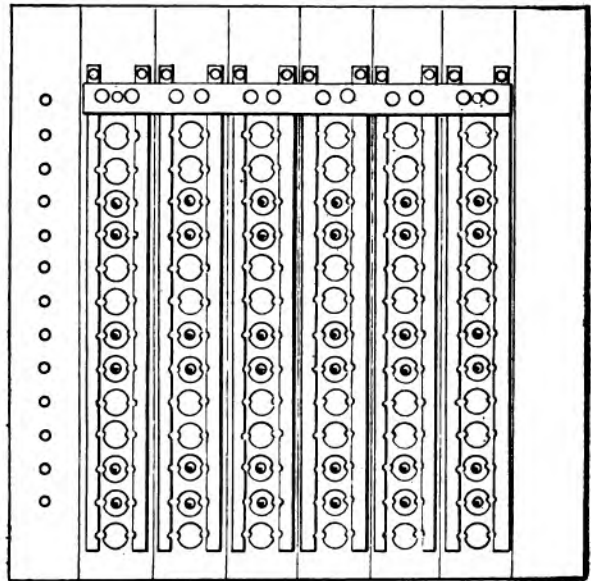
The officials of telegraph companies are not only willing, but anxious to make needed reforms whenever and wherever it can be shown that alterations are really practical, yet they are frequently unjustly credited with indifference by inventors and schemers whose proposed methods, many of which are really good, are side-tracked. The point seems to be too generally overlooked by them that the adoption of their methods would, in many cases, render useless perhaps many thousands of dollars worth of standard apparatus now in use. The erroneous impression seems to prevail that the discarded material might be utilized in branch and suburban offices.

A little reflection, however, should convince any fair-minded person that such a disposition would certainly be a step in the wrong direction. Apparatus which is not satisfactory in the main office

under the careful attention of expert attendants is surely not the proper thing for less experienced employes to handle.

Of course, when a new device is really valuable financially, despite this drawback, the replacement of standard apparatus with a new pattern will follow as a matter of business, but on that condition only.

As an example of valuable apparatus improvement with practically no additional expense, Mr. J. C. Barclay, electrical engineer of the Western Union Telegraph Company, New York, again comes to the front with a new method of switchboard alignment. His arrangement will certainly be ap-



preciated by chief operators generally, and will greatly lessen the chances of accidentally running foreign wires into each other on one row of disks, and the method will require no alteration whatever in the mechanical construction of the present standard switchboard. Nearly all methods heretofore offered involved the reconstruction of all, or at least certain parts of the structure, hence their rejection.

The accompanying diagram illustrates the manner in which a safe alignment is insured. A glance will show that a mistake cannot be made except through inexcusable carelessness. The method is to give the face of every other pair of disk rows a concave or saucer-like surface, leaving the companion pairs perfectly flat, as heretofore constructed. Thus, should the upper concave row of disks in any

pair be selected for the purpose of joining two wires together across the board, the chief operator making the connection would have to be at least four rows out of alignment before he could find another row of similar face. Such a mistake would obviously be detected even at long range and remedied immediately.

As heretofore stated, this method involves no new apparatus whatever. The disks on old switchboards can easily be marked where they stand without in the least interfering with working circuits. It is the intention of the company mentioned to make this method of alignment standard for all new switchboard apparatus, both terminal and intermediate.

#### Business Notices.

Within three hours of New York are some of the most delightful mountain resorts of the East, ranging in height from 1,600 to 2,200 feet. They are situated in the Pocono Mountains of Pennsylvania, on the main line of the Lackawanna Railroad, which operate a special fast express service on Friday and Saturday afternoons for business men desiring to spend Sunday with their families. These trains return Sunday night and Monday morning, respectively, affording a comfortable week-end escape from town. Interesting information about these places will be found in Mountain and Lake Resorts, a little book just issued by the Passenger Department of the Lackawanna Railroad. It is handsomely illustrated and contains a series of delightful sketches, entitled The Experiences of Pa. Send five cents in stamps to T. W. Lee, General Passenger Agent, New York City, and a copy will be mailed.

The Standard Telephone and Electric Company, of Madison, Wis., was one of the first companies organized in the United States to manufacture telephone apparatus for the use of independent exchanges and toll-line companies, and the various lines of equipments manufactured by this company can be found in every section of the United States and in many places abroad. A high grade of excellence is always maintained, both electrically and mechanically, in all lines of telephone apparatus made by this company, and wherever used a good service is always assured. "Standard" apparatus is recognized everywhere as being among the best and most reliable upon the market. The company makes a specialty of furnishing switchboards and long distance telephones to telegraph superintendents of the leading railroad companies, among which are the Union Pacific, Santa Fé, Northwestern, St. Paul, Northern Pacific, Illinois Central, Great Northern, Burlington, Pennsylvania, Baltimore & Ohio, Lake Shore and others.

#### Recent Telegraph Patents.

A patent, No. 704,023, has been granted to C. E. Fritts, of New York City, for an electric telegraph system, consisting of lines divided into sections and connected in series by condensers, the transmission of signals being effected by induction.

S. R. Wright, of Morton, N. Y., has been granted patent No. 704,165, for an automatic telegraph key closer.

A United States patent No. 703,892, has been granted to S. G. Brown, of London, Eng., to cover his system of multiplex telegraphy.

A patent, No. 703,810, has been granted to J. N. Newsom, of St. Louis, Mo., for a telegraphically operated train signal. By means of this invention a train despatcher or signal man can set the semaphore signals by merely sending over the circuit Morse characters properly grouped to control the respective signals.

#### The Old Time Telegraphers' and Historical Association.

John Brant, secretary of the Old Time Telegraphers' and Historical Association, reports that there will be a large attendance from New York and vicinity, also from Chicago and Pittsburg at the reunion, at Salt Lake City, Utah, September, 10, 11, 12. The programme of the meeting will be sent out to members in a few days. It is expected that a number of members from the Pacific Coast will be present on the occasion. This will be the first meeting ever held west of the Rocky Mountains, which will give to the members of the Far West an unusual opportunity to meet their Eastern brethren.

#### Legal.

The City of Newark, N. J., has refused to grant the Postal Telegraph-Cable Company license to lay its wires underground without the company agreeing to give the city two per cent. of its gross receipts. At the same time the city has ordered the company to bury its wires.

An annual license fee imposed by a borough on a telegraph company of \$1 for each pole and \$2.50 for each mile of wire maintained within the borough is not so obviously unreasonable as to render the ordinance void. This is the recent decision of a higher Pennsylvania Court affirming the decree of a lower court. If this brief decision stands the test of the Supreme Court, the telegraph companies will have to go out of business.

#### Organization.

The Western Union men discharged by the Chicago, Ill., management on account of activity in brotherhood matters, are being hired by the Postal company.

Mr. I. J. McDonald, who was recently discharged by The Associated Press because of his activity in brotherhood matters at Chicago, is now employed by the "American" of that city.

Boston, Mass., has organized a local branch of the International Union of Commercial Telegraphers with eighty members; Milwaukee with thirty-seven members; Kansas City with thirty-five members; Cincinnati, San Francisco and Springfield, Ill., have also established branches.



### Personal Mention.

Col. Robert C. Clowry, president and general manager of the Western Union Telegraph Company, New York, has filed an application with Francis W. Jones, president, for membership in the Magnetic Club.

Mr. Henry D. Estabrook, of Chicago, Ill., has been appointed an assistant to Geo. H. Fearons, the general attorney for the Western Union Telegraph Company, with headquarters in New York, to take effect on September 1.

Mr. J. C. Barclay, electrical engineer of the Western Union Telegraph Company, New York, has returned from a Southern trip, which included visits to Lynchburg, Chattanooga, Atlanta, Augusta, Savannah and other points. As a result of these visits, storage battery plants will be installed in Charlotte, N. C., Augusta, Mobile, Montgomery and Birmingham. New specially constructed switchboards will be installed at Chattanooga and Birmingham, and an up-to-date dynamotor plant will replace the present storage battery at Atlanta, Ga., and other improvements in the service in the South will follow.

### Resignations and Appointments.

Mr. H. H. Arthur has resigned from the Western Union at Pittsburg, Pa., to accept a position as manager of the telegraph department of the Santa Fé Railroad general offices, at Chicago, Ill.

Mr. Charles B. Slawter, for many years connected with the Easton, Pa., office of the Western Union Telegraph Company, has been promoted to the managership, vice C. B. Sharp, resigned.

Mr. George Maguire has been appointed cashier of the Western Union Telegraph Company at Galveston, Tex., vice Gustav Schultz, promoted to the managership. Mr. Maguire is an old employee of the company.

Mr. Frank C. Woodworth, manager of the Western Union Telegraph Company at Great Falls, Mont., has resigned to enter the commission business and will represent the firm of A. J. Cummings & Co., commission brokers.

Mr. W. D. Landon, assistant foreman of the Western Union Telegraph Company at White River Junction, Vt., has been promoted to be assistant general foreman for the New England district, with headquarters at Boston, Mass.

Mr. Bert H. King, manager at Ithaca, N. Y., has been appointed manager of the Postal Telegraph-Cable Company's office at Elmira, N. Y., vice Charles L. Jones, resigned, to devote his time to the manufacture of proprietary medicines.

### Recent New York Visitors.

Mr. W. W. Splane, superintendent of telegraph of the Standard Oil Co., Oil City, Pa.

Mr. J. G. Splane, manager of telegraph department Standard Oil Co., Pittsburg, Pa.

Mr. E. J. Nally, general superintendent of the Postal Telegraph-Cable Company, Chicago, Ill.

Mr. W. S. Logue, general Western manager of the Edison Manufacturing Company, Chicago, Ill.

Mr. C. M. Baker, assistant general superintendent of the Postal Telegraph-Cable Company, Chicago, Ill.

### General Mention.

Mr. W. E. Peirce, of the Washington, D. C., Western Union office, has been transferred to Lynchburg, Va., temporarily as quad man. Mr. Peirce has recently taken an electrical course in one of the colleges.

Mr. W. A. Craig, one of the best known gentlemen in telegraph circles at Houston, Tex., now connected with the Postal Telegraph-Cable Company of Texas, is acting as agent for TELEGRAPH AGE at that point and vicinity. Mr. Craig desires his friends not to overlook him when they have business connected with TELEGRAPH AGE to place.

One of the best known dentists in New York is Dr. Bissell B. Palmer, whose office is located at The Pocantico, 1690 Broadway, New York. Dr. Palmer left the telegraph service in New York City in 1885 to practice dentistry. He was well-known as a telegrapher and his success in his adopted profession is a source of gratification to a large circle of friends.

### The Cable.

The cable steamer Silvertown, carrying the first section of the Pacific cable, has sailed from London for San Francisco and the work of laying the cable between that city and Honolulu will commence immediately on the ship's arrival.

The Commercial Pacific Cable Company signed a contract with the Telegraph Construction Company of London, Eng., on July 16 for the manufacture and laying of its cable from Honolulu to Manila, touching midway at Guam. The Construction Company guaranteed to complete the cable by June, 1903, providing the Government surveys can be obtained.

### The Railroad.

Mr. F. J. Spaford, formerly superintendent of telegraph for the Burlington, Cedar Rapids & Northern Railroad Company, has been appointed assistant superintendent of telegraph for the Chicago, Rock Island & Pacific Railroad Company, with headquarters in Chicago.

Mr. Horace E. Chace has been appointed assistant superintendent of telegraph, vice Andrew Smith, deceased, of the Atchison, Topeka and Santa Fé railroad systems, on all lines west of Albuquerque, with headquarters at Los Angeles, Cal.

Lost yesterday, somewhere between sunrise and sunset, two golden hours, each set with sixty diamond minutes. No reward is offered, for they are gone forever.—Horace Mann.

TELEGRAPH AGE will furnish operators with just the kind of practical information they need.

### Compulsory Arbitration.

Judge Murray Tuley, in a paper on "Compulsory Arbitration: Is it Practicable or Advisable," read on July 18 before the convention of the State Bar Association in Chicago, Ill., just after he had been elected president, declared in favor of the settlement of labor disputes by the courts. He said this could be done if the courts would sustain legislation authorizing the extension of the police power in all such controversies.

"Experiments with laws for compulsory arbitration of labor disputes," he said, "have shown that they tend to destroy the manhood and individuality of employer and employe alike, and that they aid the growth of Socialism. In New Zealand, where such a law has been tried, the officials have reported that petty grievances have been aggravated and great disputes multiplied.

"It is therefore my opinion, from a thorough study of the situation, that strikes and lock-outs must continue until voluntary conciliation and arbitration are arrived at; until capital comes to recognize the rights of labor to a share of profits derived from their joint operation."

Judge Tuley declared it would be a long time before a first-class power or nation would agree to arbitrate with a fifth or tenth class power, and there must first be a great change in their conception of moral principles on the part of the strong in dealing with the weak.

"The strike is the only weapon of the worker," he continued. "When it is unaccompanied by violence it is a perfectly legal weapon, but in all but a few rare instances it seems impossible to have a strike without some violence."

This the speaker attributed to the unemployed and and vicious elements rather than to the body of strikers, who, he held, deplore violence and long ago recognized that might could not win a strike.

"The great difficulty is that neither labor nor capital has realized the community of interests that exists between them. But I want to say that greater heroism and devotion to principles have never been shown by the soldiers in an army from Thermopylae down to date than that of the men in the army of organized laboring men. They have a twelfth commandment. It is, 'Thou shalt not take thy brother's job,' and they keep that commandment. With some of them it is their only commandment.

"But you would cease to wonder that excesses are sometimes committed if you were to put yourself in their places for a time. Until a few years ago a strike was a purely local matter, but this great federation of laboring men, extending into every corner and every industry in our land, and the development of the railway and the telegraph has changed all, and it is now a National or international affair.

"This anthracite coal strike, for instance, is costing the owners and men a million dollars a day—about what the Spanish war cost. Nobody can conceive the indirect losses—perhaps double or treble. It, or any similar strike, may continue until commercial chaos follows and a panic ensues with results more disastrous to the Nation than any war."

Proceeding, Judge Tuley said:

"Here we have the spectacle of one John P. Morgan, who absolutely controls a billion-and-a-quarter-dollar steel combine, this general of finance, before whom the captains of finance cringe and fawn, before whom royalty bows obsequiously, and on whose life great men of finance take out insurance policies, fearing the awful results to finance from his death. This man who stood hat in hand and heard the plea of great financiers and the representatives of working men for the arbitration of the miners' case, walked away indulging in a long supercilious stare.

"Kings have gone mad. Suppose the brain of this man, with his thousand of millions of dollars of interests should give way. Suppose he should arrogantly defy this great federation of labor and precipitate a general cessation of labor in every line. It is believed now he is behind the coal barons in their declaration to the miners that there is 'nothing to arbitrate.' It is believed also by many that the Constitution of the National Civic Federation was suggested by him.

"The disposition to arbitrate appears no longer to exist. The larger the corporation the less it seems to be influenced by humanity. It is only a question of dividends; the smaller the wages, the larger the dividends, and vice versa. The laborer seems to be considered merely a part of the machinery in the establishment.

"The nationalization of railroad, telegraph and telephone lines might do a great deal toward solving the problem. Shall these corporations and employers be placed under public control and restraint? Shall they be forced in some way to submit their disputes to the courts of justice as all other disputes are?"

"I believe a solution lies in this line of action. The courts will eventually rise to the necessity of holding that legislation can be enacted to meet the conditions, and thus make the public welfare the supreme law."

### A New Edition of Phillips' Code.

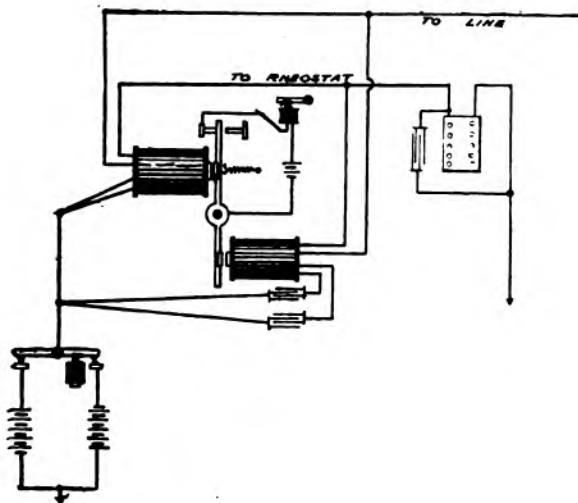
The Phillips Code, by Walter P. Phillips, that ever popular method of shorthand arranged for telegraphic purposes, has once again made its re-appearance in a new edition in familiar form, from the press of TELEGRAPH AGE. The work has been carefully revised and brought strictly up-to-date by Mr. A. P.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

Operators will find a fund of practical information in every issue of TELEGRAPH AGE.

### Bridging Over the Periods of Reversals.

BY D. B. GRANDY, OF ST LOUIS, MO.

I enclose herewith a sketch of a method of bridging over the period of reversal in the neutral relay of a quadruplex, with which I obtained results I have never seen equalled by any other method. The sketch shows only the neutral relay with its connections. The relay has two magnets acting in the same direction on a common armature. Both magnet coils are differentially wound. The upper magnet is connected to line and rheostat in the usual manner. The lower magnet is also connected to line and rheostat, but in each circuit of this magnet a condenser is introduced, of sufficient capacity to produce the required effect on the magnet. The balance in the lower magnet will be disturbed only by changes in the polarity or potential of the incom-



METHOD OF BRIDGING OVER THE PERIOD OF REVERSAL.

ing current. During reversals of that current, at the moment of "no current," the condenser on the line side of the auxiliary magnet discharges, momentarily magnetizing its core and holding the armature during the period of no current in the upper, or regular, relay magnet. This action of the auxiliary magnet occurs precisely at the moment when it is needed, namely, at the time of "no current" from the line; and as its core is free from magnetism except when momentarily affected by a disturbance in the balance of its condenser circuits, it is always ready to respond to the charge and discharge of the condenser connected to line.

In the Smith arrangement, the condenser circuit being on the same core with the line and rheostat circuits, its only effect was to hasten the change in the polarity of the relay core, so that the actual moment of "no current" remained, though shortened.

In the F. W. Jones arrangement, the action of the auxiliary induced current from the "Inductorium" comes too late to be of the best efficiency, and causes a tendency to "stick" in the relay action as a whole.

The arrangement shown was patented by me in 1895 and by its use messages were actually received in St. Louis on the neutral side of a Chicago quadruplex with a local sounder connected to the front contact points as shown. The only modification from the ordinary relay being a light spring on the contact point of the relay lever. Aside from a slight jar, the signals were perfect, and entirely readable, although of course not a practical success, except to illustrate the efficiency of the arrangement in bridging over reversals.

### Telegraph Statistics.

Some comparative tables concerning the telegraph service in several European cities are published by the Electrical Review of London. One table shows the average time occupied in each city by a message at the various stages of its transmission; the delay occurring in the transmitting office is always the largest; next comes the time required for transmission; the delay in the receiving station is smallest. A second table shows the average number of messages per day for different cities, the approximate number of staff and the average daily work of each member of the staff. The last figure is largest in Budapest and smallest in Bucharest; in Budapest the number of telegrams per employee per day averages 96.8, in Bucharest 33.3; in London and Paris the average number of telegrams daily are 475,000 and 120,000, respectively; the number of staff, 5,000 and 1,300, and the number of telegrams per employee per day, 95 and 92.3.

### The Telegraphs of Salvador.

A recent report of the Director-General of the Department of Telegraph and Telephones of the Republic shows that there were 138 telegraph and 61 telephone offices in operation in Salvador in 1901, as compared with 117 telegraph and 49 telephone offices in 1900. The number of employes in 1901 in the two branches of the government service referred to was 433. The telegraph system of the country in 1901 consisted of 2,098 miles of telegraph lines, as compared with 2,029 miles in 1900. There were 1,032 miles of telephone lines in operation in 1901, as compared with 959 miles in 1900. The total length of the telegraph and telephone systems of the nation in 1901 aggregated 3,130 miles.

T. M. B. ASSOCIATION.—Assessment No. 396 has been levied to meet the claims arising from the deaths of James H. McNally, at Buffalo, N. Y.; Wayne H. Graves, at St. Louis, Mo.; Millard F. Campbell, at Wilburton, I. T.; John H. Emerick, at Brooklyn, N. Y., and Frank J. Temple, at Bangor, Me.

A Brooklyn operator a few night since before starting in to send a lot of "red" messages to New York, said, "Here are a lot of strawberries." The New York operator instantly replied, "Minute, till I get some short cake blanks to put them on."

### Telegraphy and Photography Are Twins.

BY FRANCIS W. JONES.

Many telegraphers will remember the appearance of a very handsome and useful Handbook of Electrical Diagrams which appeared over a quarter of a century ago, the authors being Charles H. Davis and Frank B. Rae. The superb plates were from diagrams made by Mr. Davis, whose fine artistic eye and hand were very much in evidence. It is a pleasure to note the phenomenal advance Mr. Davis has made from what must now seem to him a very crude beginning but what contained the latent germ of his artistic talent. He stands at present as one of the leading photographers of the world with a studio, under the name of Davis and Sanford, in Fifth avenue, New York. His display of photographic samples is a dream of loveliness and perfection of the art, and his grand mansion on Riverside Drive and 80th street, occupied by himself and a most charming wife, is substantial evidence of the value in which the public for several years has held his professional services. This good fortune falling to Mr. Davis, an old time telegrapher, is peculiarly fitting when it is remembered that, Prof. S. F. B. Morse, the inventor of the telegraph, was the first one to bring to America the great discovery of Daguerre of France. A description of Daguerre's process, which was then new, was communicated by letter from Paris by Prof. Morse to his brothers in New York and was published in the New York Observer, April 20, 1839, two years after Morse had constructed his first telegraph model. It took fifteen minutes exposure of a plate at that time to secure a picture and this was trying on the eyes of the sitter. On this account Daguerre was skeptical of ever being able to take portraits of living persons. For out of door views Prof. Morse said in above letter: "The pictures are produced on a metallic surface about seven by five inches and resemble aquatint engravings for they are simple chiaro-oscuro and not in colors. But the exquisite minuteness of the delineation cannot be conceived. No painting or engraving ever approached it. For example, in a view of the street a distant sign would be perceived and the eye could just discern that there were lines of letters upon it, but so minute as not to be read with the naked eye. By the assistance of powerful lens, every letter was distinctly legible, and so also were the minutest breaks and lines in the walls and buildings and pavements."

In 1839 the French Government purchased from Daguerre his most wonderful art and presented it to the world for its free use and enjoyment. Several years previously a Frenchman named Niepce had succeeded in getting crude outlines of natural objects upon sensitized plates, but could not fix them permanently. From this Daguerre proceeded to success. Niepce had died before this, but through possession by Daguerre of the Divine quality of gratitude together with his other great gifts, he recognized the continued validity of a contract he had with Niepce and shared with his widow and

son the fruits of the perfected discovery due alone to Daguerre.

As soon as the process was made public, Daguerre sent all the necessary information to Prof. Morse, who put the art into use without delay in "the palace of the Sun," erected by his brothers on top of the Morse building, corner of Nassau and Beekman streets, New York City. Prof. Morse was also assisted by his colleague, Prof. John W. Draper of the New York City University, who was instrumental in perfecting the process of securing portraits.

While Prof. Morse was in Paris, in 1839, a very curious thing happened. He had invited Daguerre to examine his telegraph system which he had on exhibition and also asked permission to see Daguerre's wonderful picture-taking discoveries which were creating the most intense excitement in the scientific world. On March 7th, Prof. Morse made his visit to Daguerre's rooms in the Diorama, and the visit was returned by Daguerre at noon the next day to see the Morse telegraph, and while there the Diorama was burned down and with it Daguerre's house and all his experimental apparatus and papers, but his marvelous brain preserved the "blessed art that can immortalize."

### The Irony of Fate.

Victor Nimault, formerly an operator in the employ of the French telegraph service, died recently on Devil's Island, the French convict settlement off Cayenne. He was the man who it is claimed invented and patented the telegraphic system since used in France and known as the multiple transmission system. This was thirty years ago. Coincident with his invention M. Baudot invented a somewhat similar apparatus, which, it is said, because of official countenance, found favor with M. Raynaud, the director of the telegraphic department, and was adopted. Stung by the injustice done him, and defeated in several suits brought to establish his claims, Nimault shot and fatally wounded M. Raynaud, an act for which he was tried, sentenced to imprisonment for life, and in due course was sent out to Cayenne. Thirty years having elapsed, he was recently pardoned by President Loubet. A subscription made by his friends in France left by the same boat which took out his pardon. But it arrived too late, for Victor Nimault, who had been ill for some time, died the day before port was made. The irony of it all is that poor Nimault's system has been in use in France for many years now; for, after he was sentenced, it was found to be preferable to the one adopted and approved by Raynaud, the then director of the telegraphic department.

### Directory of Telegraph Organizations.

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

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

### Henry H. Ward.

The transfer of Mr. Henry H. Ward, who has acted as cashier of the Western Union Telegraph Company, at 195 Broadway, N. Y., for over a quarter of a century, to the American District Telegraph Company, removes from the telegraph service a well known personality, an able official, systematic and untiring in his methods, and an affable gentleman who has gained a host of warm and steadfast friends. Mr. Ward is fully entitled to be referred to as an "old-timer," and in this case the term carries with it an endearing sense of comradeship to many, for it was back in the spring of 1848, fifty-four years ago, that the now retiring cashier commenced his telegraph life at Springfield, Mass. At that time the telegraph system between New York and Boston consisted of but a single wire with way stations at Stam-



HENRY H. WARD,

Who has been transferred to the American District Telegraph Company.

ford, Bridgeport, New Haven, Hartford, Springfield and Worcester. It was to the latter place that the subject of our sketch was soon transferred.

The manager at Worcester was a dignitary known as "Professor" Strong, a man who was credited with knowing everything about electricity. He was also something of a mechanic and illustrated his ability in manufacturing small brass switches for moving upon brass screw heads whereby complete results in changing instruments and in switching wires were obtained. The young operator gained experience by assisting in these manufactures and in their application to the lines. A year had not passed when a manager was needed for temporary service at Norwich, Conn., to which place Ward was sent, a month later being placed in the New York office then at No. 5 Hanover street. Three months in

New York did much to develop young Ward as a telegrapher, and at the end of that period he was transferred to Boston, and soon after to Portland, Me., as manager. That city was considered an important post, for Portland was the repeating point for all down east business. There were then no repeaters, but everything was copied and re-sent. Steamer news from Halifax was an important and voluminous matter to handle and waiting at night for it at fifty cents per hour after 9 o'clock, was a thing to be appreciated, inasmuch as salaries in those days were ranging from but \$300 to \$400 per annum. At Portland, in 1850, Mr. Ward began receiving messages by sound much to the wonder of L. L. Sadler, the superintendent.

In 1851 Mr. Ward was appointed "first operator" in the Boston office, taking the place of the renowned "Billy" Porter. There were then but two Morse wires to New York, one for "way," the other for "through" business. Registers and paper were commonly used. The through wire was supplied with a copyist. Work by sound was not very general but from time to time was practiced, although the use of paper in the registers was required, and reading by sound was prohibited by the officials.

In 1863 Mr. Ward was called to the New York office, then at 145 Broadway. The growth of line and absorption of opposition and connecting companies had progressed. At this period the line east and south of New York were controlled by the American Telegraph Company. The western business was handled by the New York, Albany and Buffalo Telegraph Company.

Mr. Ward continued with the American Telegraph Company as assistant manager and manager of the general office until 1865, when the appointment of superintendent of the Metropolitan District was conferred upon him.

In 1866 the Atlantic cable having been brought to successful operation, he was appointed superintendent of the cable company's affairs. He represented their interests until 1874, when he was made secretary and treasurer of the Gold and Stock Telegraph Company, a position he relinquished in December, 1875, to accept the appointment from which, after years of faithful service, he now withdraws.

### Postal Telegraphy.

There are numerous considerations that will make the American people pause long before giving their approval to the scheme of Government ownership of the telegraph system, says the New Orleans States. The public is not unmindful of the fact that the Government has been in the habit of stopping the running of Sunday mail trains and the delivery of the mails on Sunday. In view of this fact it is reasonable to assume that in the event the Government takes over the telegraph lines the offices would be closed on Sunday for both newspaper and private despatches, as the Sunday mails are now stopped wherever practicable.

### Manager Schultz at Galveston.

Mr. Gustav Schultz, cashier of the Western Union Telegraph Company at Galveston, Tex., who has been acting manager of that office since Mr. Judson C. Smith was promoted to the managership at Chicago, has been advanced to the position of manager, as announced July 16.



GUSTAV SCHULTZ,

The new Western Union Manager at Galveston, Tex.

The promotion of Mr. Schultz comes as a well earned reward and substantial recognition of his long and faithful service. He entered the employ of the Western Union at Galveston twenty years ago in the humble capacity of messenger boy. He has never worked anywhere else, and this means that he has climbed the ladder of success step by step and is now listed among the directory of officers. But he never allowed himself to grow above his position and while working his way along the road to rank and promotion he never forgot his friends and never forgot his duty to the company. Everybody in Galveston knows "Gus" Schultz, and everybody is his friend. In commercial circles he is recognized as eminently qualified for the managership and with the employes of the Western Union he is regarded as the right man in the right place.

### In Behalf of Employer and Employee.

The National Convention of Employer and Employee will be held in Minneapolis, Minn., from Sept. 22 to 26. The meeting will be under the auspices of the eight-hour league and the citizens of Minneapolis. This national gathering is designed to afford an opportunity for the free exchange of ideas on the present labor problem. It is an attempt to inaugurate a great educational movement in which all sides are to participate and work in harmony for a common purpose, namely, a better understanding

and a more satisfactory adjustment of the relation between employer and employee. The promoters of this movement, it is said, have no cure-all to advocate, no propaganda to spread. Their one aim is to afford an opportunity for the two opposing sides in the present labor disputes to get together on neutral ground and calmly talk over the situation.

### The Wire Game Once More.

The wire tapping game is a scheme by which swindlers represent themselves as telegraph operators, and who falsely declare that they have tapped race wires, and show instruments in operation in a private room said to be in actual connection with race tracks. Although the wire scheme has been exposed a hundred times, very frequently some one with more money than brains is caught for thousands of dollars by the simplicity of the "game" and the willingness of the victim to increase his wealth by dishonest methods.

The latest victim of an alleged wire-tapping operation to appear in a New York court was Rudolph Hinds, a bookkeeper of the Putnam House at Fourth avenue and Twenty-sixth street.

Hinds caused the arrest of Francis Wells, twenty-six years old, of No. 209 West Thirty-fifth street, who was arraigned before Magistrate Hogan charged with being an accomplice with two other men, not arrested, in swindling Hinds out of \$5,400.

Hinds told the Magistrate that he had met the two other men through an advertisement offering \$50 a week and half interest in a cash business to a bright man with \$500. The \$500 would be secured, according to the advertisement.

These two men introduced him to Wells, and the three men arranged with him to fund a wire-cutting operation to swindle the local bookmakers.

Hinds alleged that he gave the other men \$400 to begin installing the plant. The day before they had gotten \$25 from him for the same purpose. On July 3 they asked him for \$300 more and the next day secured \$40. He gave them the money readily, he told the Magistrate, and on July 7 they got \$230, on the next day, July 8, he gave them \$520. The last amount he paid them was on July 9, when he gave them a lump sum of \$1,000.

All this money, the men told him, was paid to install a telegraph plant to secure "sure thing" tips. These tips he was to play himself with his own money.

On July 9 the men gave him his first tip. He played it, but the horse did not win. He did not complain, he told the Magistrate, but played another tip. That failed to "make good," he said. After spending \$2,885 in backing tail enders he became suspicious. One thing that made him particularly suspicious, he told the Magistrate, was that one race he had been tipped on had been finished when he got the tip, but he alleged that he played that race also.

"I should like to punish some of these people who work this game," said the Magistrate, "but in this case I don't see sufficient evidence against the prisoner to warrant my holding him."

**Typewriter Exchanges**

**SELL GOOD MACHINES  
AND ALL TITLES ARE GUARANTEED.**

**EIGHT STORES**

NEW YORK - 1½ BARCLAY ST.  
 BOSTON - 38 BROMFIELD ST.  
 BALTIMORE - 5 NO CALVERT ST.  
 CHICAGO - 124 LA SALLE ST.  
 KANSAS CITY - 818 WYANDOTTE ST.  
 PITTSBURG - 432 DIAMOND ST.  
 ST. LOUIS - 208 NORTH 9TH ST.  
 SAN FRANCISCO - 536 CALIFORNIA ST.

W.A.V.O.

# The Smith Premier Typewriter



GRAND PRIX, \*  
PARIS, 1900.  
HIGHEST AWARD  
POSSIBLE.



Favorite of operators on  
Press wires. Complete  
Keyboard. Always ready.  
Never out of order.



Simple, Durable,  
Light Touch,  
Strong Manifold.

## THE SMITH PREMIER TYPEWRITER COMPANY

SYRACUSE, N. Y., U. S. A.

### THE GAMEWELL FIRE ALARM TEL. CO.

19 BARCLAY ST., NEW YORK.

Gold Medal awarded at Berlin, Germany. Ex-  
position of Appliances for Fire Pre-  
vention and Fire Extinguishment.

**FIRE ALARM and POLICE  
SIGNAL TELEGRAPHS  
For Cities and Towns.**

Over 1,000 Plants in Actual Service.

SELLING AGENTS:

Frank C. Stover,  
161-163 Randolph Street, Chicago, Ill.  
A. J. Coffee,  
230 Kearney Street, San Francisco, Cal.  
Oliver P. Crocker, Atlanta, Ga.  
Wm. E. Decrow,  
178 Devonshire Street, Boston, Mass.  
Southern Electric Co.,  
Hoen Building, Baltimore, Md.  
Webb Candler, Richmond, Ind.  
Utica Fire-Alarm Telegraph Co., Utica, N. Y.

## ERICSSON -- BEST!

THAT IS JUST WHAT THEY ARE. Made for over thirty years.



Used in every part of the world. For all purposes to all  
kinds of people. We make the Telephones for indoor and  
outdoor purposes. Wall or Desk Sets. We have satisfied  
a number of people and would like to satisfy you. We  
know we can and want you to know it.



ERICSSON TELEPHONE CO., 296 BROADWAY,  
NEW YORK CITY.

### Rider Agents Wanted



In each town, to help us sell overstock of  
high grade bicycles at half factory cost.

**New 1902 Models.**

"Bellise," complete \$8.75

"Cossack," Guaranteed High Grade \$9.75

"Siberian," a Beauty \$10.75

"Neudorf," Road Racer \$11.75

no other make or model you want at  
one-third usual price.

Choice of M. & W. or Record tires  
and best equipment on all our bicycles.

Strongest guarantee.

We **SHIP ON APPROVAL**

C O D to any one without a cent deposit

& allow 10 DAYS FREE TRIAL

before purchase is binding.

500 good 2nd-hand wheels \$3 to \$8.

DO NOT BUY a bicycle until you have written for our free

catalog with large photographic engravings and full descriptions.

**MEAD CYCLE CO.** Dept. 123 M Chicago.

## DYNAMOTORS FOR TELEGRAPH WORK

By reason of superior design and construction our  
apparatus gives the best possible commercial value  
under all conditions of service.

## SPRAGUE ELECTRIC CO.

General Offices: 527-531 West 34th Street, New York.



# The Telegraph Age.

Entered as second-class matter at the New York, N. Y., Post Office.

Published on the 1st and 16th of every month.

## TERMS OF SUBSCRIPTION:

One Copy, One Year, - - - -	\$1.50
One Copy, Six Months, - - - -	.75
Foreign Countries, - - - -	2.00

ADDRESS ALL COMMUNICATIONS TO

**J. B. TALTAVALL, - Editor and Publisher,**  
253 BROADWAY, NEW YORK.

E. H. BOWEN, MANAGER ADVERTISING DEPARTMENT

W. N. GATES, SPECIAL ADV. AGT., GARFIELD BLDG., CLEVELAND, O.

CABLE ADDRESS: "Teleage," New York.  
Telephone, 4143—Cortlandt.

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.

REMITTANCES to Telegraph Age should be made invariably by draft on New York, postal or express order, and never by cash loosely enclosed in an envelope. By the latter method money is liable to be lost, and if so remitted is at the risk of the sender.

NEW YORK, August 1, 1902.

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

### John W. Mackay.

The death of John W. Mackay is a distinct loss to the commercial world. A self made man, he knew fully the value of money; and better still, he knew how to use it. His splendid courage and his energy never failed him. He possessed rare business judgment and capacity, and this, coupled with a generous nature, although sometimes hidden behind a brusque manner, caused him to engage in undertakings that conferred benefit to mankind rather than those which appealed more exclusively to self. This is strikingly exemplified in the history of the Commercial Cable Company and of the Postal Telegraph-Cable Company, both of which, in their inception and conduct reveal the true character of the man. In his attitude before the Government in seeking recognition of his Pacific Commercial Cable enterprise, his declarations of purpose and the proposition embodying governing conditions under which his company would bind itself to act, all testify to a degree of largeness, to patriotism, to honesty and fair-mindedness entitling

John W. Mackay to a high place in the niche of fame in the minds of business men. Nothing more that might be said could raise him to a greater estimate in the just esteem of his fellow countrymen.

### Power That Comes From Knowledge.

To manifest a studious and intelligent interest and enthusiasm in one's work is usually indicative of an honest and forceful character. Without the manly exercise of these attributes the daily routine and effort of life becomes dulled and disappointment and failure is most likely to be the result. Unfortunately, in many establishments one but too often observes the tendency to shirk on the part of some of the employees; the indulgence in cynical criticism of the employing company or firm; the disposition to perform the allotted work grudgingly and with a sluggishness of purpose, clearly selfish in intent and utterly hostile, if they could but realize it, to their own well-being, happiness and future prosperity.

It is a deplorable fact that men will deliberately place themselves in antagonism to their own welfare, for, broadly speaking, in the majority of cases, men rise or fall in the scale of success in accordance with their own deserts. It is true we often hear it said that corporations are soulless, that the management has no sympathy with the men employed. To a certain extent this may be true, and it is unfortunate that it should be so, but that does not relieve the individual from the exercise of fidelity and responsibility of action in the premises, a duty he owes as well to his own manhood in determining and shaping his own personal career. We cannot express ourselves too strongly on this point, and it is a question that every employe, no matter how or by whom employed, should carefully consider and decide.

Coming down to the telegraphic field, it is not so much at the moment what the Postal Telegraph-Cable Company or the Western Union Telegraph Company may do in recognition of or in lending encouragement to the men in their employ, desirable and important as that may be, as it is that the employes themselves shall be governed by proper devotion to duty and manly earnestness of conduct. For, sooner or later, the man who fortifies himself with an intelligent grasp of his business will earn and command respect and recognition. Possibly it may not be in the telegraphic field, but the experience and knowledge gained by tenacity of purpose, by close application, if along the right lines, increases his opportunities at least to enter successfully other avocations.

But the telegraph itself has constant need to recruit from its own ranks in order to fill executive places. In this connection it should be borne in mind that every one of the higher appointments recently made by one of the great companies were filled by men called from lower to higher planes, men who had risen from the bottom, the large majority commencing as boys in the messenger service. It was by no accident that they received recognition and reward; it was for merit, pure and simple,

gained by industry, study and faithfulness. In these incidents of the late promotions, an object lesson of possibilities is portrayed with such vividness that no one may fail to read and understand the full meaning thus conveyed.

Let those who complain the loudest at non-success pause and reconsider their positions. Earnest self-help will uplift many a man and place him on the road to success, if he will but faithfully apply the right means. Do not be deceived with the idea that the individual, if he shows himself competent, made of the right stuff, is being overlooked. The chances are that he is the man that is being watched; one day he will be wanted to take his place in a more important position in the "soulless" corporation.

Is it likely under such circumstances that his conception of justice and right will be blunted when he thus accepts a reward which common sense approves and declares to be right and well-earned; because having himself come up through all grades from the bottom to the top, knowing all the conditions of service, will he not rather, in turn, understand and have a broader sympathy for those yet engaged in the upward struggle. Give your superior officers earnest support, boys; some of you will need it also in the days and years yet to come.

That there is "room at the top of the ladder" is a truism as pertinent to-day as when the expression was first uttered. Education, fidelity, perseverance, patience and tact are cardinal virtues which together mold and shape an ability that will eventually overcome all opposition in the commercial economy of things, obtain recognition and secure the reward which not only cannot be denied, but which will be gladly bestowed.

#### An Unprecedented Sale.

The sale of the "Pocket Edition of Diagrams and Complete Information for Telegraph Engineers and Students," by Willis H. Jones, the electrical editor of TELEGRAPH AGE, is without precedent in the history of telegraphic literature. This is due to the fact that the telegrapher is getting exactly what he wants in the way of detailed and illustrated information regarding every possible phase of the telegraph. And it is told, not in theory by a theorist, but in a clear, simple, comprehensive and straightforward manner by a thoroughly practical and busily employed engineer who knows his subject from A to Z. The volume was published in the middle of June last, only, yet the entire edition will, it is expected, be exhausted before the end of August, so enormous has been the demand for this great work. Operators all over the country who have read the book are enthusiastic in their praise of it.

How the book is regarded by the electrical engineers of the Western Union Telegraph Company and of the Postal Telegraph-Cable Company may be judged by the two splendid endorsements printed herewith.

Mr. J. C. Barclay, electrical engineer of the Western Union Telegraph Company, New York, writes: "I have examined carefully the Pocket Edition of Diagrams and Complete Information for Telegraph

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

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

#### Coronation Telegraph Work.

The postponement of the Coronation ceremony in England and the subsequent rejoicings naturally entailed an immense amount of additional work upon the postal telegraph department in London. The amount of telegraphic work which passed through the central telegraph office on June 25 and 26 was altogether unprecedented and represented considerably over 300,000 messages per day at that office alone, or more than 50 per cent. increase over the normal, while in connection with the postponed naval review, the work at Portsmouth and Ryde, and in the immediate vicinity of the ships, represented an enormous increase per day in excess of the ordinary traffic. The pressure on the delivery department was, as might be imagined, of an exceedingly heavy nature. Some delay occurred in the London suburban traffic, but the general London and provincial business was handled without hitch. The number of foreign telegrams and the very large additional amount of press work proved a heavy tax upon the resources of the department. There was employed at the central telegraph office alone a staff of over 3,500 operators.

FLEXIBLE RUBBER KEY KNOBS made to fit over the hard rubber telegraph Key Knob, render the touch easy to the finger and improves the sending of the operator. These Key Knobs are sold at twenty-five cents apiece. Those who once try them are certain to use them permanently. For sale (send stamps) by TELEGRAPH AGE, 253 Broadway, New York.

#### Fourth of July Outing of the Commercial Cable Company, London, Eng.

The fifth annual river trip of the Commercial Cable Company, at London, England, took place on July 4th, and was, as has heretofore been the case, a most successful affair. The party, which included Hon. A. J. White, of Halifax, N. S., Mr. Albert Beck, secretary of the company, and Mr. F. Ward, the manager in England, numbered forty-five, and left Paddington by a special saloon train for Marlow, where cold luncheon was taken at the Greyhound Hotel. The party then embarked on the fine launch, "The Windsor Belle," for Henley, where the long array of houseboats and preparations for the coming regatta caused great interest. Various sports were indulged in and on returning to Marlow a sumptuous dinner was in readiness. After the dinner, to which full justice was done, the usual loyal toasts were duly honored, and effective speeches made by Hon. A. J. White, and Messrs. Albert Beck, F. Ward, E. G. Phillips and W. M. Kent. The oratory was followed by several vocal selections by Messrs. Sterling, of Waterville, and Clarke, of London. The party returned to town after spending a most enjoyable day. The entire arrangements were in the hands of Messrs. Kent and Phillips, to whom all credit is due for their admirable management.

#### The Postal Declares Its Position.

In conversation with one of the highest officials of the Postal Telegraph-Cable Company a few days ago in regard to the attitude of the telegraph companies toward the new telegraphers' union, now organizing, the following statement was made:

"It is the policy of the Postal company to encourage in its employes a spirit of loyalty to the company's interests and an ambition to fit themselves for advancement in the service, to retain faithful employes, and to recognize meritorious service by promoting its own employes whenever opportunity occurs. Whenever there is a promotion to be made or a position to be filled, the officers seek in their own service for the man who is competent. The wages paid are as liberal as the revenue of the companies will warrant. While to the casual observer the rate of wages paid may not seem to increase in direct ratio to the increase of the company's business, it should be borne in mind that the increased expense of operation due to the demand of the public for quick service, the exactions of legislation regarding taxes, licenses and regulations of rates, the rulings of the courts as to damage claims, the cost of rights of way, the competition of telephone companies, etc., have all tended to reduce the net earnings. Nevertheless there has been no reduction in the scale of wages paid."

Referring to labor unions, he said that so far as his company was concerned, "the management does not object to labor organizations as such, nor to having its employes members thereof. Such membership will not of itself act as a bar to employment by the company, but on the other hand, non-members of

unions will not be excluded from the service. Of course the company expects and requires loyalty and faithful observance of the rules and regulations necessary for the proper conduct of the business. The management has no desire to interfere with the personal liberty of any one nor to decide for any employe whether it is wise for him to so bind himself to any organization as to prevent his liberty of action in protecting his personal interests. At the same time, on the broad question, the management is of the opinion that capable men in the service may be unwise in joining labor unions, for the reason that a member of such an organization, however capable and worthy of promotion, usually places himself in the same class with the least capable member of the organization and pledges himself to obey without question the orders of leaders who are too frequently actuated by selfish motives and lacking in good judgement, and whose demands in regard to increases of salary or reduction of hours of labor are almost always made with the condition that increased or reduced hours shall apply to all members of the association alike without regard to individual efficiency. It should also be borne in mind that by reason of the nature of the telegraph business it is impracticable to arbitrarily fix hours of duty or rates of compensation regardless of the needs of the business or the merit of individual employes."

#### Only a Cigar.

Rev. Dr. Huntington, rector of Grace Church, New York, told this story on himself at a recent banquet of the Clerical Club, apropos of the cigars then being enjoyed, says the New York Times.

"I was waiting one day in the Grand Central Station," he said, "when my attention was attracted by a controversy between a young telegraph operator and a man standing outside his window. The man was standing with his back to me, but I saw that he was offering the operator something, and that the operator twice declined to take it. Presumably it was a telegram so worded that it might not pass according to the company's rules, and the operator had to be firm in adhering to the laws of censorship. When the man had walked away I thought: Now here is a chance to say a good word in season and encourage this man in fidelity to duty. So I sauntered up to his window and said:

"That was a commendable act, young man. It takes lots of moral courage to say no, but—"

"I had gotten on that far while he stood looking at me blankly. All of a sudden he appeared to comprehend and he interrupted with:

"Yes. And did you notice the end was bit off it already? If it was any good, why didn't he go on and smoke it himself?"

The testimony of progressive operators is that TELEGRAPH AGE is so thoroughly comprehensive in character as to make it absolutely indispensable to those who would keep informed. Its technical articles are of high practical value. Write for a free sample copy.

### Death of John W. Mackay.

John William Mackay, president of the Commercial Cable Company and of the Postal Telegraph-Cable Company, New York, died of pneumonia at his London, England, home on July 20, after an illness of less than a week, superinduced by becoming overheated. Mr. Mackay had been in London for some time, having gone thither in the interest of the Pacific Commercial Cable. His sudden death removes from telegraph circles one of its most conspicuous and forceful figures.

Of all the millionaires in this country, no one was more thoroughly American than John W. Mackay, and no one among them all has derived his fortune more legitimately. His money did not come from speculations, watered stocks, nor gambling in any form, but from years of hard service, beginning with practical work with the pick, and rising because of his ability and his industry, to the superintendence of mining operations and thence to the ownership of such properties. He was already a wealthy man when he became the principal owner of the famous Comstock mines at Virginia City, Nevada, which in the course of a few years, added not far from a hundred and fifty millions of dollars to the gold and silver product of the country, and which gave him the title of the "bonanza king."

Mr. Mackay's interest in the telegraph business may almost be said to have been the result of accident rather than of design on his part. He had long been deeply impressed with the wonderful progress of the telegraph, and the vast influence it exercises in the development of commerce and of civilization, but his first investment in connection with it was made without the expectation of becoming a leader, and much less a controlling spirit. His original purpose was rather to help others whom he was led to believe well understood the merit of their projects, but who lacked the capital for carrying them out. The laying of the Commercial cables was followed by control of the Postal Telegraph, as it was found necessary to the complete success of the cable service, to establish land line connections, particularly with the centres of trade and commerce throughout the country. His desire to accomplish this result quickly, made him the more ready to listen to persons who were seeking to control certain of the fragmentary systems of telegraph that were in operation in 1884. Instead, however, of these alliances facilitating and expediting the growth of the telegraph system which he desired to construct, they proved a source of serious trouble, litigation, disappointment and loss. But this did not prevent his going forward with the work to which he had put his hand, and the new lines and splendid equipment of the Postal Telegraph-Cable Company, which now comprises a vast land system, is due to his individual faith and courage in the enterprise, backed by an unflinching energy of purpose.

It was due to Mr. Mackay, when the completion of the first Commercial Cable in 1884 enabled him to act, that the cable rate of twenty-five cents a word across the Atlantic was, after a prolonged rate war, finally established.

Mr. Mackay was born in Dublin, Ireland, of

Scotch-Irish parentage, November 28, 1831. His parents brought him to New York in 1840 and their home during his boyhood, was on Park Row, in this city. He was among the first to embark for California when the discovery of gold offered such attractions to adventurous, industrious and hardy men. His acquaintance on the Pacific Coast became very extensive, and probably no citizen of that section was more popular, if as much so, as Mr. Mackay. Although somewhat brusque in manner and short and decisive in speech, he was a very approachable man, and possessed of great kindness of heart. To this latter peculiarity may be charged most of whatever mistakes he may have made in his business transactions and alliances. He felt a warm interest in the welfare of all who were in any way connected with him, and appreciated and recognized individual rights to an extent that is true of few men who occupy positions of control, and have large numbers of employes.

An incident in Mr. Mackay's career, from which fatal consequences were narrowly averted, was that of being shot in the back in San Francisco in 1893 by a man who fancied, without reason, that his financial losses were due to Mr. Mackay. The project of laying a cable across the Pacific Ocean by a private company without Government aid to connect this country with the Hawaiian Islands and the Philippines, was due to Mr. Mackay. He recognized the urgent need of such a cable and the enormous advantages that would accrue to this country and to the Government were it laid. With characteristic energy he moved promptly in the matter, and while asking for and awaiting the answer of the Government as to his right to land an ocean cable on the shores of the United States, he courageously placed an order for the construction of the first link in its length, namely, that portion between San Francisco and Honolulu. The contract for the second link, reaching from Honolulu to Manila, was signed but a few days before his death. On the completion of the laying of this cable Mr. Mackay expressed a wish to retire from all further active business.

Mr. Mackay leaves a wife, who was formerly the widow of Dr. Bryant, a step daughter, now the Princess Colonna, and a son, Clarence H. Mackay. Another son, John W. Mackay, Jr., died in 1895.

It was Mr. Mackay's hope that he would live to see his great Pacific cable work completed, but since that was not to be, the man who will carry forward the enterprise will be George G. Ward, the first vice-president and general manager of the Commercial Cable Company. Mr. Ward is probably the greatest expert on the laying of ocean cables in the world. He was with Mr. Mackay when he died.

There will be absolutely no change in the policy or direction of either the Postal Telegraph-Cable Company, or of the Commercial Cable Company.

Mr. W. H. Baker, the general manager of the Postal Telegraph-Cable Company, New York, sent the following message on July 22 to Mr. Ward, who is in London:

Telegrams from officers and employes of the Postal

company in all parts of the country are pouring in, expressing grief and requesting that heartfelt sympathy be conveyed to Mrs. Mackay and her family in their great sorrow. They feel that they have not alone lost their beloved president but also a true and kind friend. They will cherish his memory with grateful hearts.

Mr. Mackay's remains will rest in the splendid mausoleum in Greenwood Cemetery, Brooklyn, New York, constructed at the time of the death of his son, John W. Mackay, Jr.

The last official act performed by Mr. Mackay was the dictation of the following cablegram, sent to Mr. W. W. Cook, the legal representative of the Commercial Pacific Cable Company in New York:

I have read you cablegram to Ward relating to the soundings. The facts are these: The bid guaranteeing to manufacture and lay the cable from Honolulu to Manila, touching at Midway and Guam, by June next, provided we can furnish the necessary soundings, expires on the 21st inst—namely, on Monday next. Our desire has been to complete the cable as early as possible. We supposed the work could not be carried out before the end of next year, but as the contractors are able to handle the shipment of the cable quicker than we expected, it is possible to complete it by next June. It is inexplicable to us why these soundings are withheld, when the Government and the whole country are crying out for the cable. The soundings taken by the Albatross in 1891 by act of Congress to determine the practicability of laying a cable between California and Honolulu were freely distributed by the Navy Department. They were given out to any one who applied for them, and I certainly expected this slight assistance from the Government after I personally explained our plans to the President last October. We shall, of course, go on with the manufacture of the cable, but I can get no guarantee from the contractors as to time of completion, unless the Nero's soundings are forthcoming, as it will be absolutely necessary to send a ship to ascertain a practicable route for the cable before it can be laid. It certainly must be of importance to the Government to have communication established as early as possible. It certainly is to the Commercial Pacific Company.

At a special meeting of the board of directors of the Postal Telegraph-Cable Company, held July 25, 1902, the following was adopted:

Whereas, the Board of Directors of the Postal Telegraph-Cable Company have learned with deep sorrow of the death of John W. Mackay, the founder of this company, a director since its organization, and its president since February, 1901, and

Whereas, it is fitting that his associates in business, who are proud to have been his friends as well, and who knew him best, should place upon the records of this company expressions, however inadequate, of their love for him as a man and their admiration of his character,

Therefore, be it resolved, that in the death of John W. Mackay the members of this board have lost a true friend, the company an unerring guide, the business community a great leader, and the world a benefactor.

He was honest, his name being a synonym for honesty.

He was just, wronging no man.

He was generous, ever aiding the needy.

He was far-seeing, judging correctly men and affairs.

He was humble, seeking no place above his fellows.

He was ambitious, striving not to gain honors, but to do good.

He was courageous, knowing no fear.

He was patient, waiting with confidence for the fruition of his labors.

He was strong, bearing adversity with fortitude, and prosperity without pride.

He was righteous, fearing God and loving his fellowmen.

Fortunate in unlocking by persistent endeavor the treasure house of Nature, he used his vast wealth wisely.

Great in simplicity, earnestness of purpose and fidelity to principles of right, he compelled the admiration and won the love of those who knew him.

And, be it further resolved, that the members of this board tender their heartfelt sympathy to his family in their sorrow, which is shared by the members of this board, the officers and employes of this company, and by thousands of his friends and acquaintances throughout the world.

A special meeting of the board of directors of the Commercial Cable Company was held at the executive offices, New York City, on July 25. The following was unanimously adopted:

It is our sad duty to record in the minutes of this board of directors, the death of our beloved president, Mr. John W. Mackay, which occurred at his home in London on Sunday, July 20, 1902, after an illness of five days.

In making this record, this board desires to record also its high appreciation of the surpassing merit of Mr. Mackay as a man, a citizen and a friend, as well as in his capacity of chief officer of this company. We recognize that the existence of this company is due to his foresight, his courage, his ability and his generosity. We believe that no other man would or could have created a telegraph system of such wide extent, and such merit, under the great oceans and throughout our vast continents, in the midst of such difficulties and discouragements as have surrounded these enterprises almost from their inception. We feel the loss of his command, his counsel and his friendly and encouraging presence as a personal affliction to each one of us, and we know that this feeling exists among all officers and employes throughout the service.

Resolved, that this expression of our appreciation, admiration and affection for our honored president be transmitted to his family, with the assurance of our highest esteem and tenderest sympathy.

Simultaneous with the funeral services in London, a memorial service for Mr. Mackay, conducted by Rev. Father Ducey, was held at St. Leo's Church, on East 28th street, New York, on Tuesday morning, July 29, at eleven o'clock. It was most impressive in character, and attracted a large gathering. On the central isle, in the pews reserved for the purpose, were seated the officials of the Commercial Cable Company and of the Postal Telegraph-Cable Company, as well as many of the operators, together with numerous other telegraph men who had gone thither to pay a last tribute of respect to the man whom all loved and honored. In the audience many well known men of affairs were observed. During the hours of the funeral the executive offices of the

Commercial Cable Company and of the Postal Telegraph-Cable Company were closed.



CLARENCE W. MACKAY,  
The only son of the late John W. Mackay.

**Now an Inspector in Mr. Brooks' Office.**

Mr. Edward P. Griffith, for many years the general wire chief of the Western Union Telegraph Company, New York, has been promoted to the position of inspector in the office of General Superintendent B. Brooks, becoming a member of the personal staff of the latter. Mr. Griffith was born



EDWARD P. GRIFFITH,  
The new Inspector in General Superintendent Brooks' office, Western Union Telegraph Company, New York.  
in Brooklyn, N. Y., in 1858 and entered the telegraph service in his native city in 1872. For six

years he had a varied experience in railroad work and with press associations in different parts of the country. Returning to New York in 1878 he entered the employment of the Western Union Company, where he has since remained, identified principally with the cable service, the race bureau and with southern traffic. He carries with him to his new duties the well wishes of former associates.

**New General Wire Chief at "195."**

Mr. W. A. Van Orden, who has been appointed general wire chief of the Western Union Telegraph Company, New York, succeeding Mr. E. P. Griffith, promoted, has for years been the draughtsman of the company, and has also served in the capacities of traffic chief and quadruplex chief. Having long served as assistant in the department of which he now becomes the head, Mr. Van Orden is thoroughly conversant with all the duties of his new position, and the promotion is both a natural and a just one.



W. A. VAN ORDEN,  
General Wire Chief, Western Union Telegraph Company,  
New York.

and is well earned. As a draughtsman he has accomplished some excellent work. Of his abilities in this regard TELEGRAPH AGE can bear cheerful testimony. Mr. Van Orden was born at Tarrytown, on the Hudson, on June 27, 1855, and began his telegraphic career in 1871 as an operator for the old Franklin Telegraph Company. His entry into the Western Union service dates from 1885.

Mr. Donald Murray, the well-known inventor of the Murray automatic telegraph system, in remitting his subscription to TELEGRAPH AGE from London, Eng., writes of the paper: "It is like food and clothing—hard to do without."

Subscribe for TELEGRAPH AGE, \$1.50 a year.

### Marconi on Wireless Telegraphy.

Mr. Marconi, in his lecture before the Royal Institution in London, sets forth the more recent development of his system of wireless telegraphy, says the *Electrical World and Engineer*, editorially. The new form of wave detector described involves a very interesting principle. In the coherer, the electric resistance of the gap is in a semi-unstable condition. A small variation in the physical condition of the surfaces of adjacent filings in the gap is destined to produce large changes in electrical resistance. From this point of view the coherer is a sensitive conductor in electric instability, and operates by virtue of the changes in electric condition consequent on the passage of electric impulses. The new instrument may be described as a magnetically unstable magnetic circuit, in which small changes of magnetizing force, effected by the influence of received electric impulses, can produce a considerable change in magnetic flux. The permeability curve is artificially steepened in the iron subjected to the magnetizing influence of the received electric waves. Henry showed that electric wireless impulses, traversing small solenoids, were capable of magnetizing steel needles acting as cores, and the new apparatus described is a development of that principle. A special form of induction coil has its primary winding in circuit with the receiving vertical antenna. The secondary winding is in circuit with a telephone. The iron-wire core is subjected to slow cyclic variations of magnetic intensity, but rotating a permanent magnet in the neighborhood of one extremity. During the descent and ascent of the cycle HB curve of the hysteresis loop, and particularly during ascent, the iron is in a critical or unstable magnetic condition, such that a small magnetizing impulse in the primary winding, due to the electrically-received impulse, will develop a relatively large secondary induced current through the telephone.

In order to avoid the presence of insensitive intervals occurring cyclically at the points of the hysteresis loop, the plan has been adopted of making the core in the form of an endless band of iron wires threading through the induction coil, and moving this band steadily past fixed magnets, by clockwork, in such a manner as to bring the part of the band within the coil into the unstable magnetic condition. The iron core of the coil is thus constantly sensitive, and has its youthful sensitiveness perpetually renewed by clockwork. No decohering mechanism is needed, and the speed of operation between the Poldhu (Cornwall) and Poole (Isle of Wight) stations, using this apparatus, is described as being 30 words a minute. Curiously enough, Gramme essayed many years ago to develop a commercial form of continuous-current dynamos, consisting of fixed coils of insulated wire through which an endless band of iron was steadily moved by power. The band was subjected to magnetizing forces during its cyclic path in such a way that the hysteretically varying magnetic flux might constantly cut the coils. Only a feeble e. m. f. was, however, in this way obtainable.

It transpired in the course of the lecture that, from long-distance observations conducted on the Atlantic, signals which could be read at a distance of 2,000 miles from Poldhu at night, could only be read at 700 miles from Poldhu by day. The enormous difference of range was attributed to the influence of solar light upon the transmitting radiator, affecting its discharge. Here lies a field for investigation that should produce a rich harvest of interest.

### Book Notice.

Mary Agnes Byrne is a Western Union telegraph operator of Allegheny, Pa., and has charge of one of the branch offices in that city. Many of our readers will recognize Miss Byrne as a graceful writer for a number of her sketches have, at different times, appeared in *TELEGRAPH AGE*. She is the author of two short stories designed for children, one, "The Little Woman in the Spout," and the other "Roy and Rosyrocks," just published by the Saalfield Publishing Company of Akron, O., New York and Chicago. The stories, relating pleasantly to child life, are told in a simple and charming manner, are wholesome in tone and should command a wide circle of readers among the young. The books are artistic in design are clearly printed on heavy plate paper, are attractively bound and handsomely illustrated. Miss Byrne is to be congratulated on the commendable manner in which she has made her entry into the field of authorship. The price of these books is \$1.00 each.

### Setting Bones by Telegraph.

The London Chronicle says: In connection with the cession of the postal and telegraphic services from the states to the commonwealth, a curious discovery has been made. For many years it has been the practice in the remote parts of South Australia, when people felt indisposed, to telegraph their symptoms to some Adelaide doctor, who wired back a prescription. Every country post office was supplied by a paternal government with a medicine chest and there the telegraphed prescriptions were made up by the postmaster. But the federal postmaster general thinks the system open to abuse, and has ordered the postmasters to do no more dispensing. It certainly does look risky at first sight, but the fact that no one has ever heard of anybody being killed by a post office prescription argues that it has worked pretty well in the past. One leading Adelaide surgeon proudly boasts that he has set broken legs by telegraph.

Mr. P. C. Cummings, manager of the Western Union Telegraph Company, at Jackson, Miss., in a recent letter writes: "For sometime I have been without *TELEGRAPH AGE* and find it an uphill piece of business to continue in this manner and will thank you to credit me with one year's subscription."

Kindness is the golden chain by which society is bound together.—Goethe.

## LETTERS FROM OUR AGENTS.

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

## BUFFALO, N. Y., WESTERN UNION.

Mr. J. W. Tillinghast, the former manager of this office, invited the local managing staff of the company on Sunday, July 20th, to his summer home on Grand Island, to meet his successor, Mr. W. A. Sawyer. The party comprised Mr. Tillinghast, the host, Mr. Sawyer, the guest of honor, the department chiefs and the managers of the principal branch offices. After an exchange of greetings the party sat down to a sumptuous dinner, and then viewing the gardens and other attractive features of Mr. Tillinghast's beautiful villa, were treated to a trip on the Niagara River on the host's steam yacht Cheemaun. The affair was in all respects a very enjoyable one. Mr. Sawyer, the new manager, was confessedly well pleased with the warmth and cordiality of his reception, and in a graceful little speech paid his predecessor a high compliment and expressed the hope that the same loyal and hearty co-operation which the managing staff had always given to the former manager, as he himself had declared, would be likewise his own good fortune to meet. The party consisted of J. W. Tillinghast, W. A. Sawyer, F. Kitton, J. A. Pferd, J. Maxwell, J. Lapey, M. Buell, G. Burnett, A. J. Hall, C. C. Osterhout, R. B. Ferguson, J. F. Burgdorf, F. J. Diener and J. G. McNerny.

## JACKSONVILLE, FLA., WESTERN UNION.

This office is now up-to-date in its appointments; we have storage batteries and all modern improvements. Mr. J. E. Peacock is a competent manager and a genial gentleman as well. Mr. G. C. Harris has been chief operator for the last ten years. Mr. W. G. Peebles is night chief operator and Mr. E. A. Maske all night chief. Mr. D. W. Travis, our traffic chief for the past year, was presented by the winter force with a handsome watch charm just before their departure for their northern homes.

Our force at present is constituted as follows: J. Frank McClellan, wire chief (new appointment, but most worthily bestowed); A. E. Heston, Mrs. Heston, W. A. and F. H. Wiggs, F. L. Hall, Miss Bessie Baker, Miss Marie May, R. T. Adams, J. B. Austin, Dunham Coxetter, T. F. Wallace, Messrs. Carroll and Seigler, A. B. Hernandez, H. M. Killian, W. H. Romydy, Elwood Salmon, Paul Heston, R. S. Telar, V. G. Shearer, H. R. Stoy, Hal Stoy, Miss Bessie Gay, Fred R. Mason, Harry Hernandez and R. T. Arnold, the latter transferred to Tampa for a few months. At Tampa we have Mr. W. E. Padgett, manager, who is to be congratulated upon the arrival of an heirress several days since; Mr. Clarence Clarke

and Mr. Marion A. Partridge, all good men and pleasant to work with.

A gloom was cast over our office on the 8th of July by the announcement of the death of Walter J. Wallace, at Williamson, S. C., already noted in the previous issue. Mr. Wallace came to Jacksonville in May, 1885, and never left the office until last year, when his health broke down. He lost his wife and baby here during the yellow fever epidemic, but



THE LATE WALTER J. WALLACE,  
For many years an operator in the Jacksonville, Fla.,  
Western Union office.

never deserted his post of duty, as eight out of fourteen operators did during the scourge. Mr. Wallace began his career as an operator in Charleston, S. C., in 1879. He went to Augusta in 1880 and to Montgomery, Ala., in 1881 and came here in 1885. He was the last but one of the force in this office in 1885 who have remained steadily in Jacksonville. He was an intense sufferer from rheumatism, but never complained.

## BIRMINGHAM, ALA., WESTERN UNION.

The personnel of this office is as follows: Edward E. Williams, manager; A. M. Livingston, chief operator; J. M. Green, night chief operator; J. A. Price, E. E. Chapple, R. E. Windham, A. W. Thomson, G. E. Brown, F. D. Squires, J. S. Laird, O. W. Wilkerson, operators. Branch offices—Mrs. E. B. Smith, Morris avenue; Miss Hughey, the Hillman Hotel.

Arrivals.—Robert Marvin, formerly from Montgomery, Ala.; M. L. Herndon, our new cashier, formerly of Houston, Tex.

Our office is soon to be remodelled and equipped with a storage battery, etc., in order to meet the requirements of the fast increasing business. Mr. Livingston, day chief, is the hardest working man on the force. Mr. Green, our night chief, is off on his summer vacation, spending a month in Colorado Springs and various other points in Colorado and the west. Mr. J. A. Price is holding down night



chief trick during the absence of Mr. Green. E. E. Chapple and R. E. Windham are working the heavy Atlanta circuit.

#### CHICAGO, ILL., POSTAL.

Many of the operators are off on their vacations just at present. F. N. Roberts, our well liked wire chief; Louie Graef, A. L. Lassman and Irwin Diefenderfer have already returned to work after rusticiating in the country.

Among the recent arrivals are J. J. Ahern, L. W. Beeler, Mr. Delmar, Mrs. Maude Molden, F. G. Kitzmiller, and all the men recently discharged by the Western Union for belonging to the Telegraphers' Union.

The Order of Railroad Telegraphers has instituted two local divisions in Chicago, one on the West Side, and the other on the South Side, comprised of telegraphers employed by the local roads.

Miss Brown, at the Barnes House branch office, and Miss Ivans, of Haymarket branch, have returned after a six weeks' sojourn in Indiana.

E. A. Leekley, lately of the Northwestern Railway, Escanaba, Mich., has accepted a position with the company, at the Rookery Building office.

#### DENVER, COLO., WESTERN UNION.

S. R. Beatty, who was appointed assistant chief operator of the Denver office, on July 1, last, was born in Ireland and began his telegraph career at the age of eleven years with the British Postal Company. He entered the service of the Western Union Telegraph Company in 1886, and has since been with them continuously. While in New York he had charge of the Wheatstone department, nights, under Chief O. R. Roberson. During the famous blizzard of March, 1888, for three days Mr. Beatty exceeded all previous records as a Wheatstone puncher. Mr. W. J. Dealy, then manager of the office, highly complimented him on his record. He became night wire chief in this office in 1894.

Mr. A. C. Parsons, who succeeds W. N. Fashbaugh as wire chief, days, was born at Crystal Lake, Minn., September 22, 1878. He became a messenger for the American District Telegraph Company July 10, 1896, at Denver; promoted to night check May 30, 1897, and to operator April 3, 1898.

Mr. E. E. Lash, who succeeds Mr. Beatty as night wire chief, began his telegraph career with the Chicago, Burlington & Quincy Railroad in Iowa. He went to Little Rock, Ark., in 1881, where he served as night chief for the Western Union Telegraph Company for several years. In 1886 he was Superintendent of Telegraph of the Arkansas Telegraph Company, a connection of the Baltimore & Ohio; he served a year as night chief for the Missouri Pacific Railroad Company at that point. In 1890 he was appointed manager of the Western Union Telegraph Company at Hot Springs, Ark., afterwards returning to Little Rock, in the same employ. He received the appointment as night wire chief of the Dallas, Tex., Western Union Telegraph Company in 1901, where he remained until March, 1902, coming to Denver on account of the health of his son. Mr. Lash is quite a stranger among

some of the employes, but he comes to this office highly recommended and has certainly proved himself a thorough gentleman and takes hold like an old timer.

Mr. Henry Mandell, of the night force, spent a month visiting friends in New York State. He reports an excellent time and is much improved in health.

F. J. Martin, of the Morgan Brokerage Company, spent his vacation in the mountains.

Harry Thomas, assistant night wire chief, has just returned from a two weeks' hunt among the hills of Route County.

Mr. H. A. Dodge, who has been acting as temporary traffic chief during the past two months, has resigned to accept the superintendency of telegraph of the Santa Fé Central, a new corporation operating through New Mexico with headquarters at Santa Fé, N. M.

Mr. Glover and Mr. Stump have exchanged tricks, the latter taking the late night shift.

Arrivals: Mr. Clowes from Oklahoma City, Associated Press, assigned to first Chicago wire; Mr. Stangle from the Western Union, Cincinnati; Miss Morton from Texas; Miss Lentz, from Western Union, Kansas City, Mo.; E. J. McLaughlin, Providence Associated Press; W. L. DeLoif, from the Postal, Dallas, Tex.; R. T. Brown, from the Western Union, El Paso, Tex., and C. A. Carpenter, from the Western Union, Lincoln, Neb.

#### ST. LOUIS, MO., WESTERN UNION.

Mr. J. A. Weaver, chief bookkeeper, was wounded on July 4 by being shot in his right thigh and has been confined to his home for several days in consequence.

#### BANGOR, ME., WESTERN UNION.

Mr. John H. Fahey, an operator, has been promoted to the position of manager, vice Frank J. Temple, deceased. Mr. Fahey has been acting manager for some time past and his appointment gives general satisfaction.

Charles W. Lemont, who was for a number of years manager of several Western Union Telegraph offices in this district, was in this city recently in the interest of the New England Telephone and Telegraph Company. When Mr. Lemont left the telegraph business about a year ago he was in very poor health, but he is now looking brown and hearty from his daily outdoor employment.

#### HOUSTON, TEX., POSTAL.

The many readers of TELEGRAPH AGE will doubtless be pleased to read a few items of interest to the fraternity from the banner office of the Texas Postal, of which the company can justly feel proud. The Houston office, in point of management, equipment, volume of business handled, etc., stands second to none compared with the large number of important offices controlled by the Texas company. The business at this point has so rapidly increased since the company's beginning in this section, under the able management of our worthy manager, Mr. John C. Witt, that it has been necessary to increase the force in all departments from time to time, until our operating force alone now numbers ten strictly first-

class telegraphers. This is an excellent showing, considering the fact that this is the dull season in this section of the state, and it is confidently predicted that when the busy season rolls around about September 1st, that there will be a two-thirds increase in both the clerical and operative departments of the Houston office.

Our equipment consists of ten up-to-date Crocker-Wheeler dynamos, five quad sets, two duplex sets, together with single and half set repeaters too numerous to mention. Each operator is provided with a new up-to-date typewriter, the Smith Premier being considered the favorite.

Mr. Pat H. Perry, after a sojourn here of eight months, has left us to accept a more lucrative position with the Postal at Buffalo, N. Y.

Mr. Andrew D. Holcomb, formerly of the Western Union here, has accepted service with us.

Mr. John H. Bailey, of the packing house branch, is away on his vacation, and is being relieved by Mr. H. H. Updike.

Mr. Norville Turner, of our clerical department, late of Mobile, Ala., has accepted a position as operator with the Western Union here.

Col. M. B. Beale, late of the auditor's office of the Southern Pacific Railway here, is one of the stars on our operating force.

Great credit is due Chief McLelland and Night Chief Lowe for their excellent management of our circuits during the recent storm.

The personnel of the clerical department is as follows: A. L. McCulla, cashier and bookkeeper; W. A. Craig, delivery clerk; Miss Maud Battaile, receiving clerk; Oscar Wynn, night delivery clerk; Abner L. Burrow, error clerk; Wilbur Thompson, day check clerk; Urban W. Martin, night check clerk, and twelve uniformed messengers on bicycles.

### BOSTON, MASS.

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

### WESTERN UNION.

Apropos of the recent changes here Night Manager Charles G. Pond and Night Chief R. W. Nason were dropped some time ago. Appointments: Thomas R. Finan, formerly assistant wire chief, days, is now night manager, and Harry W. Flynn, formerly night operator is now night chief. Richard Brewer, who was night chief some years ago, but who has been working a wire since his return from Kansas City about a year ago, succeeds Mr. Finan as assistant wire chief, days.

The feeling of uncertainty among the operators has been the labor agitators opportunity and the first meeting of the new organization was attended by sixty Western Union and twenty Postal men.

There is a rumor that something is to be provided for Mr. C. W. Henderson, our late manager, in the near future.

R. L. Stevens, night traffic chief, has been transferred to the position of night chief, city line department, vice Abram Nelson, assigned to a wire. Mr. Gornley, who worked the New York printer, was also dropped. and is laid up in some institution helpless from rheumatism. In view of Gornley's fate, it has been remarked by more than one that William Blanchard, the old-time printing operator, was in luck to die before he had to worry over the "ways and means." There is a feeling that other changes may occur.

### POSTAL.

The main office and principal branches in this city have been appropriately draped in memory of the late president, John W. Mackay.

A. E. Lemont, for some years past manager at 38 Broad street, has resigned, to accept a position with the American Telephone Company in this city. He is succeeded by J. A. Coughlan, formerly assistant night chief of the main office.

Several of the branch offices have been recently remodelled and refitted. Those of Chauncy and Broad streets show a marked improvement in neatness and convenience.

W. B. Tait has been appointed assistant night chief.

A. E. Duclos, assistant cashier, is spending a short vacation with his family at Booth Bay Harbor, Me.

C. J. Sheehan, who has been ill at the Massachusetts General Hospital for the past two or three weeks, is reported progressing favorably.

E. M. Noonan has returned from a two week's outing looking as brown as a berry.

L. J. Gordon has been temporarily transferred to Providence, R. I.

G. A. Johnson is in Newport, R. I., for the summer.

Arrivals: E. W. Grimes, J. W. Walsh, T. S. Ahern, R. King, C. J. Prendergast and P. J. Farrell.

### PHILADELPHIA, PA.

My Motto: Honorable Dealing. D. A. Mahoney, special representative Philadelphia Typewriter Exchange, Western Union Telegraph Co., Philadelphia. Remington's and Smith's remodeled, \$35 to \$50; \$5 per month; positively guaranteed. All makes rented \$3 per month. Agent for Alexander Word Register. Special Terms O. R. T. and O. C. T.

### WESTERN UNION.

Miss Clara Gregg, who has been with us for a number of years, has resigned to accept a more desirable position with a cotton firm in this city.

A. P. Jones has resigned and is now located with this company at Altoona, Pa.

D. J. Deasey, a gentleman well known to operators and agents of the Baltimore Central Railroad, who has been in Central America for the past year for the Panama Railroad Co. at Colon and other points, paid us a visit recently while on a two months' leave of absence.

George A. Paulhamus, a well-known broker operator, is the proud father of a new daughter.

J. V. Berger, of this office, is being initiated into the mysteries of the switchboard by Northern Chief Murray.

George Brinkman, the third man sent to Gettysburg during the recent encampment there, remained for several days after breaking of the camp to gather fragments of business.

W. E. Durnin took a vacation of two weeks visiting friends in Washington, D. C.

Samuel Eisenberg, of this office, was in charge of the temporary broker office established at the Horse Show at Atlantic City.

Arrivals: Messrs. Murphy, Makin and Hamilton.

#### POSTAL.

The silver wedding anniversary of Mr. John Gorsuch, foreman of the Construction Department, was a most enjoyable affair. Numerous handsome and costly gifts were received, for which the recipients desire to express their appreciation and gratitude.

Messrs. O. De Silva and Charles T. Koch are among the late arrivals.

After serving as manager of the Fifth and Market streets branch office, Mr. C. C. Figgs tendered his resignation and left for New York City, carrying with him most desirable commendations. He is succeeded by Mr. D. Gerbracht.

Much distress of mind is being experienced by Mr. Robert C. Mcredey, of the Commercial Exchange office, due to the critical condition of his wife, who has been placed under the care of skilled specialists.

Mr. Elmer Conover, the popular night manager at Harrisburg, Pa., was a recent visitor.

In due respect to our honored and highly-esteemed president, Mr. John W. Mackay, who died recently in London, the entire front of our main office is appropriately draped in black.

A perfect gem of an office has been established in the new Arcade Building, adjoining the Pennsylvania Railroad depot. The office enclosure is of plate glass and bronze, the interior fixtures and equipment being of the most modern pattern and device. A handsome mahogany counter is at the public's service, and a switchboard most attractively fitted up and installed by Mr. Wm. Fitzgerald, calls forth the admiration of ever beholder. The Morse desks, supplied with the Skirrow resonators, and typewriter lockers, afford every convenience to the operators. The office will be under the supervision of the American District Telegraph, in connection with the Postal.

Mr. Branch Wainwright, formerly with this company at Scaford, Del., now holds a responsible position with the Swift Refrigerating Company, which necessitates considerable traveling on his part in the performance of his duties.

With new headquarters established at West Chester, Pa., Mr. Harry Windolph, a former employe of this company, is doing a prosperous brokerage business.

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.

#### NEW YORK CITY.

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

#### WESTERN UNION.

Mr. E. P. Griffith, general wire chief, has been promoted to special duty in the office of General Superintendent B. Brooks, with headquarters at New York.

Mr. W. A. Van Orden, for many years identified with the superintendent's office, has been appointed general wire chief to succeed Mr. E. P. Griffith, promoted.

Mr. Robert Morton, has been transferred from the operating to the quadruplex department, where he has been assigned to regular duty, vice William Finn, promoted.

W. B. Purcell, who has been on the loop switch for some years, has been promoted to traffic chief, and William Winters takes the position thus made vacant.

Harry S. Pearce, traffic chief, has been assigned to take charge of the temporary office established at Oyster Bay, L. I., for the benefit principally of newspaper correspondents during the sojourn there of President Roosevelt.

William L. Apgar is taking the place of John Van Horn during the latter's vacation.

Mr. M. H. Kerner has returned from Kansas City, Mo., where he was recently summoned as an expert witness in a law suit, and is again at his desk in the race bureau.

The earnings of the Serial Building Association for the past six months were at the rate of a trifle over six per cent. per annum. This excellent showing is greatly to the credit of the board of management.

Miss Mary J. Say has taken the position with the Western Union at New Britain, Conn., made vacant by the resignation of Miss J. E. Miller, who retires from the business to her home at Highland Falls, N. Y.

On the morning of July 7, while R. L. Atkinson was at his desk in the eastern division, he was suddenly overcome with an attack of blindness. Up to date he has not resumed duty.

J. McGillivray has gone to Sea Girt, N. J., for two weeks to take charge of the state camp office.

Lieuts. Botha and Henning, of the Boer army,

who have been prisoners of war on the Bermuda Islands, and who were on their way home took great interest in visiting the office on July 21.

H. W. Gilbert, who has been for some years on the Jigger switch, has resigned to spend his remaining years upon his farm in New York State.

J. H. McCormick, who had been gradually failing with consumption for more than a year, died on July 20.

G. H. Halstead has resigned to enter other business at Middletown, N. Y.

R. Ferguson, recording secretary of the Aid Society, has been promoted to the loop switch, vice W. B. Purcell, and Charles Hanson has been assigned to the "Jiggers," vice Gilbert.

W. E. Rath, traffic chief of the Eastern Division, has been promoted to be wire chief Southern switch, vice E. F. Welch, assigned to Superintendent Mulford's office, vice W. A. Van Orden, promoted.

#### POSTAL.

The announcement of the sudden death of President John W. Mackay caused a shock in the operating department that will not soon be forgotten. When in the city, Mr. Mackay was a frequent visitor to the operating room and his familiar and genial countenance will long be remembered by the force, who were always great admirers of the manly man and thoroughly representative American. The office front has been appropriately draped in mourning out of respect to Mr. Mackay.

The vacation season is in full blast and will not end before October 1. Eastern Traffic Chief J. J. Fredericks and All Night Chief Chas. McCarthy are away for a two weeks' sojourn in the mountains. Charles Morrell, night city chief, is spending his vacation West. The following operators are also absent on vacation: J. F. Stevens, M. J. O'Donnell, Joseph Kohler, Robert Mitchell, J. M. Quill, Thos. F. Kehoe and Misses A. Holmes, Goldsmith, Hutchinson, Svenson and Huegel; Messrs. T. J. Green and W. F. Collins. Mr. Daniel McKee has resigned.

Arrivals: Messrs. J. D. Coleman, W. B. Gaffney, D. Howatt, W. McCabe, C. H. Cassidy, P. Wiemert, D. J. Maxwell, C. C. Figgs, P. M. Wiener, L. F. Kane, O. Hirsch, W. B. Gaffney, P. J. Heffeman, J. J. Hope, C. B. O'Rourke, R. F. Flanagan, T. F. Masterson, L. Corper, H. Lieber and R. H. Jackson; Misses K. A. Cook, L. F. Kane, K. Lynch and G. H. Smith. Departures: J. R. Shannon, P. W. De Baun.

Messrs. Gleason, Delemater and Davies and Mrs. McCormack and Mrs. Snow are absent on account of illness.

A man representing himself as E. McGowan, who says he is a Buffalo operator, but who claims to be employed at 253 Broadway, is visiting branch office managers and borrowing small sums of money from them on some pretence or other until pay day. There is no such person as E. McGowan on the 253 staff, and the person making such representation is undoubtedly an impostor.

Sample copies of TELEGRAPH AGE will be sent free to all intending subscribers.

#### William Finn in a New Position.

Mr. William Finn, electrical expert, for the past ten years connected with the quadruplex and repeater departments of the Western Union Telegraph Company, 195 Broadway, New York, has been transferred to the electrical engineer's office. The selection of Mr. Finn is an admirable one from every point of view, and the electrical department of the company is to be congratulated on securing the services of so valuable an acquisition.

Mr. Finn was born in Lancaster, Eng., March 24, 1852, and was in the telegraph service in his native city when the Government took possession of the telegraph in 1870. Always a student of electrical science, he made such progress in his chosen profession that he became one of the principals in the Government Institute in Newcastle-on-Tyne, subsequently conducting there the class in telegraph engineering.

In the meantime, Mr. Finn had been promoted to



WILLIAM FINN

Of the Electrical Engineer's office, Western Union Telegraph Company, New York.

the position of chief test clerk. It was at this time that he accepted an offer of the Western Union Telegraph Company, made through Sir W. H. Preece in 1882, to come to the United States and aid in introducing and operating the Wheatstone automatic system in this country.

On account of his repeater knowledge and experience, he was sent to Buffalo, N. Y., in 1883, where he remained about eight years, during which time he was more or less active in scientific and musical circles. He was largely instrumental in establishing the Buffalo Electrical Society, of which he was successively made treasurer, consulting electrician, president and honorary member. In 1891, he was transferred to New York, and given the position of quadruplex repeater and Wheatstone expert at the company's office, 195 Broadway. Mr. Finn is one of the authors

of Terry and Finn's popular work on telegraphic apparatus, a volume which has had an extensive circulation among the telegraph fraternity. He has been a prolific writer on telegraphic subjects. For a period of over five years he was also associated with TELEGRAPH AGE in the capacity of editor of the electrical department.

### Wireless Telegraphy.

Signor Marconi has recently received messages at Cape Skagen, Denmark, from Poldhu, Cornwall, Eng. The distance traversed by the messages is 850 miles.

The Marconi Wireless Telegraph Company of America has filed its first suit to establish its priority in wireless telegraphy in the United States. Instead of a combination of corporations owning alleged patents in this country, the Marconi Company proposes to maintain its position as the sole owner of all devices for transmitting messages through space.

It is reported in European dispatches that Marconi is not the real inventor of wireless telegraphy, but that the honor belongs to Marquis Luigi Solari, an officer of the Italian navy. While the announcement appears in an official publication of the British patent office, its exact significance in the absence of fuller information, cannot be determined at this time. Patents usually, if not always, cover some one instrument or process or method, and not a combination or system. In this case the information may mean much or it may mean little. The latter is the safest conclusion to draw from the facts until something to the contrary is definitely known.

### Built the Wires Across Wisconsin.

The competitor of the Government weather bureau, the Rev. Ira R. Hicks, in Kansas, is a picturesque old gentleman, who is familiarly known as "Cider" Smith. Besides being a weather prophet he is one of the pioneers in the telegraph business of the country and the first man who stretched wires across the State of Wisconsin. He was a pioneer in the north and was associated with such men as Ezra Cornell and Zack Chandler. He has led an interesting life.

This weather prognosticator's real name and title is Captain Isaiah Munson Smith. He is 83 years old and has been witness to many events in history. He has had his reverses—one was being burned out by the Chicago fire.

"Cider" Smith has studied the elements and observed the weather from a scientific standpoint for fifty years. He makes his forecasts by observing everything from falling barometers to curled corn husks. His system of deciding on what the weather is to be combines a mixture of scientific and proverbial reasonings. His forecasts for Kansas are printed daily in the papers of the State with the warnings of the Government weather bureau. And it may be said that "Cider" Smith's forecasts are quite as accurate as those of the Government. Where Smith beats the weather bureau is by mak-

ing forecasts from twenty-four hours to ten days in advance, while the bureau's limit is from twenty-four to thirty-six hours.

There is always a certain amount of salt to be taken with the forecasts of the natural-born prognosticator. Many people take Smith's that way, but repeatedly he has announced rain, snow and storms many days in advance of the weather bureau and he has foretold them correctly. Every day he visits the local newspaper offices in Topeka, where he lives, and gathers together the statement of the conditions as observed by the weather bureau offices in various parts of the country. He takes them home, studies them and the next day announces his forecast. He seldom imparts any of his lore except to say that "sun dogs" indicate rain or that three white frosts will bring rain. One large commission firm follows his forecasts as closely as those of the Government.

It was while he was traveling across Wisconsin caring for his telegraph lines that "Cider" Smith began studying the weather. In 1840 Smith went from his home at Oneida, N. Y., to Wisconsin. He went from Buffalo to Detroit by the Great Western and while on the voyage was seasick. He was cared for by Zack Chandler, who owned a store in Detroit. In 1849 Smith and Ezra Cornell secured the franchise for telegraph lines in Wisconsin and began building a line across the State. The system included Green Bay, Kenosha, Ashland and other towns. While caring for the line Smith passed the now famous Waukesha springs hundreds of times without knowing their value.

Finally Smith sold out to Cornell a few years before the Civil War. Cornell made his millions in the telegraph business. Smith sold his lands in Wisconsin and moved to Chicago and bought two lots on Dearborn street, started a store and was burned out in the great fire.

William B. Strong, formerly president of the Santa Fé Railroad, began his career as a telegrapher under Smith. Smith owns a little orchard near Topeka and makes cider from the apples. That is how he happened to be nicknamed "Cider." He is a pleasant old gentleman and he takes great pride in the correctness of his forecasts.

### A Sympathetic Tale—The Widow and the Telephone.

BY H. W. P.

The day had been bitter cold and the wind blew a hurricane from off the lake. The street cars ran with periodical indifference to the public and the weather. Christmas shoppers were hurrying to and fro, but mostly waiting for a car with an opening in the roof. Widow Catchem had waited long and anxiously past the dinner hour for her eighteen-year-old son Willie, who measured tape at Hodge and Podge's Main street store. Anxiety expressed itself in every line of the good lady's face, for such neglect was unusual.

"It must be," she said, "that business had de-

tained him." Turning to the telephone she called for 41144 Seneca, Hodge and Podge.

"Can you tell me where my boy Willie is?"

There was an intervening silence, when out of the depths came the response, "Call the Morgue." The Morgue? What could suggest the name! Was it possible that Willie had met some awful fate? Heaven forbid. "Is this steen 67 Seneca, the Morgue? Is there a boy there named Willie Catchem?" "No boy here; better call police headquarters." The elasticity of the telephone appealed to widow Catchem. The anxiety grew and without a moment's delay headquarters responded to the query. There had been no diminution of the storm, the window's sash rattled, the fire fluttered and glistened in the grate and the loneliness and dreariness of the surroundings only added to the widow's discomfort and trouble. Only an inanimate stretch of wire—that was all—intervened between the person of the good old widow and the awful uncertainty awaiting her. With fear and troubling, her heart fluttering from the excitement of the moment, she snatched the pulsating receiver from its accustomed receptacle and without hesitation glued it to her auriferous appendage and awaited the anxious response. As she listened, with her eyes fixed on space, over and along the surface of this mysterious conductor came the long sought for information and there was heard the sonorous tones of the chief's vocal chord. No wraps, umbrellas, goloshes or expensive livery equipment were employed in this race for the solution of a mystery. It was a simple detective proposition made possible to a good old widow by modern invention. Willie was not dead—only dead drunk.

### Preserve Your Papers.

By taking a little trouble, when TELEGRAPH AGE first comes to hand, it may be preserved to form a permanent and valuable addition to the reading matter with which all individuals should be supplied. We furnish a neat and attractive cloth board binder, which will be sent by mail, prepaid, for \$1.00. It has good, strong covers, on which the name TELEGRAPH AGE is stamped in gold, and means by which each issue may be securely held as in a bound book. One binder may thus be made serviceable for several years, and when the successive volumes, as they are completed, are bound in permanent form, the subscriber ultimately finds himself, for a moderate cost, in possession of a most valuable addition to any library, embracing a wide variety of telegraph, electrical and general information, and timely and original illustrations. Save your papers.

### IMPORTANT TO YOU

J. S. TOWNSEND--The Telegraphers' Jeweler, 1554 Wabash Ave., Chicago, offers any article in his elegant stock at net wholesale prices. A rare opportunity. Any watches or jewelry advertised can be bought at a lower price from this well known firm.

J. S. TOWNSEND, 1554 Wabash Ave., Chicago.

Our 400-page catalogue sent on application.

Agents wanted. Established 1877.

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

Time and labor saved by using Reservoir Pens—non-blotting, latest patent. You can write 500 words with one dip in ink well. 25 cents a dozen. Write to-day, Russel Pen Co., 6608 Ellis Ave., Chicago, Ill.

### Gold and Stock Life Insurance Association.

At the special meeting of the Gold and Stock Life Insurance Association, New York, June 23rd, adjourned to July 21st, the amendments to the by-laws, including graded rates, as follows, for new members,


Between 18 and 30, 50 cents per month,  
Between 30 and 35, 60 cents per month,  
Between 35 and 40, 75 cents per month,  
Between 40 and 45, \$1 per month,

and as recommended at the last annual meeting, were adopted to take effect January 1st, 1903.

**THE TELEGRAPHERS' FRIEND.**

The 20th Century Telegraph Key  
POSITIVELY CURES  
and prevents Loss of Grip.  
Makes fast sending Easy.  
Send for Booklet and Net Prices

E. S. RUSSELL, General Agent  
253 BROADWAY, NEW YORK.



Send for Net Prices

### TAKE TIME BY THE FORELOCK.

Dont' wait until sickness overtakes you before trying to get you life insured.

### Telegraphers' Mutual Benefit Association.

Insurance \$500, \$1,000 or \$1,500.

Assessment rates graded according to age and adjusted to income no matter how small.

Further particulars from agents or

M. J. O'LEARY, ec'y, P O. Box 510, New York

**Typewriters for Telegraphers.** The Philadelphia Typewriter Exchange, of Philadelphia, is the oldest, largest and best equipped house in Pennsylvania for supplying all makes of reliable typewriters. Machines rented or sold on easy payments. Special terms to members of the O. R. T. and O. C. T.

D. A. MAHONEY, Special Representative,

Operating Dept. Main Office Western Union Telegraph Company, PHILADELPHIA, PA.



**What the I. C. S. Did for Me**

Two months after I took up the I. C. S. training, I received an increase in salary. Aside from this, the satisfaction I am getting from my Course is worth a hundredfold what it cost me. I firmly believe that any one who can read will be benefited by I. C. S. training, as my early education was limited to common schools, and still I have mastered studies that I have never seen before.

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

**What the I. C. S. Will Do for You**

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

**DO IT TODAY**

**INTERNATIONAL CORRESPONDENCE SCHOOLS**  
Box 883, SCRANTON, PA.

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

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

Occupation \_\_\_\_\_

Name \_\_\_\_\_

No. \_\_\_\_\_ St.

Town \_\_\_\_\_ State \_\_\_\_\_

Headquarters Established 1869

**Rogers Manifold and Carbon Paper Co.,**  
MANUFACTURING STATIONERS,  
No. 75 MAIDEN LANE, NEW YORK.

MANUFACTURERS OF SUPERIOR  
**CARBON PAPER**  
-----FOR-----

Stylus, Pencil, Pen and Typewriter Use.

All kinds, colors and sizes on thin, medium and heavy paper for all purposes. Large Stock. Large discount. Orders filled promptly.

ALSO MANUFACTURERS OF

**TYPEWRITER RIBBONS**

FOR ALL MACHINES

Superior quality, woven edge, Gold Tips. Send for price lists. Also for Manifold Papers and Books, Stylus, Duplicating Books, Oil Boards, Train Order Books, etc.

Lockwood's Electricity, Magnetism and Electric Telegraphy. A practical guide for operators. 376 pages, 152 illustrations. Price, \$2.50, expressage prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

THE TELEGRAPH AGE deals in all kinds of electrical books. Send for price list.

**PRICES REDUCED FOR 60 DAYS.**

\$4.00 Vapor Bath Cabinet \$2.25 each  
\$5.00 Quaker " " 3.50 each  
\$10.00 " " 6.10 each  
\$1.00 Face & Head Steam. Atch. 65c  
Quality best. Guaranteed. \$2. Book  
Free with all "Quakers."  
Write for our New Catalogue, special 60-Day offer. Don't miss it. Your last chance. New plan, new prices to agents, salesmen, managers. Wonderful sellers. Hustlers getting rich. Plenty territory. World M'g Co., 97 World Bldg., Cincinnati, O.

**The Telegraph Chronicle**

Is the only telegraph newspaper published in England. All who wish to know what is going on in the British Postal Telegraph Service and to keep abreast of the progress of technical improvements in telegraphic apparatus and methods, should subscribe to the

**TELEGRAPH CHRONICLE**

Published fortnightly at 129 Poppy Road, London, S. E. Subscription, post-free, Five Shillings per Annum. The TELEGRAPH CHRONICLE is the organ of the Postal Telegraph Clerks Association, the most powerful organization of telegraphers in the world.

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. Taltavall, Telegraph Age, 253 Broadway, New York.

**NOW IS THE TIME . . .**  
TO SUBSCRIBE FOR  
. . . TELEGRAPH AGE

**TELEPHONES.**



FOR  
**SHORT LINES**  
**LONG LINES**  
**PRIVATE LINES**  
**EXCHANGE LINES**  
**ETC., ETC., ETC.**

ALL INSTRUMENTS ARE EQUIPPED with celebrated "Standard" Transmitters, which have no equal for talking and lasting qualities and are considered by experts and telephone users to be the best transmitters upon the market

Write for Prices. Goods shipped Promptly.

Address:

**STANDARD TELEPHONE AND ELECTRIC COMPANY**  
**MADISON, WIS.**

STANDARD No. 8 Long Distance Telephone

TRADE MARK STICKERS FROM "FIVE BROTHERS' PIPE SMOKING" TOBACCO ARE OF EQUAL VALUE WITH TAGS IN SECURING PRESENTS.

# FREE FOR TOBACCO TAGS

NOV. 30<sup>TH</sup> 1902.

NOV. 30<sup>TH</sup> 1902.



2,500 TAGS.



150 TAGS.



20 TAGS.



140 TAGS.



60 TAGS.



60 TAGS.



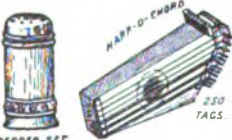
25 TAGS.



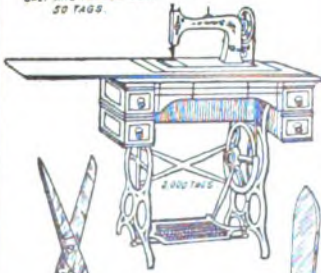
240 TAGS.



50 TAGS.



250 TAGS.



2,000 TAGS.



25 TAGS.



25 TAGS.



MARLIN REPEATING SHOT GUN. 2,000 TAGS.



25 TAGS.



100 TAGS.



REMINGTON DOUBLE-BARREL HAMMERLESS SHOT GUN. 3,000 TAGS.



MARLIN MAGAZINE RIFLE. 20/30 CALIBER. 2,000 TAGS.



250 TAGS.



MARLIN MAGAZINE RIFLE, 16 SHOT, 22 CALIBER. 1,800 TAGS.

FROM  
**"STAR"**  
**"HORSE SHOE"**  
**"SPEARHEAD"**  
**"STANDARD NAVY"**  
**"J.T."**  
**"PIPER HEIDSIECK"**  
**"BOOT JACK"**  
**"DRUMMOND" NATURAL LEAF**  
**"OLD PEACH & HONEY"**  
**"NOBBY SPUN ROLL"**  
**"JOLLY TAR"**  
**"E. RICE GREENVILLE"**  
**"GRANGER TWIST"**

2 Granger Twist Tags being equal to one of others mentioned.  
**"GOOD LUCK," "CROSS BOW," "OLD HONESTY,"**  
**"MASTER WORKMAN," "SICKLE,"**  
**"BRANDYWINE," "PLANET," "NEPTUNE,"**  
**"RAZOR," "TENNESSEE CROSS TIE,"**  
**"OLE VARGINY."**  
 Red Tin Tags from "Tinsley's 16 oz. Natural Leaf" and  
 W. N. TINSLEY'S picture tin tags are also good for Presents.  
 TAGS MAY BE ASSORTED IN SECURING PRESENTS.

OUR NEW ILLUSTRATED  
**CATALOGUE OF PRESENTS**  
**FOR 1902**

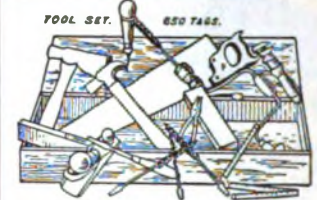
Includes many articles not shown here. It contains the most attractive List of Presents ever offered for Tags, and will be sent by mail on receipt of postage—2 cents.

Our offer of Presents for Tags will expire Nov. 30th, 1902.  
 CONTINENTAL TOBACCO CO.

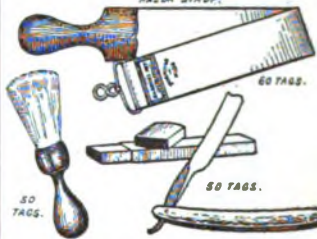
Write your name and address plainly on outside of package containing tags, and forward tags by registered mail or express prepaid. Be sure to have your package securely wrapped, so that tags will not be lost in transit.

Send tags and requests for Presents (also requests for Catalogues) to

C. Hy. BROWN,  
 424 1/2 Folsom Ave.,  
 ST. LOUIS, MO.



TOOL SET. 850 TAGS.



RAZOR SET. 60 TAGS.



FOUNTAIN PEN. 100 TAGS.



CHILD'S SET. 25 TAGS.



WATCH. 200 TAGS.



HARMONOPHONE. 60 TAGS.



SUGAR SHELL ROASTER. 60 TAGS.



MATCH BOX. 25 TAGS.



1,800 TAGS.

60 CART.

Paper Bands from "Florodora" Cigars are of Equal Value With Tags in Securing Presents.



# IF OPERATORS would avoid and cure that dreaded affliction



## Telegraphers' and Writers' Cramp

They should use



### Barclay's Paralysis Exerciser

It will strengthen the relaxed cords of the hand, wrist and arm; will arrest and cure all cases of paralysis and cramp of years' standing; also stiff joints caused by accident.

### No Telegrapher Should be without One.

This simple and durable device is the only one that is reliable and trustworthy, and has always done all that has been claimed for it. There are no complicated parts to get out of order, and with ordinary usage it will last a lifetime. The directions for use are easily followed:—Place the Exerciser on the hand as shown in cut. Press the bulb for 10 or 15 minutes at a time or until the hand becomes tired. In cases where the paralysis is of long standing the Exerciser can be kept on the hand. This keeps the fingers in position and prevents them from cramping while writing. In case of feeling the paralysis coming on, use the Exerciser for 10 or 15 minutes and it will relieve the bad feeling.

THE PRICE OF THESE EXERCISERS IS \$3.00.

Address: J. B. TALTAVALL, Telegraph Age, 253 Broadway, New York City, N. Y.

### BIND YOUR PAPERS.



This Binder is superior to all others, as it is intended to be a permanent or temporary covering for THE AGE. It is worth many times its cost for keeping and preserving all copies of the paper in convenient and compact form. This Binder differs from all others in not having a looseness at the back of the cover, as is the case with other binders.

Price, \$1.00, Postage Prepaid.

JOHN B. TALTAVALL,  
Telegraph Age,  
253 Broadway, New York

### Secret Sounders

FOR TELEGRAPH WORK  
PRICE, \$5.00

Invaluable in newspaper and broker offices. Easily adjusted, strong, durable and simple.

ADDRESS,

JOHN B. TALTAVALL,  
TELEGRAPH AGE, 253 B'way, N. Y.

### JUST OUT.

SMALL ACCUMULATORS. PRICE 50c.

HOW TO MAKE AND USE THEM.  
With Numerous Illustrations.

BY P. MARSHALL.

Mailed postpaid to any address on receipt of price.

J. B. TALTAVALL, Telegraph Age,  
253 Broadway, New York.

### Excelsior Webster Pocket Speller and Definer of the English Language



containing over 25,000 words. This work gives the correct orthography and definition of all the words in common use. The illustration gives a fair idea of the shape of the work being especially made to fit the pocket and bound in a style which makes it durable and elegant. This Speller and definer is not reprint, but has been carefully prepared by competent hands to meet the general want for a book of this kind, and for the space it occupies has no superior in the publishing world; containing 320 pages, double column. It weighs 2 1/4 ounces, size 5 x 2 1/4 inches, bound in elegant American Russia leather and indexed.

J. B. TALTAVALL,  
253 BROADWAY  
New York.

NOW IS THE TIME...  
TO SUBSCRIBE FOR

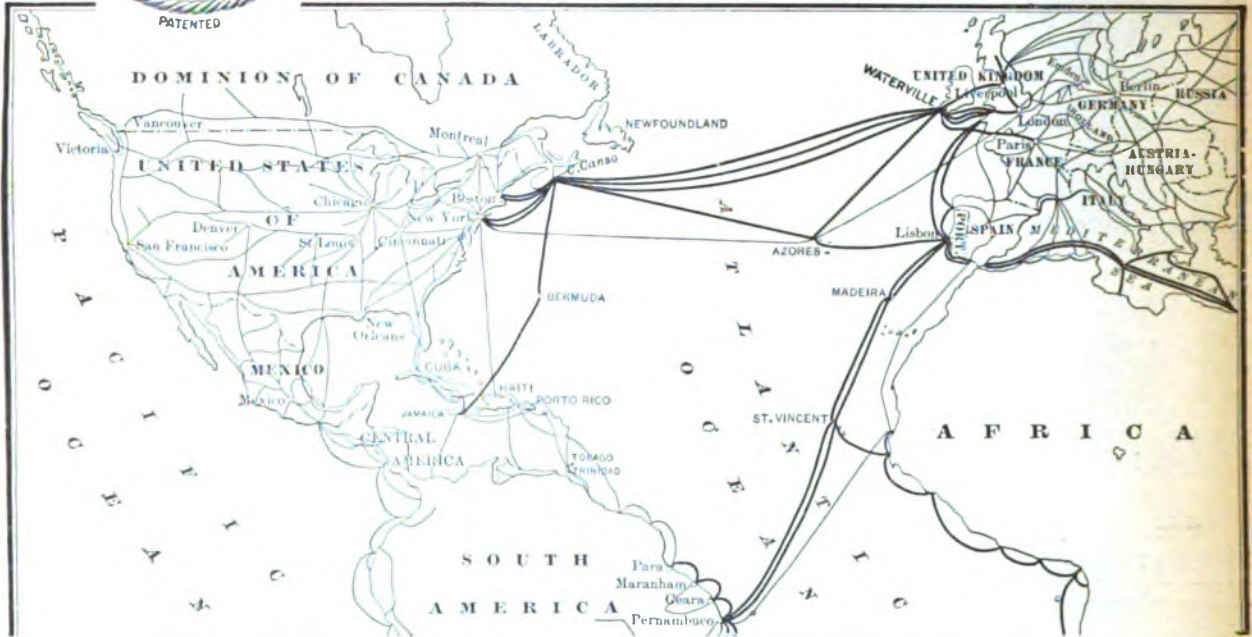
TELEGRAPH AGE.

# Commercial Cable Co.



CONNECTIONS :

POSTAL TELEGRAPH-CABLE COMPANY,  
 CANADIAN PACIFIC RAILWAY TELEGRAPHS,  
 HALIFAX & BERMUDAS CABLE COMPANY,  
 DIRECT WEST INDIA CABLE COMPANY,  
 DEUTSCH-ATLANTISCHE TELEGRAPHEN-GESELLSCHAFT  
 (GERMAN ATLANTIC CABLE COMPANY).



EXECUTIVE OFFICES,  
 POSTAL TELEGRAPH BUILDING, N. Y.

JOHN W. MACKAY, PRESIDENT.  
 GEO. C. WARD, VICE-PRES. & GEN'L MANAGER.

## THE REASONS WHY THE POSTAL TELEGRAPH-CABLE COMPANY



IS THE

### ONLY SUCCESSFUL COMPETITIVE TELEGRAPH SYSTEM EVER MAINTAINED :

Its proprietors and management determined from the first to establish a permanent business based on sound principles and business-like methods, and have steadfastly adhered to that policy.

Its employees are intelligent, diligent, energetic and enthusiastic. They are in sympathy with their employers and are working for the company's interests, recognizing that their interests are identical with the company's interests and that unless the Postal service is the BEST, public patronage cannot be retained.

Every man in the "Postal's" service is proud of the company's success.

These are the reasons why the "Postal" Company has been successful in the past and will be successful in the future.

*The progress of the Postal Telegraph System is evidenced by the continued extension of land lines, the numerous and important railroad connections recently made, the valuable connections with the German cables, the Pacific cable (now being constructed), the Direct West Indies cable, the Bermuda cable, etc.*

.....THE.....

# Western Union Telegraph Co.

Executive Offices, 195 BROADWAY, :: :: :: :: NEW YORK

ROBERT C. CLOWRY, President and General Manager.

## The Largest Telegraphic System in Existence

900,000 MILES OF WIRE. 22,500 OFFICES.

### TWO AMERICAN ATLANTIC CABLES

From New York City to Penzance, England, direct. Both cables are duplexed. Connects also with FOUR ANGLO-AMERICAN and one DIRECT UNITED STATES CABLES. Direct communication with GERMANY and FRANCE. DIRECT WIRES to GALVESTON, TEXAS, connecting at that place with the Cables of the MEXICAN, the CENTRAL and SOUTH AMERICAN TELEGRAPH COMPANIES for

ALL POINTS IN MEXICO AND CENTRAL AND SOUTH AMERICA

DIRECT WIRES and CABLES to HAVANA, CUBA, connecting at that place with the CUBA SUBMARINE and WEST INDIA AND PANAMA TELEGRAPH COMPANIES for

ALL POINTS IN THE WEST INDIES

Exclusive Connection with the Great North-Western Tel. Co. of Canada

#### OFFICES IN GREAT BRITAIN

252 Gresham House, Old Broad Street, :: London, E. C.

40 Mark Lane, London, E. C.  
21 Royal Exchange, London, E. C.  
109 Fenchurch Street, London, E. C.  
Effingham House, Arundel Street, Strand, London, W. C.  
2 Northumberland Avenue, London, W. C.  
A 5, Exchange Buildings, Liverpool.  
Backhall Chambers, Baldwin Street, Bristol.

29 Gordon Street, Glasgow.  
10 Forster Square, Bradford.  
1 Panmure Street, Dundee.  
106 George Street, Edinburgh.  
Exchange Buildings, Leith.  
7 Royal Exchange, Bank Street, Manchester.  
1 Side, Newcastle-on-Tyne.



**GOOD BUSINESS IF YOU USE OUR**  
**150 OHM MAIN LINE TELEGRAPH SETS**

It can be quickly adjusted to meet any line conditions in any kind of weather. If you want to use it outside for Line Testing, etc. order a leather carrying case with shoulder strap.

**FOOTE, PIERSON & Co.**  
 NEW YORK  
 Telegraph Instruments our Specialty

## Gold and Stock Life Insurance Association

TWENTY-FIFTH YEAR

For Telegraphers and Others in Electrical Service.

**INITIATION FEE, \$1.00; DUES, 50 Cents per Month; INSURANCE, \$500.00, in payments of \$50.00 per Month for Ten Consecutive Months.**

**WM. J. DEALY, Secretary, 195 BROADWAY, NEW YORK.**

## 70th THOUSAND

# A B C OF ELECTRICITY

PRINTED FROM A  
 NEW SET OF PLATES

By W. P. H.  
 MEADOWCROFT.

THE MOST SUCCESSFUL  
 ELEMENTARY WORK.

One volume, 12mo cloth, 50 cents. Fully illustrated.

This excellent primary book has taken the first place in elementary scientific works. It has received the endorsement of Thos. A. Edison. It is for every person desiring a knowledge of electricity, and is written in simple style, so that a child can understand the work. It is what its title implies, the first flight of steps in electricity.

**ENTHUSIASTICALLY INDORSED BY THE PRESS.**

Sent post paid on receipt of price by

**J. B. TALTAVALL, Telegraph Age**  
 253 BROADWAY, NEW YORK.

1898 EDITION  
 — OF —

# Experimental Science

By GEO. M. HOPKINS.

**20th Edition Revised and Enlarged.**

914 Pages, 820 Illustrations.

Price \$4.00 in cloth; \$5.00 in half morocco, postpaid

This is a book full of interest and value for Teachers, Students, and others who desire to impart or obtain a practical knowledge of Physics. This splendid work gives young and old something worthy of thought. It has influenced thousands of men in the choice of a career. It will give anyone, young or old, information that will enable him to comprehend the great improvements of the day. It furnishes suggestions for hours of instructive recreation.



Address, **J. B. TALTAVALL,**  
 253 Broadway, NEW YORK.

## THE WESTON STANDARD VOLTMETERS AND AMMETERS.



The Weston Standard Mill-Ammeters and Ammeters are infinitely superior to galvanometers for tests of current strength on lines and for tests of Relays, Sounders and other Telegraphic Apparatus. They are direct-reading, dead-beat, and are practically uninfluenced by the earth's field. No constants are required, and with careful use there is no necessity for recalibration. The Weston Standard Voltmeters are the very best practical instruments obtainable for determining the electro-motive force of single cells, or series of cells, or for ascertaining the voltage on lines. By the proper use of these instruments all tests of resistance, current, strength and electro-motive force required in telegraphic practice can be made with great ease and accuracy! Correspondence solicited.

**WESTON ELECTRICAL INSTRUMENT COMPANY,**  
 WAVERLY PARK, NEWARK, N. J.

BERLIN: European Weston Electrical Instrument Co., Ritterstrasse No. 88.  
 LONDON: Elliott Bros., No. 101 St. Martin's Lane.

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

Pope's Modern Practice of the Electric  
 Telegraph. A handbook for operators. 223 pages, fully illustrated. Price, \$1.50, postage prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

# TELEGRAPH AGE.

A SEMI-MONTHLY JOURNAL DEVOTED TO TELEGRAPHY.

Single Copies, 10 cts.

ESTABLISHED 1883.

\$1.50 per year.

Vol. XIX.—No. 16.

NEW YORK, AUGUST 16, 1902.

Whole No. 462.



## NEW STANDARD DRY CELLS. STANDARD OF THE U. S. NAVY AND THE WORLD.

The price is as low as any; durability, FOUR to ONE over any other make. When you use them once you will want no other. NECKTIE PIN outfit by mail \$1.00.

**WILLIAM ROCHE,** Inventor and Sole Manfr.,  
42 Vesey St., New York.

## Put Alexander's Word-Counter

on your machine to-day. You will be a better operator to-morrow. It will save you lots of work and worry, and silently demand a better salary for the improved service you will give.

JESSE ALEXANDER, 195 Broadway, New York

1889

PARIS EXPOSITION MEDAL FOR  
RUBBER INSULATION.



1893

WORLD'S FAIR MEDAL FOR  
RUBBER INSULATION

THE STANDARD FOR RUBBER INSULATION.

SOLE MANUFACTURERS OF Okonite Wires, Okonite Tape, Manson Tape, Candee Weatherproof Wires

THE OKONITE CO., LTD., 253 BROADWAY, NEW YORK.

WILLARD L. CANDEE, } Managers.  
H. DURANT CHEEVER, }

WRITE FOR PRICES.

GEO. T. MANSON, Gen'l Supt.  
W. H. HODGINS, Secy.

Good Work  
Durability  
Simplicity  
Speed

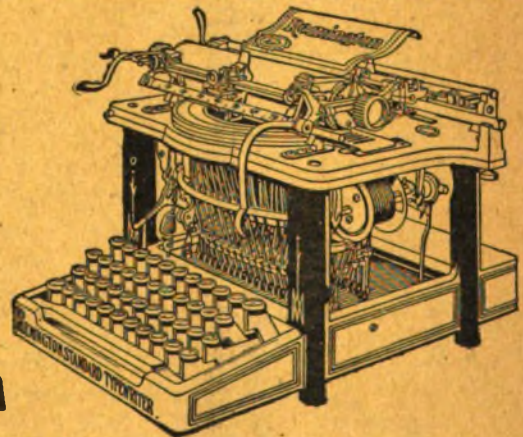
ARE THE

Four Pillars of Strength

which Support the

# Remington Typewriter

YOU WILL FIND THEM IN EVERY REMINGTON  
Wyckoff, Seamans & Benedict, 327 Broadway, New York.



IN CORRESPONDING WITH ADVERTISERS PLEASE MENTION THIS PUBLICATION.

# Phillips' Code.

THE STANDARD FOR YEARS.

NEW AND REVISED EDITION NOW READY.

THIS FAVORITE AND THOROUGHLY TESTED method of shorthand arranged for TELEGRAPHIC PURPOSES and for the rapid transmission of Press Reports, has been brought up-to-date by MR. A. P. VELIE, a gentleman for many years identified with The Associated Press, New York, thoroughly competent for his task, and is pronounced complete in every particular.

BETTER THAN EVER this famous work will meet all requirements and be of indispensable value to every operator.

WITH THE NECESSARY ADDITIONS it now contains, the volume presents a compendium of telegraphic abbreviations of the utmost practical worth.

AGENTS FIND THIS BOOK A QUICK SELLER.

PRICE, \$ 1.00. CARRIAGE PREPAID.

Address all orders to J. B. TALTAVALL,

TELEGRAPH AGE.

253 BROADWAY, NEW YORK

## EVERY GOOD OPERATOR

SHOULD HAVE A GOOD WORD COUNTER  
THEY SAVE TIME AND TROUBLE

## INVALUABLE BECAUSE THEY ARE RELIABLE

We Can Supply Either the Hudson or Alexander

They record the exact number of words written upon any writing machine. They are an ornament to any typewriter. Simple and durable. Cannot get out of order. Unlimited counting capacity. Can be instantly reset. Warranted accurate.

Mailed to any Address upon Receipt of \$3.00

In ordering state what machine you use, as attachments differ. Remit by express or post office money order to

JOHN B. TALTAVALL, Telegraph Age, 253 Broadway, N. Y.

Taltavall's Telegraphers of To-day. Descriptive, historical and biographical. 355 pages and 700 engravings of the prominent telegraph people. Price, \$5.00, expressage prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

Thom & Jones' Telegraphic Connections; 300 pages, illustrated by 20 plates, with circuits distinguished by three different colors. Price, \$1.50, postage prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

"The Standard Work on Telegraphy" - -

## AMERICAN

## TELEGRAPHY:

SYSTEMS,  
APPARATUS,  
OPERATION.

450 Diagrams, 575 Pages, 34 Chapters.

By WILLIAM MAVER, Jr.

Bound in Cloth, - - - - \$3.50  
Sent, express charges prepaid, to any part of the world upon receipt of price.

J. B. TALTAVALL,  
Telegraph Age,  
253 Broadway, New York.

Any electrical or telegraph book published for sale by  
TELEGRAPH AGE,  
253 Broadway, New York.

NOW IS THE TIME TO  
SUBSCRIBE FOR :: ::

TELEGRAPH AGE

TERMS: \$1.50 PER YEAR.

Address J. B. TALTAVALL, Publisher, 253 BROADWAY, NEW YORK.

TRADE MARK  
 "Chloride Accumulator"  
 REGISTERED SEPTEMBER 11, 1894.

SPECIAL TYPES OF THE

**"Chloride Accumulator" for Telegraph Service**  
**THE ELECTRIC STORAGE BATTERY CO.**

ALLEGHENY AVE. and 19th ST.,  
 PHILADELPHIA, PA.

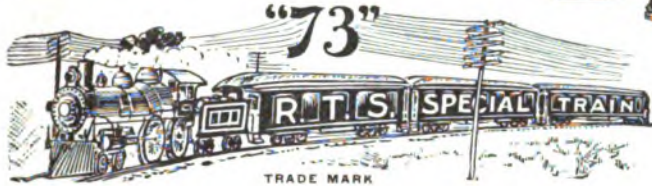
SALES OFFICES:  
 New York, 100 Broadway. Baltimore, Continental Trust Bldg. Cleveland, New England Bldg.  
 Boston, 60 State St. St. Louis, Wainwright Bldg. Philadelphia, Allegheny Ave., and 19th St.  
 Chicago, Marquette Bldg. San Francisco, Nevada Block. Detroit, Michigan Electric Co.  
 Havana, Cuba, G. F. Greenwood, Mgr., 34 Empedrado St.

Established 1879 **J. H. BUNNELL & CO.** (Incorporated)

Telegraph Instruments and Electrical  
 Supplies in General



MAIN OFFICE  
 REMOVED TO  
**No. 20 PARK PL.**  
 Formerly  
 106 and 108 Liberty St.  
 and 76 Cortlandt St.



SOLE MANUFACTURERS OF THE GENUINE

J. H. Bunnell & Co.'s Standard Instruments—Steel Lever Keys, Relays of the various well-known designs—such as Box Sounding, Polarized, Pony and Pocket forms. The latest improved types of Main Line Sounders, Giant local Sounders, Repeaters, Switches, Lightning Arresters, Bells, Batteries, Burglar Alarms, Annunciators, etc. A full line of Electric Light and Power Apparatus and Supplies.



**Operators Wanted** to act as agents for **Audible Alphabet**  
 the latest and best device for self instruction in learning telegraph operating. Send for circular.

Note well the exact name and address and make all Orders, Checks, Drafts, etc. payable to

**J. H. BUNNELL & CO.**  
 20 Park Place, New York.

THE AUDIBLE ALPHABET P. O. BOX 1286.

CATALOGUES FREE.

**MADE \$105 THE FIRST MONTH**

writes FRED. BLODGETT, of N. Y. J. L. BARRICK, of La., writes: "Am making \$3.00 to \$5.00 every day I work." Miss L. M. ANDERSON, of Iowa, writes: "I made \$3.00 to \$4.50 a day." Hundreds doing likewise. So can you. \$5.00 to \$10.00 daily made plating jewelry, tableware, bicycles, metal goods with gold, silver, nickel, etc. Enormous demand. We teach you FREE. Write—offer free. **FREE.**  
 G. GRAY & CO., Plating Works, A Miami Bldg., Cincinnati, O.

**W. R. OSTRANDER & CO.**

MANUFACTURERS  
 ....OF....

Speaking-Tube Goods  
 Electric Bells  
 Annunciators  
 General Electric Supplies

22 DEY STREET, NEW YORK

SEND FOR CATALOGUE

**Barclay's Paralysis Cure**

Strengthens the relaxed cords of the hand, wrist and arm. Cures Telegraphers' and other Writers' Paralysis and Cramps of many years' standing. Stiff Joints caused by accident cured. All Telegraphers and Writers should have one.



THIS IS ONE OF MANY TESTIMONIALS NOW ON HAND.

Ft. Atkinson, Wis., July 18, '95.

R. Barclay:  
 Dear Sir:—I commenced using your valuable Exerciser about two months ago, and have received such great benefit from its use that I consider it necessary to write you and say what it has done for me. If I had not used this instrument, I would have been obliged to give up the telegraph service, as I was in such a condition that nearly every one complained of my sending. I can heartily recommend your valuable remedy to all afflicted with paralysis, and if I know of any one in need of it I shall do all I can and persuade their trying it. Yours very truly,  
 OTTO REHM, Opr. C. & N. W. R'y.

Sent to any address, postage prepaid, together with full instructions, \$3.15. Address ROBERT BARCLAY, Green Bay, Wis.



**HUDSON'S WORD REGISTER**

A simple, accurate device for counting the words written upon the typewriter. It is easily read, instantly set, and covers both message and special work. Price by mail, with full directions for attaching and operating, \$3.00. State what machine you use. Circular free. Address

GEO. E. HUDSON,  
 Sheridanville, Pa

**THE PHILLIPS CODE.**

PRICE, \$1.00.

A thoroughly tested method of Shorthand, arranged for Telegraphic Purposes and contemplating the rapid transmission of press reports, also intended to be used as an easily acquired method for General Newspaper and Court Reporting.

Address,

J. B. TALTAVALL,

TELEGRAPH AGE, 253 BROADWAY  
 NEW YORK.

Any Electrical or Telegraph Book published for sale by TELEGRAPH AGE, 253 Broadway, New York.

# NOW READY FOR DELIVERY

## Pocket Edition of Diagrams

---



---

 AND
 

---



---

COMPLETE INFORMATION FOR TELEGRAPH ENGINEERS  
AND STUDENTS

By **WILLIS H. JONES**  
The Electrical Editor of Telegraph Age



BOUND IN FLEXIBLE LEATHER;  
260 PAGES

**A Telegraphic Classic; The Standard of the World**

**THIS VOLUME** is the finest, most complete and comprehensive book on the telegraph ever published. It is colloquial, simple and clear in style, copious in the amount and diversity of practical information furnished,

**IT IS SPLENDIDLY ILLUSTRATED**

and will be welcomed by every student, operator, official and engineer.

**NO SUCH THOROUGH TREATMENT** of the subject of the telegraph, clearly explaining the equipment of a modern telegraph office, has ever before been accomplished.

**IN ADDITION TO A VAST AMOUNT** of other material it contains the most valuable part of the matter appertaining to electricity, storage batteries, the duplex, the quadruplex, wheatstone system, the principal types of repeaters and other telegraph apparatus that Mr. Jones has written for **TELEGRAPH AGE** during the past three years.

**THIS WORK COVERS** the entire field of a practical telegraph course, and the subjects are treated with a conviction and simplicity, wholly free from entangling technicalities, such as to render the volume one of delight and absorbing interest.

**A STRONG AND VALUABLE FEATURE** of the book lies in the diagrams, clearly drawn and of large size, which show the apparatus of the systems of both the **WESTERN UNION TELEGRAPH COMPANY** and of the **POSTAL TELEGRAPH-CABLE COMPANY** brought up to date. Each apparatus described, in addition to the theoretical illustration, are accompanied by a diagram of an "actual binding post connection," taken from the blue print, something that all linemen especially will thoroughly appreciate.

**THE TELEPHONE AND SIMULTANEOUS TELEPHONY AND TELEGRAPHY** is explained in a particularly clear manner—just the thing for those possessing no knowledge whatever of the subjects.

## There is An Enormous Demand

FOR THIS GREAT AND TIMELY WORK, AND OUR AGENTS AND FRIENDS EVERYWHERE SHOULD  
LOSE NO TIME IN SENDING IN THEIR ORDERS.

**Price, \$1.50**

EXPRESS CHARGES PREPAID



ADDRESS  
**J. B. TALTAVALL,** TELEGRAPH AGE  
253 BROADWAY, NEW YORK



**BOOKS ON TELEGRAPHY AND ELECTRICITY.**

	PRICE-
<b>Abernethy's</b> Outline of Commercial and Railway Telegraphy in Theory and Practice. Arranged in questions and answers. 355 pages, 25 illustrations..	\$2.00
<b>Allsop's</b> Bell Construction.....	1.25
" Bell Fitting.....	1.25
" Induction Coils.....	1.25
" Practical Electric Light Fitting....	1.50
" Telephones.....	2.00
<b>Badt's</b> Bell-Hanger's Hand-book.....	1.00
" Dynamo-Tender's Hand-book.....	1.00
" Incandescent Wiring Hand-book.....	1.00
" Transmission Hand-book.....	1.00
<b>Bottone's</b> How to Make and Use a Dynamo.	.90
" How to Manage a Dynamo.....	.60
" Electric Bells.....	.50
" Electricity and Magnetism.....	.90
" Electrical Instrument Making....	.50
" Electro-Motors.....	.50
" Guide to Electric Lighting.....	.75
<b>Crocker's</b> Electric Lighting. Vol. I., The Generating Plant.....	3.00
<b>Crocker &amp; Wheeler's</b> Management of Dynamos and Motors.....	1.00
<b>Croft's</b> How to Make a Dynamo.....	.80
<b>Crosby &amp; Bell's</b> Electric Railway.....	2.50
<b>Culley's</b> Hand-book of Practical Telegraphy. 442 pages, 152 illustrations and numerous plates.....	5.50
<b>Du Moncel's</b> Electric Lighting.....	1.25
" Electric Motors.....	3.00
" Electro - Magnets American edition, 50 cents; English edition.....	.75
<b>Dunman's</b> Text-book of Electricity.....	.40
<b>Dyer's</b> Induction Coils. How Made and How Used.....	.50
<b>Davis's</b> Standard Tables for Wiremen.....	1.00
<b>Dolbear's</b> Telephone.....	.50
<b>Fahie's</b> History of Telegraphy.....	3.00
<b>Fairchild's</b> Street Railways.....	4.00
<b>Faraday's</b> Researches. 3 volumes.....	20.00
<b>Haskin's (C. H.)</b> Galvanometer.....	1.50
<b>Hering's</b> Magnet Winding.....	1.25
" Recent Progress in Electric Railways.....	1.00
" Table of Equivalents.....	.50
<b>Hobb's</b> Arithmetic of Electric Measurements.	.50
<b>Houston's</b> Electric Dictionary.....	5.00
" Advanced Primers of Electricity and Magnetism.....	1.00
" Advanced Primers of Electric Measurements.....	1.00
" Advanced Primers of Electric Transmission of Intelligence...	1.00
" Electricity One Hundred Years Ago and To-Day.....	1.00
<b>Houston &amp; Kennelly's</b> Alternating Electric Currents.....	1.00
" " Electric Arc Lighting.....	1.00
" " Electric Heating....	1.00
" " Electric Incandescent Lighting....	1.00
" " Electric Motor.....	1.00

	PRICE-
<b>Houston &amp; Kennelly's</b> Electric Street Railways.....	\$1.00
" " Electric Telegraphy.	1.00
" " Electric Telephony.	1.00
" " Electricity in Electro-Therapeutics.....	1.00
" " Electro - Dynamic Machinery.....	2.50
" " Electro-Magnetism..	1.00
<b>Jamieson's</b> Electricians' Pocket Companion.	.75
" Elementary Manual of Magnetism and Electricity.....	1.25
<b>Jenkin's</b> Electricity and Magnetism.....	1.25
<b>Kapp's</b> Alternate Currents of Electricity....	1.00
" Alternating Current Machinery.....	.50
" Dynamos, Alternators and Transformers.....	4.00
" Electric Transmission of Energy....	3.50
<b>Lightning Flashes and Electric Dashes.</b> Short, bright, ably written stories and sketches, telegraphic and electrical. 160 large, double-column pages. Profusely illustrated.....	1.50
<b>Lockwood's</b> Electricity, Magnetism and Electric Telegraphy. A Practical Guide and Hand-book of General Information for Electrical Students, Operators and Inspectors. 376 pages, 152 illustrations.	2.50
<b>Loring's</b> Hand-book of the Electro-Magnetic Telegraph.....	1.00
<b>Maver's</b> American Telegraphy. An Encyclopedia of the Telegraph Systems, Apparatus, Operation. Over 600 pages, 450 illustrations, greatly improved and enlarged, second edition just out.....	3.50
<b>Maver &amp; Davis's</b> Quadruplex. Contents: Development of the Quadruplex; Introduction and Explanatory; The Transmitter, Rheostat and the Condenser; Stearns's Duplex; Instruments of the Polar Duplex; The Polar Duplex; The Quadruplex; The Dynamo-Electric Machine in Relation to the Quadruplex; The Practical Working of the Quadruplex; Telegraph Repeater; The Wheatstone Automatic Telegraph. By William Maver, Jr....	1.50
<b>Meadowcroft's</b> A B C of Electricity.....	.50
<b>Munro &amp; Jamieson's</b> Pocketbook.....	2.50
<b>Munro's</b> Heroes of the Telegraph. The Origin of the Telegraph, Biographical Sketches, etc. By J. Munro. 288 pages, illustrated.....	1.40
<b>Niaudet's</b> Treatise on Electric Batteries....	2.50
<b>Noll's</b> How to Wire Buildings.....	1.50
<b>Ohm's</b> Galvanic Circuit.....	.50
<b>Parkhurst's</b> Dynamo and Motor Building for Amateurs.....	1.00
" Motor Construction.....	1.00
<b>Plum's</b> Military Telegraph During Our Civil War. 2 volumes.....	5.00
<b>Pope's</b> Modern Practice of the Electric Telegraph.....	1.50
<b>Preece &amp; Sivewright's</b> Telegraphy.....	2.00
<b>Preece &amp; Stubb's</b> Manual of Telephony....	4.50
<b>Prescott's</b> Bell's Telephone.....	4.00
" Dynamo Electricity.....	5.00

**70th THOUSAND** PRINTED FROM A  
NEW SET OF PLATES  
THE MOST SUCCESSFUL **A B C OF ELECTRICITY** By W. L. H.  
ELEMENTARY WORK. NEADOWCROFT.


One volume, 12mo cloth, 50 cents. Fully illustrated.

This excellent primary book has taken the first place in elementary scientific works. It has received the endorsement of Thos. A. Edison. It is for every person desiring a knowledge of electricity, and is written in simple style, so that a child can understand the work. It is what its title implies, the first flight of steps in electricity.

ENTHUSIASTICALLY INDORSED BY THE PRESS.

Sent post paid on receipt of price by

J. B. TALTAVALL, Telegraph Age  
253 BROADWAY, NEW YORK.

**N**OW IS THE TIME TO  **TELEGRAPH AGE**  
SUBSCRIBE FOR :: ::

TERMS: \$1.50 PER YEAR.

Address J. B. TALTAVALL, Publisher, 253 BROADWAY, NEW YORK.

**MARSHALL'S  
ELECTRICAL CONDENSERS**



MULTIPLE SERIES STANDARD CONDENSER.  
STANDARD CONDENSERS A SPECIALTY.

Condensers for Telegraph, Telephone, Electric Light and Experimental purposes.

These condensers are used in all telegraph offices in America where standard and ordinary condensers are required. Send for catalogue.

Address **WM. MARSHALL,**  
100 Lexington Ave., near 57th St., New York.

**\$1250 TO \$3600** Per Year & Expenses.  
**FOR HUSTLERS—BOTH MEN & WOMEN**



At home or traveling. Let us start you. Our Puritan Water Still—a wonderful invention. Great seller—big money maker. Enormous demand. Over 40,000 already sold. Everybody buys. It purifies the foulest water by distillation—removes every impurity. Furnishes absolutely pure, aerated, delicious drinking water. Beats Filters. Saves lives—prevents fevers, sickness, doctor bills—cures disease. Write for **NEW PLAN AND OFFER.**

**HARRISON MFG CO., 12 Harrison Bldg., Cincinnati, O.**

**Satin Finish**  
Typewriter Ribbons.  
Something new.

**Satin Finish**  
Carbon Paper.  
Known everywhere.

**Cobweb Carbon**  
Used once,  
Used always.

**A. P. LITTLE, Mfr.,**  
Rochester, N. Y.

Also,  
261 Broadway, New York.  
161 La Salle St., Chicago.  
665 The Bourse, Philadelphia.  
413 Wood St., Pittsburgh.  
28 Basinghall St., London.  
45 Adelaide St., E., Toronto.

**Preece & Sivewright's Telegraphy.**—  
A description of the English Telegraphs. 412 pages fully illustrated. Price, \$2.00, expressage prepaid. Address J. B. Taltavall, 253 Broadway, New York.

**BLOOD POISON**

Primary, Secondary or Tertiary permanently cured in 15 to 35 days. We eliminate all poison from the system, so that there can never be return of the disease in any form. Parties can be treated at home as well as here (for the same price and under the same guarantee), but with those who prefer to come here, we will contract to cure them or refund all money and pay entire expenses of coming, railroad fare and hotel bills.

**OUR MAGIC REMEDY** has been many years in use and never failed to cure. Since the history of medicine a true specific for Blood Poison has been sought for but never found, until our Magic Cyphlone was discovered. This disease has always baffled the skill of the most eminent physicians. We solicit the most obstinate cases and challenge the world for a case we cannot cure.

**\$500,000 CAPITAL**

behind our unconditional guarantee. ABSO LUTE PROOFS sent sealed on application. 100-PAGE BOOK FREE.

**HAVE YOU** Sore Throat, Pimples, Copper Colored Spots, Aches, Old Sores, Ulcers in mouth, Hair Falling, write

**COOK REMEDY CO.,**

1632 Masonic Temple, Chicago, Ill.

**COOK REMEDY CO.**

**Standard Underground Cable Co.,**



**Wires,  
Cables,  
Accessories.**

**RAILWAY, ELECTRIC LIGHT,  
TELEPHONE, TELEGRAPH.**  
For Aerial, Underground  
and Submarine Use.

**NEW YORK, PHILADELPHIA, CHICAGO,  
PITTSBURGH, BOSTON, SAN FRANCISCO**





THE LATE JOHN W. MACKAY.

# THE TELEGRAPH AGE

No. 16.

NEW YORK, AUGUST 16, 1902.

Vol. XIX.

## CONTENTS.

Some Points on Electricity.....	329
Business Notice.....	330
Personal Mention, Resignations and Appointments. General Mention. New York Visitors.....	331
Obituary Notes. The Cable. Organization.....	332
A Twentieth Century Suggestion.....	333
Approval for Working Too Fast. A New Method of Swindling. Directory of Telegraph Organizations.....	334
W. J. Slater. John D. Prosser.....	335
Patrick J. Tierney. Edward Francis Welsh.....	336
Editorial. Success in Life.....	337
T. S. F. T. A. O. T. C. O. T. O. A. E. O. T. W. U. T. C. Redivivus. Mental English Don't Count.....	338
First Train Dispatching by Telegraph.....	339
Shorty's Shade.....	341
Splinterinas. A Beehive Cable Box.....	342
Commercial Pacific Cable and the Government. Old Timers' Re- union at Salt Lake City.....	343
No Let Up in the Big Sale.....	344
Packet Diagrams and Bookkeeping Methods. New T. M. B. A. Agents. Kansas Ctr. Postal; Washington, Postal.....	345
Indianapolis, Western Union; Montreal, Great North Western; Boston, Western Union; Philadelphia, Western Union.....	346
Philadelphia, Postal; Seattle, Western Union; Lake Charles, Postal; Louisville, Postal.....	347
New York, Western Union; New York, Postal.....	348
Chicago, Western Union. The Municipal Electricians. New Sup- erintendent at Boston, Mass.....	349
Wireless Telegraphy. The Railroad.....	350

## SOME POINTS ON ELECTRICITY.

BY WILLIS H. JONES.

It seems to be characteristic of the human brain to associate great ideas with correspondingly large proportions in the material developments of devices growing out of them. This is shown in the size of early patterns of nearly all apparatus belonging to our great inventions. They were made ridiculously large and cumbersome, as a rule, and left to posterity with later knowledge and riper experience, to trim and reduce to a practical form.

Increased electrical knowledge gradually threw light into the dark corners with the result that today many who merely judge things from the surface, are inclined to believe that our most prominent inventions have reached the climax of their development. Now, the fact is that beneath the surface there is in every industry a very wide field for investigation which is practically neglected.

We refer to the growing habit of belittling the importance of those numerous, petty inconveniences and annoyances encountered in the working and handling of apparatus that employees see every day, yet are considered too insignificant singly to complain of. Officials, therefore, unless properly informed of these facts must not be

blamed for the result of indifference on the part of the sufferers to report the same.

The writer is fully convinced that a systematic investigation of this class of defects would do more to improve the general service of a great concern than the installation of many new inventions. We have already shown by a description of Mr. Barclay's new method of switchboard alignment, the direct repeating relay, and other improved apparatus, not forgetting those of the Postal Telegraph-Cable Company, that the present policy of the telegraph, at least, is henceforth to develop this neglected field to its fullest capacity. It is not singly that these improvements count, but collectively.

Within this scope comes a new pattern of a main line box relay devised by Mr. Barclay which is not only neat and compact but gives better results than the old pattern in every respect. The size of the box has been reduced to about one and a half inch in thickness, through which the cores and a considerable part of the coils protrude. Its construction is such that all connections and wiring are exposed and therefore easily accessible.

This may seem like a trivial alteration, but when the fact is considered that in many cases branch office operators use the top of the box as a receptacle for almost everything, from a pad of blanks to their lunch package, the benefit derived becomes apparent at once. The compactness of the new pattern precludes its usefulness as a shelf, hence its resonant timber is not liable to become deadened by the weight of office paraphernalia. The reduction in the size of the box was suggested by the fact that a thin snare drum gives out as great a volume of sound as a thick one. This law seems to hold good in the construction of box relays.

Another matter which is receiving considerable attention at present is that of insulation. As a result of recent investigations by the Western Union Telegraph Company it has been decided to henceforth substitute porcelain or earthenware for the India rubber tubings now almost universally employed for insulating wires entering cable boxes, buildings, etc. The decision in no wise reflects on the efficiency of rubber as an insulator, but serves as a lesson to all manufacturers of wares that if they would retain prestige the original quality of their goods must be maintained. The quality of the India rubber tubing delivered within the past few years has been found to be incapable of withstanding exposure satisfactorily and it is believed that the earthen pattern will fill the bill in every way.

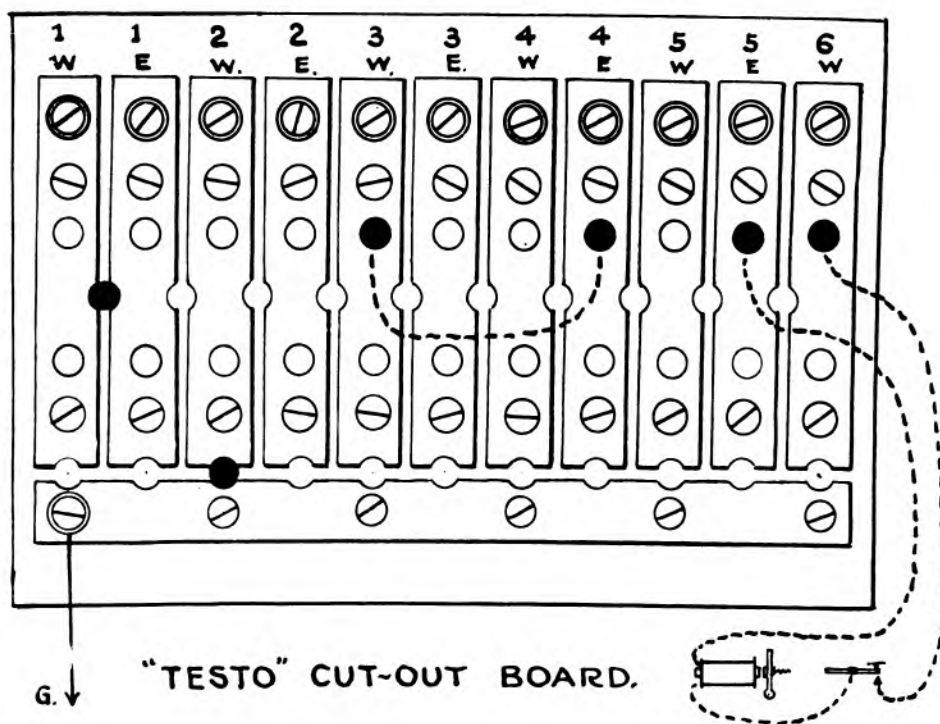
The latest departure from familiar methods of main wire switchboard construction seems to be due to the present demand for space in many of our large test offices to accommodate the hundreds of wires that center there. At Elizabeth, N. J., for example, the number of wires is so great that a standard board of the present pattern sufficient to accommodate all the circuits would more than cover the available wall space. To meet this emergency there has been recently devised a method by which the wires will occupy but a comparatively small space, while the operation of making patches is very simple.

Ordinarily each wire entering and leaving the switchboard requires two vertical brass strips for patching purposes which extend the full height of the board. This length is necessary in order

to be observed that this board contains no separate brass disks as the present type does, the patching and other connections being made by means of flexible cords having a metallic plug at each end the latter of which are inserted in holes cut through the brass strips as shown in the cut.

While there are a great number of wires centered in a test office of this kind there are really but a comparatively few patches or connections in operation at one time, hence there should be little or no confusion of cords on the part of the operator at such stations when effecting a change.

The telegraph operators of the Pennsylvania Railroad Company ought to be a well-informed body of men, for it is a noticeable fact that in



that a connection may be made with any desired horizontal row of disks extending across the board. Now, it is obvious that although but a few inches of the vertical strips are actually required in making a patch by the present method, several feet of the strip is uselessly occupying valuable space.

The accompanying diagram illustrates the manner in which the new standard pattern of switchboard for such offices, called the "Testo," is constructed, as well as showing a different means of making patches than the old way. It is proposed to cut each parallel vertical pair of brass strips into several sections, which latter, each represent an individual one-wire switchboard. The new switchboard, therefore, is merely a number of separate one-wire switches combined in one large structure, the wire capacity of which is enlarged as many fold as there are sections. It will

their extensive purchases of "Pocket Edition of Diagrams and Complete Information for Telegraph Engineers and Students," and of "Phillips' Code," their orders outnumber, probably in the ratio of ten to one, those received from all other railroads and from the commercial companies.

#### Business Notice.

A bright and amusing little story is that entitled "A Romance of the Rail." It is told in a way that will interest everyone who believes the course of true love can sometimes run smooth, and it is handsomely illustrated and beautifully bound. The booklet will be sent free to any one who will mail two cents in stamps to cover the cost of postage. Address T. W. Lee, General Passenger Agent, Lackawanna Railroad, New York City.

### Personal Mention.

Mr. Muraki, post and telegraph director of the Japanese kingdom, recently arrived in San Francisco from Japan to study our telegraph and post office systems.

Col. A. B. Chandler, chairman of the board of directors of the Postal Telegraph-Cable Company, who was recently in New York, on account of the death of John W. Mackay, has returned to his summer home in Vermont.

The engagement of Miss Blanche Estabrook, of Chicago, daughter of H. T. Estabrook, general solicitor of the Western Union Telegraph Company, and a niece of Col. Robert C. Clowry, president of the same company, to Karl G. Roebing, of Trenton, N. J., has been announced. Mr. Roebing is a son of Ferdinand W. Roebing, and a director of the John A. Roebing's Sons Company.

### Resignations and Appointments.

Mr. Wm. H. Spry, of New York, has been appointed manager of the Western Union Telegraph Company at Newark, N. J., vice C. L. Zeliff, resigned.

Mr. C. F. Hoke, manager of the Postal Telegraph-Cable Company at Chattanooga, Tenn., has been promoted to the managership of the same interests at Atlanta, Ga.

Mr. C. F. Ames has been appointed general manager of the Mutual District Messenger Company of Boston, Mass., vice D. J. Hern, resigned. Mr. Ames will also continue to act as manager for the Western Union Telegraph Company.

Mr. W. S. Seifred, manager of the Postal Telegraph-Cable Company, at Wapakoneta, Ohio, has been transferred to the Tiffin, Ohio, office. His brother, E. A. Seifred, succeeds him as manager of the Wapakoneta office.

Mr. Louis S. Stewart, who has been right-of-way agent and claim agent for the Postal Telegraph-Cable Company at Chicago, Ill., has been appointed manager of the same interests at Chattanooga, Tenn., vice C. F. Hoke, promoted.

Mr. Thomas Roche, for twenty-two years superintendent of the Western Union Telegraph Company, Boston, Mass., has resigned, and the vacancy has been filled by the appointment of Mr. Charles E. Page, manager of the Western Union office at Cincinnati, O.

Mr. E. W. Griffith, of the electrical engineer's office of the Western Union Telegraph Company, New York, has been appointed to a position of inspector of wire at Trenton, N. J. The company is purchasing so much wire that it requires the exclusive services of an inspector in its examination.

Mr. W. E. Conrad, formerly chief operator for the Postal Telegraph-Cable Company at Norfolk, Va., and for two years manager of the American Telephone and Telegraph Company's station at Troy, N. Y., has been appointed chief clerk to

Mr. H. S. Brooks, superintendent of the Telephone and Telegraph Company, New York City.

Mr. D. J. Hern, for many years general manager of the Mutual District Messenger Company, Boston, Mass., severed his connection with that concern on July 31. Mr. Hern has so long been connected with the messenger company, and so long, one might say, the company itself, that it has to most Bostonians been known as "Denny" Hern's Company," and the messengers as "Denny" Hern's boys." Before becoming identified with the messenger service, Mr. Hern was a telegraph operator and passed through all grades to the post of superintendent of the old Mutual Union Telegraph Company.

### General Mention.

It required one million and five hundred pounds of copper wire to connect New York and San Francisco. This is the actual amount of copper strung by the Western Union Telegraph Company on one of its San Francisco circuits erected recently.

The blanks now being distributed by the Western Union Telegraph Company have been changed to conform to the new conditions, and the name of Col. Robert C. Clowry, president and general manager, takes the place of that of Thomas T. Eckert, whose name so long appeared on the stationary of the company.

The new office of the Western Union Telegraph Company at Plainfield, N. J., is said to be the model telegraph office along the line of the Central Railroad of New Jersey. All the fixtures are new and the equipment modern in all respects. Mr. Charles H. Schermerhorn is the manager, a position he has held continuously since 1870. Besides the manager, the staff consists of Wesley Randolph, assistant; Edward Golden, night operator, and five messenger boys.

### New York Visitors.

Mr. L. Lemon, superintendent Postal Telegraph-Cable Company, Philadelphia, Pa.

Mr. James E. Rowe, of the Standard Oil Company's telegraph department, Pittsburg, Pa.

Mr. Charles C. Adams, general superintendent Postal Telegraph-Cable Company, Atlanta, Ga.

Mr. H. A. Tuttle, general manager North American Telegraph Company, Minneapolis, Minn.

Mr. J. P. Altberger, superintendent of the Western Union Telegraph Company, Philadelphia, Pa.

Mr. H. W. Pope, general manager Bell Telephone Company, Buffalo, N. Y. Mr. Pope was accompanied by his wife.

Mr. H. Greentree, of the Cuba Submarine Cable Company, Havana, passed through New York recently on his way from England to Havana, Cuba.

### Obituary Notes.

William Carley, aged sixty-two years, a well-known operator at Philadelphia, Pa., died in that city on August 8.

John Beale, superintendent of the Cuba Submarine Cable Company, at Santiago, Cuba, died at that place on June 8. He had devoted twenty years to the cable service at Barbadoes, St. Croix, Havana and Santiago. He was a native of Hitchie, England, and leaves a wife and two children.

Arthur C. Warhurst, aged twenty-six years, a native of Lewiston, Me., and for six years manager of the Equitable Building branch office of the Postal Telegraph-Cable Company, Denver, Col., died in that city on July 21. The floral offerings at his funeral contributed by Postal employees were beautiful.

### The Cable.

Mr. Samuel S. Dickenson, superintendent of the Commercial Cable Company's station at Canso, N. S., has returned to San Francisco, after arranging for the landing of the new Commercial Cable Company's cable at Hawaii.

Mr. S. G. Truscott, of Bermuda, an employee of the Halifax and Bermuda Direct West India Cable Company, who has been in England on a three months' leave of absence, passed through New York lately on his return to Bermuda.

Instructions have been issued by the United States Government to the Navy Department to take measures to prevent the cutting of the cable of the United States and Haytien Telegraph Company, which has been threatened by the rebels, who are striving for the overthrow of the present Haytien Government. Commander McCrea, of the gunboat *Machias*, has been instructed to protect the cable landing from all interference.

It is stated that the cable steamer "Anglia," while laying, recently, the Norfolk Island to Fiji section of the Australasian cable, encountered a cyclone which lasted ten hours. No one could pass along the deck: the speed of the ship was reduced, although full power was maintained, and all had to remain at their posts. The cable was not lost, however, but the course was preserved and the work done creditably. An experience of this kind is a good test of the training of a cable-ship's staff and crew.

At a meeting of the Anglo-American Telegraph Company in London, Eng., on August 1, the chairman, Francis A. Bevan, said nothing had occurred so far as he knew to alter the opinion of the directors that, although wireless telegraphy would carry a certain class of telegrams, such as those between ships or between ships and the shore, there was no reason apparent why it would compete in the class of telegrams sent by cable companies. The other day Lord Kelvin said to Mr. Bevan: "I have given careful consideration to this subject and I do not believe the shareholders of your company need be alarmed at the prospect of wireless telegraphy."

### Organization.

Four Western Union telegraph operators in San Francisco were dismissed because it was thought they were members of the new brotherhood of telegraphers.

Twelve Western Union and seven Postal operators, it is reported, met at Buffalo, N. Y., a few evenings since, and organized a local branch of the International Union of Commercial Telegraphers.

There has been more or less talk of organization in some of the centrally located cities, but the uneasy feeling so prevalent some two months ago, which was the cause of it, appears to have materially abated.

Mr. O. T. Anderson, of the Postal Telegraph-Cable Company, Chicago, Ill., has been elected secretary and treasurer of the South Side O. R. T. Division in that city. The meeting place is at Lodge Hall, 3900 Cottage Grove avenue.

Superintendent Crean, of the Yukon telegraph line, has advised the Department of Public Works, at Ottawa, Ont., that the operators and linemen have agreed to continue work until Minister Tarte is heard from. They have threatened to go on strike for some time past.

A few days ago a Kansas City operator is said to have made the statement, which was published broadcast, that the telegraph profession was about to inaugurate a gigantic strike, and were bulling the business as a preliminary step to this movement. In regard to the same, Mr. I. T. Dyer, the railroad telegraph superintendent of St. Joseph, Mo., made the following statement:

"There has been no talk of a strike or of trouble here of any kind. I was somewhat surprised at the statements alleged to have been made by a Western Union operator in Kansas City the other day, to the effect that the operators would fight for their rights by the underhanded means of occasionally losing a message or changing a quotation, thus causing damage suits which might cost the company thousands of dollars. I want to say that the man who made a statement of that kind was not representing the Western Union operators. The men employed by this company are honorable and they will not stoop to such practices. In order to secure employment with the Western Union, a man must come well recommended, be worthy and well qualified. It's all bosh, this talk of resorting to such methods to secure their demands. The men might use fair means to get what they want, but they are not the kind that will betray their employers to gain their ends. The man who made that statement is not representative of the class of men employed by the Western Union, and the suggestion he makes is a slur upon the honor of the operators which they resent. They are gentlemen."

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



### A Twentieth Century Suggestion.

BY E. L. BUGBEE, WASHINGTON, D. C.

At the beginning of the year 1900 TELEGRAPH AGE began a series of articles and invited suggestions on the improvement of the working of the quadruplex and maintaining it in all kinds of weather.

About the same time there was published an account of a line built by a telephone company from New York to Boston, by a nearly air line route, free from way offices and river cables, across country, some portions of the way over right-of-way acquired for the purpose, not following at all times the public highways. The purpose of this line was, as I understood, to furnish ten long distance talking circuits for through connections.

It occurred to me that here was an example for the telegraph companies. The short and sure way to work a quadruplex in all kinds of weather is to provide a wire that will be workable in all kinds of weather. It goes all right in good weather, and it is not the fault of the quadruplex, but the lack of wire insulation that makes it fail in wet weather.

A great improvement has been made within the past few years in substituting copper for iron wires, but this relates only to conductivity. It is still quite a common thing to close the second side of a quadruplex on a wet day. The wires still have escapes, swings, crosses and grounds. It used to be found with the iron wires that some one, or a few out of a lot, would work on a wet day while others would not work at all. What was the cause? Not a difference of conductivity but of insulation. It is much the same now except that with increased conductivity the margin of current is greater with a given amount of escape. Possibly tree limbs, kite tails, broken glass, etc., are not quite so numerous, but frequently the lines are "gone over" only at long intervals except for "trouble" of some specific nature, when the case is too urgent to stop for small repairs.

In the cities the "wire nuisance" has become so great that it is desirable to remove them from the streets wherever practicable, not only in the interest of the cities, but in the interest of the traffic passing over the wires as well. There is probably more trouble on the short sections in the cities and towns than on the long stretches through the country, making the mileage ratio two to one, or maybe ten to one against the cities.

There is no doubt in my mind of the superiority of a pike line over a railroad line in the matter of insulation. Having had experience with parallel lines of practically the same length, covering the same points, for many years, during which time both have been prostrated, repaired, enlarged and rebuilt, I do not hesitate to express the opinion that pike lines are preferable in wet weather. After reflecting upon the many troubles incident to telegraph lines and finding many defects but

some things better than others, I come to the following suggestions:

Has not the telegraph business reached such great proportions as to justify some new departures? We have been following along pretty much the same old ways for a decade or two. Why not make a substantial advance early in the new century? The example of the telephone company noted above might be followed and other features added, on some especially heavy trunk lines at least.

Why should not the Western Union, for instance, for its southern and western traffic from New York select an air line route from some point to the westward of Jersey City which would escape the fog-laden meadows between Jersey City and Newark and the numerous draw-bridge cables, to a point just west of Baltimore, say Ellicott City, where it would cross the Baltimore and Ohio railroad, thence on to Washington. This line would pass Philadelphia probably ten miles to the westward, would cross the Delaware, Susquehanna and all the smaller rivers above navigation avoiding all cables, would be almost wholly through rural districts, escaping nearly all the larger towns and particularly Philadelphia and Baltimore, where we have been partially or wholly cut off from New York a number of times within a few years by big fires or other city troubles.

Starting from New York with a line of ten ten-wire arms, wires could be diverted to the West at the crossing of the Reading, Pennsylvania, Baltimore and Ohio, or other trunk routes, and the remainder continue on to Washington and the South. Carrying as it does the entire southern and southwestern traffic, including the West India and South American cable business from New York and the traffic from Washington to the metropolis, the Northern and Eastern portions of the country and to Europe, makes this line perhaps the most important in the country or the world.

There is no need of these wires going into the Philadelphia and Baltimore offices as they are not used for local traffic, never have been and never can be, and they should not be subjected to city troubles. The wires between these points and New York could well remain on the railroads where it would probably be necessary to maintain lines. Our Philadelphia and Baltimore friends would perhaps at first thought feel scandalized at the mention of being left out of such a big thing, but after considering the trouble of maintaining so many wires entirely useless to them, and the expense, especially where they must be placed under ground, they would no doubt conclude to be glad of the relief. A line of such proportions would be of sufficient importance to warrant a daily patrol by repairmen and monthly inspection by foremen, which would prevent many of the troubles now common and insure the quick removal of those not prevented. It would also be of sufficient importance to justify more substan-

tial construction work and more thorough insulation.

Structural steel fixtures could replace the present wooden poles and arms, and the pins could be set in or on insulators in addition to carrying the glass insulators, thus doubly insulating the wires. The fixtures could be large enough to place the pins eighteen inches apart and the arms twenty inches, which would materially lessen the swings now so great a nuisance on windy days. It is suggested that such a fixture should be made up of four uprights of angle rods such as are used for bridge supports and building braces, set up in pairs, separated about ten feet at the bottom, one pair bracing the line lengthwise and the other pair crosswise with additional braces in all directions. These fixtures could be made so strong that no wind or sleet storm would ever tear one of them down, and they would not rot off at the butt. They would be so rigid that they would not sway with the wind nor give to the strain of the wires. Copper wires would hold up taut longer in consequence and decrease this cause of swings. The wires only would break down in a storm. On account of their great strength and stability the fixtures could be placed at maximum distance apart thus reducing the number of insulators and the consequent amount of leakage.

Double insulation is not a new idea but has not been developed to any extent. The matter of insulation has not kept pace with other improvements in line building and yet it is the most important. It is the lack of sufficient insulation, and that only, which prevents working the quadruplex in all kinds of weather.

It is quite probable that further improvements will be made in quadruplex instruments, but the most pressing present need is for more stable and better insulated wires. Is not this so, Mr. Editor?

#### Reproval for Working Too Fast.

The following, which affords an insight into the workings of the postal telegraph system of England, appeared lately in a special dispatch to the New York Herald. It constitutes, in fact, a fitting rebuke to those faddists who would import methods and ideas, however crude, from abroad as fitting examples for adoption in the United States, over proved superiority of domestic procedure:

"Inefficiency in Government departments has become a condition so well recognized in England that it takes a glaring case to cause any stir. For this reason a recent report from the controller of the London postal service has failed to attract the attention it deserves.

"It is stated that the telegraph operators, or clerks, as they are styled here, were so inexperienced and inefficient at the General Post Office that a circular had to be sent to the principal offices in the Kingdom instructing provincial operators not to send at top speed when working with London.

"As another example of the curse which paternal principles inflict upon England, in the General Post Office, as in all establishments where skilled labor is employed, the men are banded together by a mutual desire to do as little work as possible. One instance which came to light recently showed plainly the spirit animating the men. One of their number who showed energy and aptitude was reprimanded by his chief because he did too much work. His fellow workers had watched and reported him.

"The official explanation of the circular was that in a large office like the central telegraph office there must necessarily be a considerable number of recruits. The object of the circular was to insure that in any case in which the telegrapher at the out office was more expert he should adapt his rate of working to the capacity of the receiving telegrapher at the central office.

"This official explanation is likely to excite derision in leading business centres of the United Kingdom. It is certainly astounding that the expert telegraphers in Manchester, Liverpool, Glasgow and Dublin, who are capable of receiving telegrams as rapidly as the words can be committed to paper, should be compelled to restrict their speed to the slow operations of inefficient recruits in the chief telegraph office of the greatest city in the world."

#### A New Method of Swindling.

A novel scheme of defrauding a large New Orleans (La.) telegraph customer has just come to light. The plan pursued was a simple though effective one, and its success was made possible only by the confidence in which a clerk of the customer was held by his employers. It was a part of his duties to approve all telegraph accounts and to give a due bill on the cashier for their payment. As the telegraph bills amounted to several thousand dollars a year, it was an easy matter for the clerk to give a due bill to the telegraph company's collector for an amount in excess of the true account. This would be paid without question, and the two would divide the profits.

#### Directory of Telegraph Organizations.

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

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

"Can't you make fifteen or twenty words out of that, Henrietta?" asked Mrs. Parvenue, as her daughter was writing a telegram. "I don't want the clerk to think we can't afford to send more than ten words."

Subscribe for TELEGRAPH AGE, \$1.50 a year.

**W. J. Slater.**

Mr. W. J. Slater, who assumed the management of the Louisville, Ky., office of the Postal Telegraph-Cable Co. on August 1, 1902, was born in Washington, D. C., in 1866. His first service was with the Baltimore and Ohio Telegraph Company in the same city, from whence, after several years of service, he accepted a position with the Western Union at Boston, Mass. In 1888 he resigned and returned to Washington to cast his

**W. J. SLATER.**

Lately Appointed Manager at Louisville, Ky., of the Postal Telegraph-Cable Company.

fortunes with the Postal. A year later he received an appointment in the Government printing office, where he remained until 1894, when by a turn of the political wheel his place was claimed for one of a different faith. He then returned to the Postal, where he was advanced through the successive grades of promotion, becoming chief operator at the beginning of the Spanish war. During the trying period of that war, and on many succeeding occasions when the sudden and unexpected incidents of national interest which occur at the Capital city make the duties at Washington most trying, Mr. Slater showed such marked ability that the company has done wisely in promoting him to a position where his qualifications will have a still broader scope in the field of management.

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

**John D. Prosser.**

Mr. John D. Prosser, who was appointed chief operator of the Postal Telegraph-Cable Company's office at Washington, D. C., on August 1, was born at Cynthiana, Ky. His parents removed to St. Joseph, Mo., and afterwards to Nebraska, in which state, at the age of 13, Mr. Prosser learned telegraphy, and became so proficient that before he was 16 years old he was employed as Associated Press operator in the Western Union office at St. Joseph, Mo. On December 1, 1881, he was transferred to Galveston, Tex., where he remained until 1885, resigning to go into other business. He entered the service of the Postal Telegraph-Cable Company in 1891 at Birmingham, Ala., and was soon promoted to be traffic chief, and later night chief operator. From Birmingham, he was transferred to Richmond, Va., on January 1, 1898. Here he remained for two years, when he was transferred to the Washington office. In December, 1900, he was appointed traffic chief of that office, and is now advanced to

**JOHN D. PROSSER.**

The New Chief Operator, Postal Telegraph-Cable Company, at Washington, D. C.

the position of chief operator. Mr. Prosser is well and favorably known to the telegraphic fraternity, particularly in the South, where he has lived for the past twenty years, and has many friends who will be glad to learn of his promotion.

**FLEXIBLE RUBBER KEY KNOBS** made to fit over the hard rubber telegraph Key Knob, render the touch easy to the finger and improves the sending of the operator. These Key Knobs are sold at twenty-five cents apiece. Those who once try them are certain to use them permanently. For sale (send stamps) by TELEGRAPH AGE, 253 Broadway, New York.

### Patrick J. Tierney.

Mr. Patrick J. Tierney, manager of the Central Cable office and of the Western Union branch, at 46 Broad street, New York, who succeeded to the position formerly, and for so many years, held by the late M. H. Redding, is one of the best known telegraph managers in the United States. He is a native of New York City, where he was born on January 18, 1856. His first entry into the telegraph service was as a messenger. This was in 1870 when he was but fourteen years of age. Soon thereafter, gaining promotion to a clerkship, he applied himself diligently to the study of telegraphy. Always a close student he was shortly able to take his place at the key, and his subsequent development was rapid until finally he was accounted a first class operator. His abilities won for him recognition by his official superiors, and his promotions have been steadily upward through the various grades of service, from mes-



PATRICK J. TIERNEY.

Manager of the Central Office and Western Union Branch, 46 Broad Street., New York.

senger to chief operator and finally to the responsible managership which he now fills so acceptably. While most of Mr. Tierney's telegraphic career has been confined to New York, yet for a brief period in the seventies he served as an operator for the Western Union at Omaha, Neb., and at Chicago.

An incident that Mr. Tierney regards with no little pride, for it reveals the tact, good judgment and business acumen displayed frequently by him under trying circumstances, occurred at the conclusion of the late war between the United States and Spain, when Brigadier-General Greely wrote to President Eckert of the Western Union Telegraph Company complimenting that company on the censorship that had been exercised at the Central Cable office during the war, a special duty that had devolved personally upon Mr. Tierney.

The important office of which Mr. Tierney is now manager is located in the heart of the financial district, and is the largest in point of receipts of any branch office in the United States. As a cable expert Mr. Tierney has an enviable record, and two of the Western Union cables are under his management. He understands thoroughly the financial requirements of Wall street regarded from a telegraphic standpoint, and is held in high esteem by the business community of that section as well as by the large office staff under his immediate control.

### Edward Francis Welsh.

Mr. Edward Francis Welsh, who for many years was assistant wire chief in the operating room of the Western Union Telegraph Company, New York, has been promoted to a position, carrying the same title, in the office of Superintendent Mulford, where he will be the assistant to



EDWARD FRANCIS WELSH.

Assistant to General Wire Chief W. A. Van Orden.

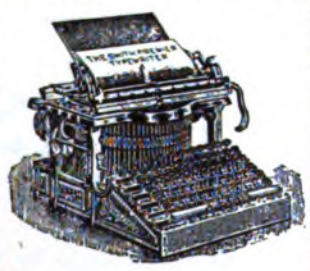
General Wire Chief W. A. Van Orden. Mr. Welsh entered the telegraph service as messenger at New Brunswick, N. J., and was appointed operator there in 1882. He became an employee of the Western Union Telegraph Company in 1873, in New York, and 1874, he was with the Pacific and Atlantic Telegraph Company, at Pittsburg, Philadelphia and New Brunswick. He returned to the Western Union Telegraph service in 1875 at New York, where he remained until 1883, when he located at Helena, Mont., as night press operator and where he also served as deputy county recorder, a civil position, until 1886. He returned to New York in 1888, for the Western Union Telegraph Company, and filled the positions of traffic chief on the West and South until 1893, when he was appointed assistant wire chief, a position he held until his present promotion.

**TYPEWRITER EXCHANGES**

**SELL GOOD MACHINES**  
 AND ALL TITLES ARE GUARANTEED.

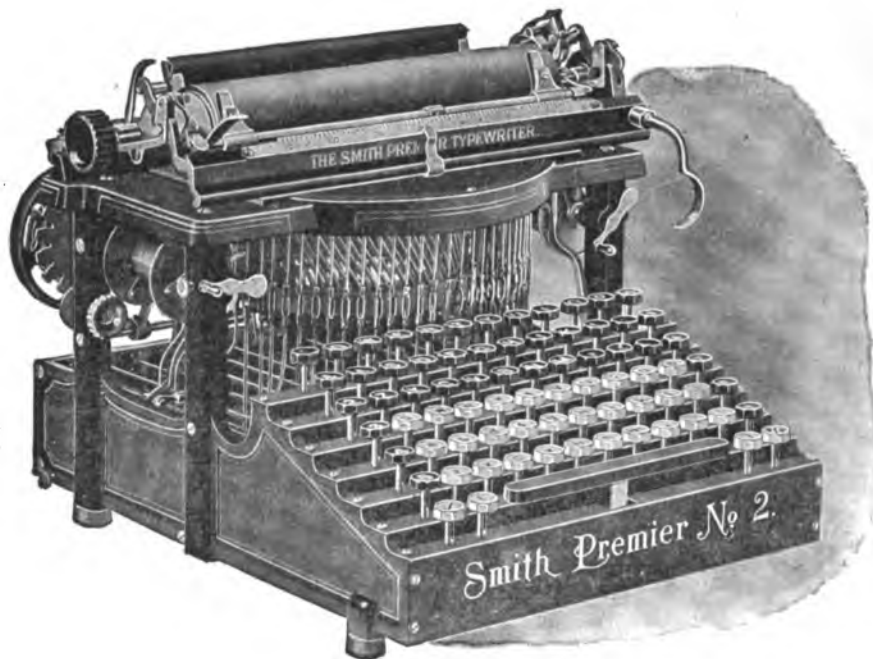
**EIGHT STORES**

- NEW YORK ~ 1 1/2 BARCLAY ST.
- BOSTON ~ 38 BROMFIELD ST.
- CHICAGO ~ 124 LA SALLE ST.
- KANSAS CITY ~ 818 WYANDOTTE ST.
- ST. LOUIS ~ 208 NORTH 9TH ST.
- SAN FRANCISCO ~ 536 CALIFORNIA ST.



W.A.V.O.

# The Smith Premier Typewriter



GRAND PRIX, <sup>or</sup>  
PARIS, 1900.  
HIGHEST AWARD  
POSSIBLE.



Favorite of operators on  
Press wires. Complete  
Keyboard. Always ready.  
Never out of order.



Simple, Durable,  
Light Touch,  
Strong Manifold.

THE SMITH PREMIER TYPEWRITER COMPANY  
SYRACUSE, N. Y., U. S. A.

## THE GAMEWELL FIRE ALARM TEL. CO.

19 BARCLAY ST., NEW YORK.

Gold Medal awarded at Berlin, Germany. Exposition of Appliances for Fire Prevention and Fire Extinguishment.

FIRE ALARM and POLICE SIGNAL TELEGRAPHS For Cities and Towns.

Over 1,000 Plants in Actual Service.

SELLING AGENTS:

- Frank C. Stover, 161-163 Randolph Street, Chicago, Ill.
- A. J. Coffey, 230 Kearney Street, San Francisco, Cal.
- Oliver P. Crocker, Atlanta, Ga.
- Wm. E. Decrow, 178 Devonshire Street, Boston, Mass.
- Southern Electric Co., Hoop Building, Baltimore, Md.
- Webb Chandler, Richmond, Ind.
- Utica Fire-Alarm Telegraph Co., Utica, N. Y.

## To Railway Telegraph Superintendents.

You are interested in saving time and money by telephoning and telegraphing over the same wire. We can help you to accomplish this if you will write to us. We make telephones for long or short distance, indoor or outdoor use. Write for particulars.



ERICSSON TELEPHONE CO.,

296 BROADWAY,

NEW YORK CITY.

## Rider Agents Wanted

in each town, to help us sell overstock of high grade bicycles at *half* factory cost.

**New 1902 Models.**

"Bellise,"	500 cc	\$8.75
"Cossack,"	600 cc	\$9.75
"Siberian,"	700 cc	\$10.75
"Neudorf,"	800 cc	\$11.75

Any other make or model you want at one-third usual price.

Choice of M & W. or Record tires and best equipment on all our bicycles. *Shipped immediately.*

**SHIP ON APPROVAL** at **ONE-THIRD** the usual price and allow **10 DAYS FREE TRIAL** before purchase is binding.

500 good 2nd-hand wheels **\$3 to \$8.**

DO NOT BUY a bicycle until you have written for our free catalogue with complete list of prices and full details.

**MEAD CYCLE CO.** Dept. 123 M Chicago.

# DYNAMOTORS FOR TELEGRAPH WORK

By reason of superior design and construction our apparatus gives the best possible commercial value under all conditions of service.

## SPRAGUE ELECTRIC CO.

General Offices: 527-531 West 34th Street, New York.

# The Telegraph Age.

Entered as second-class matter at the New York, N. Y., Post Office.

Published on the 1st and 16th of every month.

## TERMS OF SUBSCRIPTION:

One Copy, One Year, - - - -	\$1.50
One Copy, Six Months, - - - -	.75
Foreign Countries, - - - -	2.00

ADDRESS ALL COMMUNICATIONS TO

**J. B. TALTAVALL, - Editor and Publisher,**  
253 BROADWAY, NEW YORK.

E. H. BOWEN, MANAGER ADVERTISING DEPARTMENT

W. N. GATES, SPECIAL ADV. AGT., GARFIELD BLDG., CLEVELAND, O.

CABLE ADDRESS: "Teleage," New York.  
Telephone, 4143—Cortlandt.

**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.

**REMITTANCES** to Telegraph Age should be made invariably by draft on New York, postal or express order, and never by cash loosely enclosed in an envelope. By the latter method money is liable to be lost, and if so remitted is at the risk of the sender.

NEW YORK, August 16, 1902.

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

It is a significant and instructive fact that a large proportion of the individuals in the Western Union service who, through successive advancement have recently attained high executive positions, served at some period during their careers as agents of TELEGRAPH AGE. Many have taken occasion to speak of the practical training in business affairs they then received by reason of such connection, and of the marked influence for good upon their own lives and fortunes exerted by this journal in its efforts to stimulate a spirit of studiousness, earnestness of purpose and painstaking effort among them, in the observance of which advice they attribute much of their success. Verily, the correct relation between cause and effect is not difficult to determine.

### Success in Life.

In a letter lately received from an operator the statement was made, that, however deplorable

the fact, telegraph operators were not as a rule a very successful class, and "as once an operator always an operator," without, it was stated, much prospect of betterment, advice was sought of TELEGRAPH AGE on a subject into which the writer went with considerable detail. In this letter, which, unconsciously to the writer perhaps, bordered on the pathetic, we detected the touch of anxiety which evidently pervaded his mind regarding the uncertainties of the future viewed from a financial standpoint; and in its perusal we confess to a mingled sense of sympathy and pity aroused in behalf not only of the individual in question, but for the type of those whom he represents, as well. It is difficult usually to give advice; oftentimes it is unprofitable to do so, especially when a man has passed the meridian of life, because then it is likely to be too late to be of any benefit; nevertheless we have well-defined views on the general question involved in our correspondents' letter, but which was rather incoherently expressed by him in his painful reaching out for a solution of a confessedly hard, confronting problem.

Few men, as a rule, have a definite aim in life. The most of us, more's the pity, pursue a drifting career. We are prone to be governed by circumstances, which are frequently, it is true, uncontrollable, and this is one's misfortune; but more often our vagaries are due to lack of individual force of character.

Many young men are attracted to telegraphy by the fact that the money to be earned thereby is abundant in proportion to their years. During the period of youth and young manhood, say from fifteen to thirty years of age, while health is strong, the future seemingly distant and the happy and easy-going present apparently ever-abiding; when with expertness at the key, and consequently with good earning ability, easily capable of working a double trick, with its extra emoluments, the after-years with their changed condition of environment and responsibility, receive but scant consideration. The money thus readily acquired in early life is too often frittered thoughtlessly away in the free mode of life adopted. No real equivalent has been received for it, and the experience gained, even, is of doubtful utility.

It is important that these formative and character-molding years should be the period for mapping out the plan and course of life; that sobriety of conduct, economy in expenditure, studiousness and intelligent application should be governing principles in the serious preparation for the work before us. A man mentally well equipped, morally strong and of resolute manly courage, especially if he be possessed of physical health, has little to fear in the battle for existence which all must wage. He will command recognition by earning it. His motto should be: "I will!"

It is not obligatory of course for one to remain in the telegraph service; for prudential reasons one may elect to abandon it. The training received therein, however, if it be honest, ought to

fit one for almost any occupation in life. But if the young man, liking his profession, proposes to adhere to telegraphy, making that his life work, then let him energetically make every one of its branches a profound study; let him with firm determination so master his subject that in every phase of telegraphy he shall be regarded as proficient. If he will so fit himself, continuing loyal and free from all entanglements, his upward career will be assured. It cannot be otherwise, for he is the man that is wanted. Then, when middle or old age shall be reached he will not be a pitiable object of commiseration. He will have worked his way to independence, and his self-respect will have no blight upon it. Faithfulness, studiousness, energy and moral integrity beget capacity, and capacity is always at a premium.

**T. S. F. T. A. O. T. C. O. T. O. A. E. O. T. W.  
U. T. C. Redivivus.**

After a long period of innocuous desuetude, of repose as gentle as a summer's day, of quiet absolute as that of an unused garret, that unique association vaguely known by some as the "Telegraphic Alphabetical Society," and by others as the "T. S. F. T. A. O. T. C. O. T. O. A. E. O. T. W. U. T. C." which, being interpreted, means, with pleasing euphony, "The Society for the Amelioration of the Condition of the Officers and Employees of the Western Union Telegraph Company." This cobwebbed society has, we say, by a mighty mental and physical effort, superinduced by all the genial influences due to gastronomic art, pulled itself together, rubbed its eyes and awakened evidently to a new life. Let us hope that it may be of long tenure.

It must be that this "Western element," about which we have heard so much, has swooped down upon the portals of the Western Union in Gotham with a force and power that is simply irresistible and which is carrying all before it. For, it now appears that not content with conducting successfully the affairs of the telegraph company, these same Western Union officers are getting a grip on the social side of life, making themselves entirely at home, as it were, in the great metropolis. Here's a pretty state of affairs, indeed!

Whether the act was deliberately premeditated is not known, but certain it is that one day, not long ago, a "gathering," so it was said, of the officers of the Western Union Telegraph Company took place in the lunch room of the company, at 195 Broadway. What constituted the menu is not stated, but that it was of a grateful and inspiring character is evident from the fact that before the luncheon party broke up, the resurrection of the multi-initial society was determined upon. Not satisfied with that measure as a preliminary move, and quietly adjourning in a well-ordered way, to meet again and perfect a programme with dignified leisure the assembled company, in a bold yet business-like manner, completed the job, and by a unanimous vote elected Mr. J. C. Barclay, the genial electrical engineer of the Western Union

Company, whose home hitherto has been in Chicago, that great competing town of the West, as president of the society. This self-confident stroke, so soon following upon the nomination of Colonel Clowry to membership in the Magnetic Club, was received with great glee, and a "future" for the society was immediately predicted.

It is given out that the duties of President Barclay will be very arduous. The principal labor he will be called upon to perform this season will be to arrange for an outing on the stanch cable ship "Western Union," an event soon to occur. It is hinted that a trip to the fishing banks is in contemplation, and that on that occasion, and others of like character, when the Western Union Navy is called into requisition, the title of "Admiral" shall be bestowed upon the commander. Whether suitable lengths of cable are to be employed as fishing lines for the intrepid mariners who shall venture oceanward, we are not advised, but evidently a fearless onslaught on the finny denizens of the deep is intended. And it is said that in varying form these so-called excursions are to be repeated from year to year, even though it be to the positive detriment of every fish off New York harbor. What the real outcome of these fishing trips will be no fellow will ever know, for the members of the society are wisely pledged to secrecy, and what the deep refuses to give up, Fulton market may supply.

If by means of this society amelioration of the condition of any of the officers and employees of the Western Union Telegraph Company be accomplished, then, indeed, will its mission be hailed with acclaim, and clamorous will be the demands of others, even those outside the sacred precincts of Western Union telegraphy, for admission to its yearly outings.

**Mental Anguish Doesn't Count.**

United States District Judge Beatty, of Sacramento, Cal., has decided in the case of Willard A. Fairbanks against the Western Union Telegraph Company, holding that mental anguish is no cause for an action for damages, and dismissed Fairbanks' suit for \$5,000 against the telegraph company.

The action was brought because, as alleged, on September 12, 1901, a telegram was sent from San Francisco to Fairbanks, who was at Sacramento, notifying him that his wife was very ill and for him to return immediately. The charges on the dispatch were paid at 1 p. m. and it was received in Sacramento at 2.08 p. m., but was not delivered until 11.30 p. m. Nine hours and twenty minutes had passed between the time that Fairbanks received the message and the time the telegraph company had accepted it. Mrs. Fairbanks, who afterward died, was on her death bed, and the non-receipt of any reply from her husband caused her great anxiety. The telegraph company filed a demurrer to the complaint, saying that mental anguish was no ground for damages, and this view was taken by the court.



### First Train Dispatching by Telegraph.

The following letter from Mr. G. C. Kinsman, of Decatur, Ill., superintendent of telegraph of the Wabash Railroad Company, explains itself:

"I have read with much interest your article in *Telegraph Age* of July 16, under the caption of "First Train Dispatching by Telegraph." Mr. Conklin, who is mentioned therein, is my neighbor, and a man worthy of all praise, and I am sending you herewith an article written by myself some five years ago for the *Railway Magazine*, which shows that to Mr. Conklin belongs the credit for the first practical application of the telegraph to railroad management. This article also contains a most interesting letter from Mr. D. Wilmot Smith, with which you may or may not be familiar."

#### THE RAILWAY TELEGRAPH.

BY G. C. KINSMAN.

Superintendent of Telegraph Wabash Railroad.

In the grand march of civilization the railway has been the great leader. It is therefore fitting that the development and success of the electric telegraph was made possible by aid given its American inventor by the first passenger railroad, as evidenced by the following extract from the minutes of the Board of Directors of the Baltimore and Ohio Railroad Company at a meeting held at their office in Baltimore, Md., on Wednesday, April 5, 1843.

"A letter was received from Samuel F. B. Morse asking the privilege of laying the wires of his telegraph upon the line of the road between this city and Washington, and a report thereon from B. H. Latrobe, chief engineer, which was read. On the motion of Mr. Nicholas, seconded by Mr. Kennedy, the following resolution was adopted, viz.:

"Resolved: That the president be authorized to afford to Mr. Morse such facilities as may be requisite to give his invention a proper trial upon the Washington road, provided in his opinion and that of the engineer it can be done without injury to the road and without embarrassment to the operations of the company, and provided Mr. Morse will concede to the company the use of the telegraph upon the road without expense, and reserving to the company the right of discontinuing the use if, upon experiment, it should prove in any manner injurious."

The first wire was enclosed in a lead pipe and laid in a trench, but it could not be worked on account of defective insulation. Poles were then brought into use and the line completed the following Spring, the first message being transmitted from Washington to Baltimore, May 24th, 1844. It appears, however, that the railroad company made no use of this telegraph line, and the fact that the board of directors, in granting Morse permission to build upon the railroad company's land, hedged the privilege with many reservations, indicates that the desire to assist a worthy and struggling inventor was greater than the belief in the utility of his invention.

The early records are incomplete, but the best evidence obtainable warrants the belief that the Erie Railroad was the first to actually use the telegraph for the purpose of moving trains.

Mr. Reid, in "The Telegraph in America," says: "Charles Minot, general superintendent of the Erie, had the sagacity to foresee the value of the telegraph in connection with railroad service so strongly and clearly that he had a line built along his road before closing any contract for machinery to work it. Mr. Minot appears to have been the first railroad officer to broadly and thoroughly comprehend the use of the electric wire in railroad management. It was one of those instinctive and overpowering convictions which at once, in the brain of an earnest man, constitute a necessity which hesitates at no obstacle he feels to be surmountable."

When the Erie Company had put up one wire from Piermont to Goshen, Mr. Minot sought means for a practical test of its usefulness. Battery and instruments were easily secured, but to find a man competent to manage it was a more difficult matter.

Mr. Edward Harold Mott in his "History of the Erie

Railroad Company," writes: "D. H. Conklin, then a printer's apprentice at Peekskill, N. Y., had learned telegraphy on the Ezra Cornell line at that place in 1848. In 1850 he went to Williamsburg, N. Y., to work at his trade of printing. The New York and Erie Railroad Company, at the suggestion of Charles Minot, its then superintendent, was building a line of telegraph for its own use. The line was up between the terminus of the railroad, the pier at Piermont and Goshen, New York, but no operator had been employed and it was not in working order. Ezra Cornell told Mr. Minot that D. H. Conklin could put it in order for him. Minot sent for Conklin in December, 1850, who was then about nineteen years old, and employed him to go to the pier and see what he could do. Conklin went and in a few days succeeded in getting the battery at the pier in shape and got the Cornell operator at Goshen, Hector J. Vail, to answer his calls. The line worked successfully between the two points. This was January 3, 1851. The Erie line was incomplete west of Goshen. Minot insisted on young Conklin remaining in the service of the company and he did so as operator at the pier. While there he saw the value of the telegraph in expediting railway traffic and urged the authorities of the Erie persistently to use the wire in directing and instructing their employes in their duties along the route. Conklin himself, made the first practical application of the telegraph to railroad management. The exact date of this cannot now be fixed, but it was some time during the Winter or early Spring of 1851. The railroad terminated at Piermont. Connection was made with New York by steamboats and barges. No one at the pier knew at what time trains would arrive, and consequently scores of freight handlers would be idle until expected trains did arrive, and then long delay would result after the arrival, in transferring freight, stock, etc., from the cars to the boats.

"This was repeatedly the case with live stock. Conklin conceived the idea that if it were known just what amount of stock the train on its way to Piermont had aboard, all arrangements for its unloading and placing aboard barges could be made pending the arrival, and much time saved in the transfer. Accordingly he arranged with the conductor of the stock train to telegraph him each day from along the line the number of cattle he would bring in. With this knowledge in his possession, Conklin was able to have the necessary space on the barges all ready, and every detail for transfer complete when the train got in. The consequence was that the first day this was tried, the barge was in New York unloaded and the cattle delivered at their destination, and the work of unloading the other freight from the barge almost done, hours before the barge had formerly reached the New York dock, much to the delight of Superintendent Minot. That was the first practical application of the telegraph to the facilitating of railroad work in the history of telegraph and railroad, and to D. H. Conklin belongs the honor of making it."

Up to this time the telegraph had not been used for moving trains, but a little later, when the wire was extended to and beyond Elmira, Mr. Minot authorized its use to fix meeting points between delayed trains.

This brought trouble and open revolt on the part of the trainmen, who had no confidence in this new agency, which they could not understand. There were no formulated rules, and no train dispatchers, nor any precedents for either. Mr. Minot, however, was equal to the emergency, and rules were forthcoming which designated certain "division agents" (as the division superintendents were then called) as train dispatchers, with authority to direct the movement of trains under certain specified conditions. These orders were crude and handled with considerable uneasiness at first, but as time brought confidence and improved service the system grew, and reports of its popularity spread to connecting roads, which, after investigation, began similar service as fast as wires could be built and competent men found to manage the work.

Mr. D. C. McCallum, who succeeded general superintendent Minot, and in whose hands the telegraph increased in importance made this statement in his report to the Board of Directors, some of whom had complained of its expense: "I would rather have a road with a single track with the electric telegraph to manage the movement of its trains, than a double track road without it."

Upon the solid foundation laid by these sagacious men has been built the magnificent service of to-day. The telegraph wires upon a great railway system have been likened to the nerves of the human body. In that a touch at either extremity is instantly registered at the head. To adequately describe this service is far beyond my ability; suffice to say, that it enters into and becomes a

part of every transaction, and is used by every railroad in every country and climate.

It forecasts the weather and enables officials to guard against danger from approaching storms. It instantly reports damage by wind or flood, and prevents disaster in many ways by giving prompt warning. It moves trains promptly and safely, and practically doubles the capacity of every single-track road. It brings the most distant stations and manifold patrons of the company into close relationship with the management, to the great advantage of both, and unites the many officers and employes of the great system into one compact and well organized army ready to march in solid columns to achievements which without its aid would be impossible.

It transmits observatory standard time automatically to every station at the same instant, which is a great factor in the safety of train movements. It affords steady and lucrative employment to more than 40,000 persons and brings sunshine and comfort to many homes. All this and much more is done by the railway telegraph of the present day at a cost of less than three per cent. of the total expense of the operation and maintenance of the railway. The greatness of its future we can but dimly conceive.

The following letter, written to me by Mr. D. Willmot Smith, the first superintendent of telegraph of the Michigan Central Railroad, is of such general interest that I permit its publication in full:

"I entered the employ of the New York and Erie Railroad as operator in 1851. That road was the first to run a train on telegraphic orders. Not long before my connection with the road, Charles Minot, formerly superintendent of the Boston and Maine Railroad, but then superintendent of the Erie, was at Turner's Station (an eating place) on a west bound passenger train. He learned that the east bound passenger train was some hours late, and wrote an order for the conductor and engineer of the trains he was on to run to Port Jervis (I think it was called "Delaware" at that time) regardless of the east bound train. The engineer respectfully declined to take what seemed to him a criminal risk. Mr. Minot, who had some knowledge of running an engine, ordered the engineer to take the rear seat in the rear coach. He then mounted the engine and ran the train to what is now Port Jervis. I should have said that before giving the engineer the order to run, he had ordered the agent at Port Jervis to hold the east bound passenger until his arrival. When the train Minot was on reached Port Jervis, he ordered the engineer to his engine again. That was the first order given on any road by telegraph for the running of trains regardless of their time on "time table." I never heard it disputed, nor of any one else claiming the honor, until the other day I saw it stated in a newspaper that Andrew Carnegie was the first who ran trains on telegraphic orders.

"I had an almost exactly similar experience later on the Hannibal and St. Joseph Railroad, in Missouri, in 1859. I had just finished building their telegraph line, had prepared and published the necessary rules, etc., on a new time card for running trains on telegraphic orders. On the day it first became necessary to issue such an order under the new conditions, I was at Brookfield, an eating station just established, about the centre of the line. The two passenger trains should meet and pass at that point. The east bound came in on time. The west bound was late. I wrote what was the first order for moving trains by telegraph on that road. It was for the east bound train to run to a station some ten miles east, to meet the west bound passenger train. I stepped out on the station platform and handed the conductor and engineer copies of the order, first reading the same to them and assuring myself they fully understood it. After reading his order the engineer said he could not run on such an order. He told me, as had the engineer to Minot, on the Erie road: 'There is my engine. You can take it, but I cannot run on this order.' Passengers had come from the eating room and surrounded us, some expressing fear at such a proposed violation of the safety of the old-time way of running trains.

"I lacked Minot's ability to run an engine, but I told the engineer I would not ask him to take a risk I would not take myself, and that if he would run the engine I would mount the cow catcher and meet whatever danger there might be just before he would. Like the great majority of his class, who are so little appreciated by the millions who entrust their lives to their skill, he was clear-headed, brave and knew how to do the right thing at the right time. I regret I cannot give his name. He replied that he would not ask me to ride on the cow catcher, but if I would ride in the cab with him he would

take the risk. We rode out the order together, and there was never an objection raised after that against running on telegraphic orders.

"This occurred in 1859. It was at the time of the Pikes Peak gold excitement. The Hannibal & St. Joseph ran 150 miles farther west than any other railroad and was almost swamped by the travel. Railroadng was yet in its infancy; most of our passengers knew nothing of tickets, but paid their fare on the train. It was no unusual thing for the conductor to be loaded down with \$1,000 or \$1,200 on a trip. I say loaded down advisedly, as those fellows had little faith in the wild cat banks of those days and showered the poor conductor with gold. Perhaps I had better withdraw that word 'poor' before conductor; my impression at the time was that they were not to be pitied very much, but understood thoroughly how to care for themselves.

"It was in the Spring of 1856 when the great advantage of running trains by telegraph began to be recognized by other roads than the Erie. In that Spring the Michigan Central sent its assistant superintendent to New York to confer with the Erie's officials on the subject. As a result, the Michigan Central decided to adopt the system. They asked the Erie to recommend and let them have one of its employes competent to introduce it. I was on a leave of absence at the time and when passing through Detroit on my way to New Orleans, called on the superintendent of the Michigan Central, with a letter from Mr. Minot, of the Erie, for a pass over the Michigan Central road. He gave me the pass, and then said they were thinking of running trains by telegraph on their road, and asked to know what I thought of it. After quite a talk, to my surprise he said: 'We will want a man to start and run the thing.' It occurred to me I might better myself, and perhaps not too modestly, said: 'I can do that.' He asked 'What would you do first?' I answered: 'Is your line built?' He replied: 'No.' I said, 'the first thing I would do, I would build the line.' He laughed heartily, and luckily didn't ask if ever I had built a line, or knew anything about it. If he had I would have been obliged to acknowledge I didn't even know how many poles it took to the mile. He told me their assistant superintendent was in New York, and that he would telegraph him to inquire about me.

"I stepped into the public telegraph office and sent a message to the superintendent of telegraph of the Erie Railroad to do what he could for me in the matter. He afterwards paid me the high compliment of saying that 'As they were rejoicing that I was away and knew nothing of the Michigan Central's request for a man, my message was handed in, and that as they knew they would lose me if they recommended any one else, they then did what, but for losing me, they wanted to do all the while, that was, gave me the highest possible recommendation.' When the Michigan Central's assistant superintendent asked them what salary they ought to pay me, they told him 'Whatever I asked, but secure me at my own figures!' Unfortunately they didn't let me know all this until after I had set my price.

"I built their line that Spring, got up the new rules and regulations, introducing some improvements over the then Erie system, which, as a subordinate on that road, I could not do there. As I said, railroadng was then in its comparative infancy and not the marvelously complicated and perfect system of to-day. One official often had powers and duties it takes several to control now. As superintendent of telegraph, I not only was held responsible for train running by telegraph, but had authority to discharge any conductor or engineer on the road who interfered with or disobeyed any train order. With some other duties and responsibilities that power of dismissal was necessary: as the whole of the train employes, almost without an exception, were opposed to the new order of things, and prophesied and openly hoped that within six weeks there would be such a terrible accident as would cause a return to the old ways and an ignominious defeat of 'the boys,' as they called us, 'who had come from the East to teach old railroad men their business.'

"I find to my surprise that as I think of those days, which I scarcely have done for a quarter of a century, a crowd of memories start up which I had supposed were buried and forgotten. I was at the head of the telegraph department of the Michigan Central for five years. During those five years, with only a single track, we ran the trains by telegraph and never had the slightest accident through train orders—not so much as a finger broken; a record which I believe has never been made before or since on this continent, and I am very proud of it to this day.

"In this connection I wish to give the fullest and most

ample credit to two of my assistants—M. D. Woodford and John Thomas. These gentlemen were boys of fourteen when on the Erie Railroad with me. They then gave promise of their future brilliant careers. Mr. Woodford was sixteen years of age and in my office on the Erie when he accompanied me to the Michigan Central. Mr. Thomas joined us shortly afterward. Mr. Woodford is to-day president of the Cincinnati, Hamilton and Dayton system. Mr. Thomas, after having been general manager of the Baltimore and Ohio and of the Pennsylvania Central respectively is enjoying the evening of life in Cleveland, O.

"Mr. Woodford was born train dispatcher, as Paul Murphy was a born chess player. With a daring and confidence in my own judgment I almost tremble at now, I appointed that sixteen-year-old boy chief train dispatcher on that then great railroad. I alone knew him and his great possibilities. Within four days of the issuing of a new time table, he could from memory give the time of every train, passenger or freight, at every point mentioned on the table, and he frequently had every train on the road running on dispatcher's orders. The higher officials were badly scared at first. I was summoned before them and asked what I meant by trusting such tremendous responsibilities as the lives of hundreds of passengers and the safety of so much property to the guidance of a boy. I was obliged to use all my diplomacy. I knew they did not know his age, and that on a pinch he might pass for some years over sixteen, so I replied by asking them, 'If Napoleon at twenty-two could be a general, why a boy of twenty-one might not be a train dispatcher?'"

"This silenced but did not quite satisfy them. His brilliant and safe handling of the trains soon did that. Mr. Thomas was, next to Mr. Woodford, the best dispatcher I have ever known, and these youths kept such excellent supervision over the rest of the dispatchers that an accident was an unknown quantity.

"I forgot to mention that as the building of the line on the Hannibal and St. Joseph was just before the war, we had a good deal of trouble from the natives. That road was under the control of those who owned the Michigan Central, and when I was sent to build its telegraph line as quickly as possible, I asked President Brooks if he wanted a line to last thirty years or only five. He replied: 'Build it as quickly as money can do it.' I provided all material and built from Hannibal to St. Joseph, and had trains running by telegraph in forty-five days, which in those times was considered fast work—but they had to pay for it.

"The prejudice against us was so great among the people along the line that at some points I was obliged to pay \$2.50 apiece for oak poles not over four inches at the butt, cut them with my own men and pay for carting them to the line of road, over two miles away. There was a drouth that summer, and at many places the people got the idea that the telegraph line caused it, and our repairers were shot at a number of times while mending the wires which the natives had cut and torn down to break the drouth." Others declared the line was built by abolitionists (as it ran from Illinois at one end to Kansas at the other—both free States) so that the slaves might have a sure guide to freedom if they ran away. Mr. J. T. K. Haywood (the superintendent of the road) and myself were hung in effigy to a telegraph pole at one place, and threatened with lynching."

### Shorty's Shade.

When Edward Shroll, better known as "Shorty," died at St. Francis' hospital, at Columbus, Ohio, the Western Union lost a good battery man and the doctors, a typhoid fever patient.

Two night operators who had known the faithful man for years, were at his bedside when the Sickie of Death garnered its human harvest and while "Shorty," with the death sweat on his brow, held out his hands to his two associates the film dimmed his eyes, and the death rattle sounded in his throat before he could summon strength to bid them a last adieu.

"Shorty" was given a beautiful funeral, and in the eyrie on top of the Pioneer building, another man attended to his work.

When the cold clods covered the coffin, the lowering straps were removed from the grave and the cortege wound slowly cityward, the operators sighed and said "Shorty was a good man."

But now there has cropped out a story, that the spirit of the faithful worker has returned and has for several years been haunting the top floor of the old building that is now being torn down to make room for a modern skyscraper. The battery room is demolished, and what the night trick men want to know now, is "Will Shorty find the new place?"

The appearance of the shade is no joking matter, and the men who manipulate the key are loth to talk about their ghostly visitor. They have seen the shade and it has spoken. They do not attempt to explain the phenomena, nor to try to figure out the reason of the visits. It is enough to know that Shorty has returned and—that is enough.

If you ask one if he has seen the nocturnal visitor he will shiver slightly and probably evade the question; but if he tells the truth to you it will be that the question makes a strange, creepy, crawling sensation run along his spine. If he is joked about the matter, he will leave you abruptly.

The uneasy spirit was last seen on March 20. Will it come again?

High up on the top floor of the old Pioneer building the Western Union had its battery room and operating department, before the removal to their new quarters. It was a spooky place at best, and lonesome as a graveyard after the busy hum of the streets had died down. It was during these hours that Shorty attended to the batteries, always taking the same route of a night and working in a methodical manner. He always came in at a certain door, passed through the operating room, opened another door and got into the apartments where the batteries were located.

He was a single man, about 5 feet three inches in height, 38 years of age, had good habits, good disposition and good looks. He made friends with the men on the night trick, and when he died his loss was the occasion of keen regret and much sorrow. He had never talked on religious subjects or of the life beyond the grave. In fact he never seemed to give the future much thought.

He was slightly lame and walked with a halting gait. Of this, more anon.

He was steady, faithful and methodical, and his work was the same night after night.

He died some years ago, and two months after his demise, the shade made its first appearance.

The man on the night trick was at the switch board upon that memorable occasion, with his back to the door. The time was about 4.15 a. m., and only the scurrying of the rats in the timbers, and the click of the sounders broke the almost death-like stillness. There was no wind and when the door of the operating room opened slightly and a chill wind wafted across the room, the operators started and whirled about. "Shorty," or his shade, was coming in!

In speaking of the first visit the operator says: "A queer feeling came over me as I turned, and for

a long time afterward I said nothing about this strange—don't know what you might call it, appeared. I kept quiet fearing that I was laboring under a delusion. I waited for another appearance and this time I was not mistaken. Since then there have been from three to four visits a month.

"I cannot describe my feelings when I whirled as the door silently opened and then closed! Something, I do not know what, told me that the door was silently opening. Everything was still, and I saw 'Shorty' as plainly as I had seen him in life! He passed swiftly, with his familiar halting gait, and for a moment I was paralyzed. Cold chills ran down my back, yet I couldn't say I was afraid. I followed quickly to the battery room—it was empty. Then I came back to the board again and carefully went over the whole scene again. I need not tell you that my feelings were anything but pleasant! I thought perhaps that a hard night's work at the key had overwrought my nerves. Then I resolved to say nothing, but to await a second visitation. I further resolved, having known 'Shorty' so well in life to ask the shade—or whatever you've a mind to call it, the next time it appeared, 'Shorty,' what can I do for you?"

"A week or so afterward the door again silently opened and closed, and I experienced the same sensations as at first. Again I saw the familiar figure with its halting gait pass swiftly from the door, through the operating room and into the apartment where the jars were kept. Again I felt the indescribable chill—but I followed and asked the question I had formed. There was no reply and silently and swiftly the shade faded and was gone. Often since I have seen it and have asked the question. Only once have I heard a reply. That was (speaking my name) 'Hello ——!' I always experience the queer feeling when 'Shorty' comes and I always know when the door begins to swing on its hinges. What it is I cannot say! It is beyond me. The 'shade,' if it can be called that, always comes between 4 and 5 A. M. It makes no difference what the atmospheric conditions are. Heat and cold, storm and starlight, it is always the same; nor is the route ever changed. It is always the silent opening of the door, the glide to the battery room and then the dissipation. I do not believe in spirits, yet what have I seen? It is beyond me. I cannot solve the riddle! Had I seen it but once, I would have thought that it was but a case of overwrought nerves—but these frequent visits. I have no premonition of its coming until that chill and the opening of the door!"

Now that the battery-room is a thing of the past, where will the apparition go? Will the Shade of Shorty seek other fields, or will it wander in the dead of night looking for the familiar jars of old. Now that dynamos supply what blue vitriol, zinc and copper once did, will the Shade rest in peace?

This is no idle ghost story—no tale of a tombstone seen by the uncertain rays of a cloud obscured moon; no sheet flapping in the wind; but an apparition that has made regular visits for several years to a brightly lighted room. It is a case where the

story ceases to be a joke with the men who have seen it, and now since the force has been moved from the old surroundings, the men hope that the shade of "Shorty" will "requiescat in pace."

Is it electricity? Is it a spirit—What is it? Does the fluid control the spirits?

Have the subtle electrical currents of the air, earth and the chemicals made this thing possible?

The men have ceased to figure on the unknown.

### Squiberinas.

BY JOHN A. DREAMS.

"Mr. X.," said the chief sharply to an operator discovered away from his wire, "Squehannock is calling New York." "Oh, he often does that," was the laconic remark.

"Who got your No. 5?" was asked. "I can't say, there have been so many on this wire to-day with new-fangled signs that I don't know whether it was A1, B2, C9 or qui 9."

He had met with twenty incorrect "long" checks out of a possible twenty-five, and said disgustedly to his neighbor: "I don't believe counter clerks pretend to count long checks." "Nope; they just weigh 'em."

She approached the chief and said: "XZ has five money transfer messages. Shall I manifold them?"

It has been suggested that the introduction of a new form of service record blank will popularize among the ungodly the old hymn, "I Need Thee Every Hour."

### A Beehive Cable Box.

While wax is an insulator, honey would seem to be a pretty good medium for a short circuit, says an exchange. When A. P. Green, manager of the Postal Telegraph-Cable Company, at Chester, N. J., climbed up to the cable box on top of a 50-foot pole in front of his office a few days since looking for trouble, and opened the box, he found there a mass of buzzing bees, a "million of them," is the way he expressed it. A swarm of bees had taken possession of the box and were filling it with wax and honey. Mr. Green slammed the door shut and got down in record time. He immediately reported the matter to headquarters, and now the officials of the telegraph company were last reported trying to get some thick-skinned or fearless man to ascend the pole and fish out the bees and honey, for it is said that they have stuck the Chicago and St. Louis wires together.

In these days when technical knowledge is of such value to the telegrapher who would master his profession, its acquisition becomes of supreme importance. A subscription to TELEGRAPH AGE will supply the information every operator needs.

You need not tell all the truth unless to those who have a right to know it. But let all you tell be truth.—Horace Mann.

### Commercial Pacific Cable and the Government.

President Roosevelt announced at Oyster Bay on August 9 that he had granted the application of the Commercial Cable Company to land a Pacific cable on the shores of the United States and on the island possessions, subject to certain conditions. He also permits the use of the Government naval charts if the company accepts the grant.

The acceptance of the grant now rests with the cable company, and as the conditions imposed are different from those contemplated in the application, these will have to be considered by the officials of the corporation before anything can be done. The Government has placed so many restrictions about its offer that it cannot be said when the work of laying the cable will begin.

The President's announcement is in these words:

"The President, having duly considered the application, herewith consents that the company may lay, construct, land, maintain and operate telegraphic lines of cables on the Pacific coast of the United States and in the various territorial waters of the United States, to connect the city of San Francisco, the city of Honolulu, and by the way of the Midway Islands and the Island of Guam, the Island of Luzon, Philippine Islands, and a point on the coast of the empire of China not yet determined."

The President then enumerates that the Government shall have the right of way for messages at rates fixed by itself; that it shall have the right to take over the cable exclusively in case of war or other necessity, and that it may buy the cable at an appraised value—and adds the following additional conditions:

"That the company has not received any exclusive concession or privilege and is not combined or associated with any company or concern having such concession or privilege, such as would exclude any other company or concern formed in the United States of America from obtaining the privilege of landing its cable or cables on the coasts of China, or connecting them with other cable lines or inland lines of China, and said company, its successor or assigns, will not receive or become associated with a concern having any such exclusive concession or privilege. The said company has not combined or associated itself with any other cable or telegraph company or concern for the purpose of regulating rates between points in American territory or between them and any point in China, Japan or other Oriental places.

"That the company's cable shall touch at no other than American territory on the way from the United States to the Chinese Empire. The line from the Philippines to China shall be constructed by said company and operated independently of all foreign companies or concerns.

"That the rates to be charged for commercial messages shall be reasonable and in no case in excess of the tariff set forth in Congressional

Document No. 568, House of Representatives, Fifty-seventh Congress, first session, signed by George G. Ward, vice-president of the Commercial Pacific Cable Company, with proportionate rates for intermediate points.

"That all contracts entered into by the company with foreign Governments for the transmission of messages by the said cable shall be null and void when the United States is engaged in war.

"That the United States shall have authority to sever at discretion all branches which may be connected with the main cable line aforesaid during war or threatened war.

"That the operators and employees of the company above the grade of laborer, after the cable shall have been laid, shall be exclusively American citizens.

"That the company shall agree to maintain an effective speed of transmission over the main cable route from California to Luzon of not less than twenty-five words per minute.

"That the cable laid shall be of the best manufacture, and ample repair service for the cable shall be maintained.

"That no liability shall be assumed by the Government of the United States by virtue of any control or censorship which it may exercise over said line in the event of war or civil disturbance.

"That the consent hereby granted shall be subject to any future action by Congress or by the President affirming, revoking or modifying, wholly or in part, the said conditions and terms on which this consent is given."

### The Old Timers' Reunion at Salt Lake City.

The twenty-second annual reunion of the Old Time Telegraphers' and Historical Association and of the Society of the United States Military Telegraph Corps, will be held this year at Salt Lake City, Utah, the date being set for Wednesday, Thursday and Friday, September 10, 11 and 12. The headquarters of the visiting telegraphers in that city will be at the Kenyon Hotel, an excellent hostelry, conducted on the American plan, the charge being at the rate of \$2.50 per day and upwards. Members who expect to attend the reunion and who desire to secure hotel accommodations in advance, are requested to notify Mr. George C. Fenton, of Salt Lake City, chairman of the hotel committee, who will gladly undertake to arrange for rooms as may be required. As will be observed from the following programme, a pleasant round of entertainment, covering the three days of assemblage, has been arranged for the enjoyment of all who attend.

On the first day, Wednesday, September 10, at ten o'clock in the morning, the joint meeting of the Old Time Telegraphers' and Historical Association and of the United States Military Telegraph Corps will occur at the Kenyon Hotel. Half an hour later the business meeting of the Old Time Telegraphers' and Historical Association, will be held at the same place, followed at

half-past eleven o'clock by the business meeting of the United States Military Telegraph Corps. These brief, formal functions completed, the rest of the entire stay will be given over to the pleasures of the reunion. In the afternoon of the same day, at half-past two o'clock, a drive about the city will be taken. This will include a visit to Fort Douglass, to Salt Palace, and to the grave of Brigham Young. For the remainder of the day, according to the programme, the time will be given over to a "go-as-you-please."

On Thursday, September 11, at ten o'clock, a trip is projected to Saltair, on the Great Salt Lake. Here a day's outing will be had, the excursionists returning to the city at half-past six in the evening.

On Friday, September 12, the last day, an organ recital on the famous instrument at the great Mormon Tabernacle is announced for half-past ten o'clock. At the same time an opportunity will be given for an inspection of the temple grounds, which are very beautiful. At a quarter of one a trip to Ogden has been planned, going over the Oregon Short Line. A drive through the interesting Ogden Canyon will immediately follow, returning in season to catch the train due at Salt Lake City at a quarter to six. In the evening a banquet will be given at the Kenyon Hotel. This will be a subscription affair, tickets for which have been placed at \$2.50 apiece. It is proposed to make this a most delightful social event, a fit ending of the three days of festivity.

It is believed that a large Eastern delegation will attend the reunion. All are anticipating much pleasure from the trip, which will carry the majority to a section of the country never before visited and which abounds in scenery the most attractive.

The party from New York will leave on the evening of Friday, September 5, going by the way of the Delaware, Lackawanna and Western to Buffalo, the Wabash to St. Louis or Kansas City, the Missouri Pacific to Pueblo and thence by Denver and Rio Grande to Salt Lake City, arriving on Tuesday, September 9.

It is expected that delegations from San Francisco, Los Angeles, Seattle and other places on the Pacific Coast will be present as well as a large attendance from Chicago and all central points.

The Old Time Telegraphers' Association ought to raise its age limit. At the present time a person who has been in the telegraph service twenty years is eligible to membership. This makes it possible for a telegrapher entering the service as a messenger boy at ten years of age, to be eligible to membership in the association when he has attained his thirtieth year. The result is that the organization is rapidly becoming a "Young Time Telegraphers' Association." The question of raising the age limit to twenty-five or thirty years instead of twenty years, as at present, has been brought up at previous reunions. It may be well for the members to be prepared to take some action on the subject at the Salt Lake meeting next month. The officers of the association have ex-

pressed an opinion that the age limit ought to be raised and the secretary, Mr. John Brant, in his report submitted at the Montreal Convention last year used this language: "In scanning the applications for membership during the year last past, your secretary has been impressed with the youthfulness of many of the applicants, and, after mature consideration, has reached the conclusion that if this organization is to be known as 'The Old Time Telegraphers' Association' it will be necessary to make the eligibility limit twenty-five or thirty years' service, instead of twenty, as at the present time."

### No Let Up in the Big Sale.

From all over the country, from Canada and from Europe, we are receiving the kindest and most enthusiastic expressions of approval of the "Pocket Edition of Diagrams and Complete Information for Telegraph Engineers and Students." The sale during the past two months, since the volume was first put on the market, has been simply phenomenal in its magnitude. Never before has the subject of telegraphy in all of its aspects, been so thoroughly and clearly treated. The volume has all of the interest of a well-told story, and any operator reading the book gains at once a more comprehensive and all-around practical acquaintance with his business than he ever before possessed, or probably dreamed of possessing. Mr. C. T. Sydnor, of the Postal Telegraph-Cable Company, Richmond, Va., well voiced the opinion of many when ordering a number of copies for customers recently, he laconically remarked: "This looks like the right stuff;" and another: "The finest book of the kind I ever ran across." Its value as a work of reference has been recited to us again and again, and hundreds of managers say that it is the one book needed by them as an aid in running their offices.

Mr. J. P. McCabe, the night manager of the Western Union Telegraph Company, Cincinnati, O., has already found an excellent market for the book in the "Queen City of the West." The sales at that point alone have already amounted to nearly fifty copies. From Canso, Nova Scotia, where ten of the books have recently gone, down through Montreal, Quebec and Toronto, in Canada, to Seattle, San Francisco and Los Angeles on the Pacific Coast, extensive sales have been made in all the larger cities of the country, Dallas, Tex., not to be behind in the procession, taking over twenty books. St. Paul in the North over thirty and St. Louis, as a hub to the great wheel, over sixty, while Chicago, its near neighbor, as many more. And really it may be said that the sale has but just commenced.

Mr. Patrick B. Delany, of South Orange, N. J., the well-known electrical engineer and inventor of automatic multiplex telegraph systems, writes: "Your book of diagrams is at once a time and a trouble saver. It affords a safe starting point for all further investigation in systems and currents."

It will also be remembered that Mr. J. C. Barclay, the electrical engineer of the Western Union Telegraph Company, New York, in a recent commendatory letter, said: "It conveys the best practical insight into the proper equipment of an up-to-date telegraph office; and even familiar as I am with all telegraph minutiae, it has served to refresh my memory on many important points, and proved a valuable reference;" while Mr. Francis W. Jones, the electrical engineer of the Postal Telegraph-Cable Company, New York, writing with all the enthusiasm of his contemporary, states: "It is an excellent book and shows the author's familiarity with the subject discussed, no detail apparently escaping him. I have found the book of practical value, and it must necessarily prove of great benefit to the operator, for it conveys the right kind of information in a very full and clear manner. The diagrams are splendid."

#### **Pocket Diagrams and Bookkeeping Methods.**

EDITOR TELEGRAPH AGE:

I would suggest that you start in your valuable paper a series of articles explaining systems of bookkeeping, forms of reports, etc., in use by the Western Union and Postal Telegraph companies. Such a series would, I think, be very much appreciated by your readers, the large majority of whom, probably, are employed in the operating departments, and have no chance to get posted on bookkeeping methods.

Were a series of articles of this kind published in book form after their appearance in TELEGRAPH AGE, such a volume taken in connection with your Pocket Edition of Diagrams would enable almost any intelligent telegrapher to take charge of a telegraph office. Better still, were the contents of both books combined in one volume it would be the most valuable work in the telegraphic world to-day, and would, I believe, have a large sale. Yours truly,

A SUBSCRIBER.

Milwaukee, Wis., Aug. 2.

#### **New T. M. B. A. Agents.**

The Telegraphers' Mutual Benefit Association of New York has recently appointed new agents as follows:

Mr. Frank T. Viles, of the Western Union Telegraph Company, Boston, Mass., for that city and vicinity, vice S. W. Eldridge, resigned.

Mr. J. A. Pferd, of the Western Union, Buffalo, N. Y., for that city and vicinity, vice J. W. Tillinghast, resigned.

Mr. G. M. Brigham, of the Western Union, Toledo, Ohio, for that city and vicinity, vice T. H. Harper, resigned.

Mr. J. L. Currier, of the Western Union, Fort Wayne, Ind., for that city and vicinity, vice M. E. Tuttle, resigned.

Mr. John Fahey, manager of the Western Union, Bangor, Me., for that city and vicinity, vice C. E. Bliss resigned.

#### **LETTERS FROM OUR AGENTS.**

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

#### **KANSAS CITY, MO., POSTAL.**

Charles C. Holloway, formerly of this office, but now connected with a newspaper at Butte, Mont., was called here recently on account of the death of his little daughter.

Bryant W. Fields, all night chief, was married to Miss Very Paget, at Topeka, Kan., on April 14. The marriage was kept secret until a short time ago, when Mr. Bryant announced it to his associates at the office, and then left for a wedding tour in the East. He has since returned and received the congratulations of his many friends here.

Mr. Moore and Mr. Tobin were sent to St. Joseph on July 21 to assist Manager Brinson in handling telegraphic matter at the Democratic state convention, which met in that city on July 22.

G. E. Whitaker is away on vacation.

#### **WASHINGTON, D. C., POSTAL.**

No office mourns more sadly the death of our beloved and esteemed president, John W. Mackay, than the Washington Postal, and its employes. When the sad news reached us our building was immediately draped in mourning as a mark of our last sad respects.

In the past two weeks this office has undergone a considerable change in its official personality owing to recent promotions. Mr. W. J. Slater, formerly our chief operator, has been promoted, and on August 1 assumed the management of the Louisville, Ky., office, the fact being given much prominence in the local daily papers. Mr. Slater deserves all the credit and praise attributed to him for ability and for special achievements here during the Spanish-American war. His departure was regarded with mingled feelings of regret and pleasure. Regret, that our close and friendly relationship was severed, and pleasure, because merit has been recognized and rewarded. We extend our heartiest congratulations to him, and to the Louisville office, in securing his valuable services, which we know will be readily recognized, and highly appreciated. Mr. Slater was given a delightful surprise by the employes in the presentation of a handsome gold watch chain, and a masonic charm, set with a diamond. The back of the charm bore this inscription: "Presented to W. J. Slater by the employes of the Postal Telegraph-Cable Company, Washington, D. C., July 26th, 1902."

Mr. John D. Prosser, formerly traffic chief, succeeds Mr. Slater as chief operator. Mr. Prosser is a man of ability and extensive experience and has been especially valuable to the company in many ways, and is well fitted for the position to which he has been promoted.

Mr. J. D. Trunnell, formerly assistant traffic chief, succeeds Mr. Prosser as traffic chief. Mr. Trunnell is also a man of experience and executive ability and is well known to the fraternity.

Mr. W. R. Cole, formerly an operator in this office, succeeds Mr. Trunnell as assistant traffic chief.

The operating force, appreciating these merited promotions of old associates, desires to express its thanks to the higher officials for their wisdom shown in these selections.

Mr. Fred Hohbein, a first-class telegrapher from this office, has been appointed by the Government as operator at the White House.

Mr. H. C. Wooden, operator at the Howard House branch, who has been seriously ill for some time, is now steadily improving, after having undergone several surgical operations.

Mr. R. S. Waters is with us again after an extensive stay in New York City.

#### INDIANAPOLIS, IND., WESTERN UNION.

Messrs. L. McKissick, the electrician of the company; V. T. Kissinger, assistant electrician, and D. R. Davies, superintendent of construction, all of Chicago, together with J. H. Flynn, electrician of the Western Electric Manufacturing Company, spent a few days in Indianapolis lately.

Edward Heid of the check force has been promoted to the position of operator and assigned to duty at the branch office at the Atlas Engine Works.

Arthur Crane, who has held the position at the Atlas Engine Works branch for the past two years, has been transferred to the main office.

George Farquahr is on leave of absence.

Ralph Scorah was recently detailed to Bloomington, Ind., for a few days, relieving the manager at that point.

Charles Newsom, of the Terre Haute local, has been promoted to be assistant traffic chief. His ability and popularity make him undoubtedly the right man in the right place.

Arrivals: David Connors, R. E. Scorah, A. S. Longnecker, N. M. Kent and H. R. Ireland.

Departures: J. E. Ikerd, W. B. Goshorn and J. E. Mendelson.

Harry B. Walker, on account of failure in health, was compelled to resign his position and seek employment in a climate more suitable to his physical condition. His many friends here were sorry to have him leave, and wish him success wherever he may go.

#### MONTREAL, QUE., GT. NORTHWESTERN.

We were very much grieved over the sudden death of our beloved comrade, William H. McGilton, aged 19 years. Our heartfelt sympathy is extended to his bereaved relatives.

The new copper wire between Montreal and Boston has been quaded and works admirably.

Beautiful brass electric lamps have been placed in the operating room, and add greatly to its attractiveness.

Mr. E. Pope, superintendent; James Barclay, chief operator, and Thomas Meadley, night chief, all of Quebec, were late visitors.

William Robinson is on the extra list.

Miss Ada Beck is absent visiting.

Frank Hall has returned from a pleasant vacation to Iroquois.

Hugh Lyle and H. A. Johnson are the latest additions to our staff.

A. L. Ross is in a broker's office again, only working half trick here.

William Lappin has resigned.

Miss Beaudoin is on the sick list.

#### BOSTON, MASS.

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

#### WESTERN UNION.

C. W. Henderson, ex-manager, has begun duty as an operator on the northern ways at \$75 per month.

James F. Gormley, partner of the late "Billy" Blanchard, on the recently abandoned New York printer, has been pensioned by the company at \$50 a month.

#### PHILADELPHIA, PA.

My motto—Honorable dealing. D. A. Mahoney, Western Union Telegraph Company, Philadelphia. Special representative Philadelphia Typewriter Exchange. All makes, new and remodeled typewriters. Fifty-one operators between Philadelphia, Pa., and Savannah, Ga., either renting or buying typewriters from me. The goods, prices and terms are right. Agent for 1902 Model Alexander word-register. Wire or write me. It will be to your interest.

#### WESTERN UNION.

Mr. J. H. Daily, a popular member of the operating department, was married, June 27, to Miss Laura Oberlies, of this city. While this announcement is somewhat tardy, his host of friends unite with TELEGRAPH AGE in extending congratulations and good wishes.

Charles Schmidt, an old and faithful employe of this company, resigned recently to accept a position with a broker firm, and our congratulations go with him.

Miss Megonigle has also resigned, and is now located with a cotton firm. Other resignations are: Messrs. Auerbach, H. Condon and Daniel Toland.



H. Dalby is relieving Manager Shriener, of the West Philadelphia branch office, who is taking a ten-day vacation.

Miss Gertie Fitzgerald, manager at Tyrone, Pa., accompanied by Miss Mamie Kehoe, of Hot Springs, Va., were recent visitors.

Mr. A. P. Sell has been assigned to special duty in Manager Reed's office.

Broad Street station branch office is now a thing of the past, having been closed. The manager, Mrs. DeGinther, and her assistants are now in the main office.

#### POSTAL.

After an absence of over twenty years from the service of the American District Telegraph Company, Mr. Daniel A. Toland has been re-enrolled and placed in charge of the new branch office in the Arcade Building, with Mr. Albert Goldberg as assistant. He is enjoying a good business.

After a month of competition in the Pennsylvania Railroad Broad street station, this company now has the exclusive privilege of handling the telegraph business done from that place.

General Superintendent C. C. Adams, of Atlanta, Ga., was a delighted as well as a welcome visitor recently.

Mr. C. C. Figg's trip to the metropolis, though successful, was of short duration. He returned home at the urgent request of his parents.

Night Manager John A. McNichol, accompanied by his wife and family, are off to the mountains for a pleasant summer sojourn with relatives.

Home attractions being no longer resistable, Mr. Walter A. Wells, tendered his resignation to go to Goldsboro, N. C., where he expects to remain a short while before going West.

Mr. Samuel Lewallen, of the main office, and Mr. Joseph J. Beasley, of the Broad street station office, were off on enjoyable vacation trips.

Among others away on recreation and pleasure we noticed Mr. Robert Robinson, formerly with this company at Lancaster, accompanied by his wife, son and brother, who have gone to Atlantic City.

Manager E. E. Greene, of Conshohocken, was a caller at the Broad street station office on a recent evening.

Mr. Frank Burns, of the tenth district American District Telegraph office, desires to express his sincere appreciation of the many marks of kindness shown by the Messrs. Fitzgerald and all other American District Telegraph employees concurrent with the death of his brother, John J. Burns. The deceased was connected with the burglar alarm and construction department for a number of years. His funeral was largely attended.

Mr. E. M. Love is among the latest arrivals.  
SEATTLE, WASH., WESTERN UNION.

Superintendent T. W. Goulding took formal charge of the Second District, Pacific Division, with headquarters at Seattle, on July 1, taking up temporary quarters with Manager Hockett, pending the arrangement of a permanent office.

Night Chief H. R. Sanderson is acting chief clerk to Superintendent Goulding, with M. F. Power as stenographer. P. A. Cook relieves Mr. Sanderson, and L. Wheeler takes his place on the floor as traffic chief.

Mr. James S. Fagan has been appointed manager at Vancouver, B. C., to succeed Mr. Goulding, promoted to superintendent of the Second District.

Arrivals: Walter A. McLean, John McDonnell and A. Z. Washburn.

Departures: J. H. Johnson, to a broker's office at Milwaukee, Wis., and E. C. Warren, to the Western Union at Cincinnati, O.

Alexander Frazier, of the St. Louis office, is enjoying his vacation on Puget Sound.

#### LAKE CHARLES, LA., POSTAL.

A. O. Boudreaux is still manager at this point, having been here for the last four years. Mr. Otis Marsh, operator, is a new arrival. Miss Hannah Hoffman is now cashier, and Walter Favorite and James Tucker, messengers. The office has been renovated and put in excellent order. Mr. S. Cropper, formerly of this place, is now manager at Port Arthur, Tex.

#### LOUISVILLE, KY., POSTAL.

It is with the deepest regrets that we part with our long faithful manager, Mr. P. H. Cooke, who left August 1 to enter other fields of work. Mr. Cooke is a New Yorker by birth, but came to Kentucky in the seventies and has held several prominent positions in the telegraph fraternity since, being connected for a time with the old Baltimore & Ohio Telegraph Company, also wire-chief of the Western Union Telegraph Company for a number of years, leaving that company to accept the managership of the Postal at the time of its founding in Louisville. He has been a painstaking and enterprising manager, and much of the excellent success achieved by the Postal in Louisville is due to his untiring zeal and congenial association among the business men of the city. We hope that the success which has attended him here may characterize all of his future undertakings. The main-office employes presented him with a beautiful gold-diamond watch fob upon his retirement; the branch-office employees also made him a gift of a gold fountain pen, in acceptance of which he posted the following under date of July 31, addressed to his "dear friends":

"I thank you for your beautiful present, which reminds me this morning that our long association has come to an end. I appreciate your kind words and the manifestations of affection that you have always shown me in so many ways. If I have at times seemed unnecessarily severe I ask your forgetfulness now. Certainly no other manager was ever surrounded by a staff so considerate and so willing. I thank you also for the uniform obedience to my wishes, which has made the local service so excellent."

Mr. W. J. Slater, who comes from Washington, D. C., to succeed Mr. Cooke, we are glad to

welcome to Kentucky and hope that all his efforts will be crowned with success equal to that of his predecessor.

We are glad to see John Benninger back to work, who returns after a long spell of sickness; also J. A. Cahoe, who has been confined to his home several months with a severe attack of typhoid fever.

T. B. Cahoe, of the Memphis office, was a recent visitor.

### NEW YORK CITY.

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

### WESTERN UNION.

A. W. Rittenhouse, an expert stenographer and operator, has been absent a month helping out at the Messrs. Roebing's Sons Company in this city.

Assistant Manager T. Brennan has just returned from a two week's outing at the sea shore.

Traffic Chief John B. Hurd has returned from his vacation.

Patsy Ferreter, who went to his old New England home to seek restoration of impaired health, is reported to be a very sick man. He was at one time known as one of the best all-round operators in the office.

Mr. R. Pfund, for many years connected with the telegraph service in this office, is to-day considered one of the best authorities on wireless telegraphy, and it is this gentleman who has charge of the wireless telegraph expedition now establishing stations in Alaska for the United States Government.

Mr. R. W. Chapman, chief bookkeeper of the Western Union Telegraph Company, Chicago, Ill., for the past fifteen years, has accepted a similar position here, vice J. W. English.

Mr. J. W. English, chief bookkeeper of the Western Union Telegraph Company, has resigned his position, but it is understood that he will re-enter the service of the company after his return from a month's sojourn in the country.

Mr. B. Brooks, general superintendent of the Eastern division of the company, since his assuming office on June 1 has, it is said, visited every large office in the division.

### POSTAL.

Manager Charles Shirley and family are at Lake George.

Night Chief E. A. Coney, Fred Zeiss, eastern night chief, and Miss Avis Gibney are absent on vacations.

Chief E. J. Rankin returned lately from a week's fishing trip in the Adirondacks.

Night Chief Geo. Blank is back from a week's outing on Long Island.

Mr. Robert Mitchell has lately been away on a four weeks' vacation at his home in London, Ontario.

Charles Morrell, night city chief, has returned from a western trip.

E. J. Liston has been transferred to a 7 a. m. trick, and Mr. E. J. Stevens to the second Philadelphia bonus wire.

Isaac Naftal has resigned to enter other business.

Mr. T. J. Donovan, manager of the 154 West street branch, having requested to be relieved on account of heavy increase in business in his other downtown offices, A. Waldman has been appointed to succeed him. J. H. Cornell has been appointed manager of the office at 45th street and First avenue. Business at the Washington Market and 74 Cortlandt street branches has largely increased since the opening of the new offices on the Pennsylvania Railroad to the farming and coal mine region. This has necessitated the cutting in of a new Philadelphia wire at Washington Market.

Some time ago, when the Commercial Cable Company ceased to operate the land lines from its main office to the more important points of the United States and turned them over to the Postal Company, the office at 20 Broad street was removed to the basement of that building. This was accomplished at short notice, Manager Samuel E. Ostrum being equal to the emergency. The business since that date has very materially increased, the equipment of the office has been perfected, and a large staff is now regularly employed. While everything is working smoothly, it would be vastly more agreeable if the office was more suitably and pleasantly located; that is, from the staff's point of view, and they are the people who do the work. The appointments of the office are totally inadequate for the present large force. The office is now open day and night. It is to be hoped that some measures of relief of the staff will soon be undertaken. In addition to the cable business there are 2,500 to 3,000 commercial messages handled daily. A corps of fifty messengers is at times found to be insufficient for the requirements of the financial district, in which this office is situated.

The personnel of the office is as follows: Manager, S. E. Ostrom; J. J. Davis, assistant; chief operator, F. B. Cox; I. I. Donohue, assistant; night chief operator, T. Sullivan, and all-night chief operator, R. W. Stimers. There is a staff numbering nearly fifty, among whom may be

mentioned, James Glover, William Ward, Michael Landy, James Tillou, John Newman, Charles Kennedy, A. G. Williams, T. Miller, Samuel Cutler, W. McEwen, P. Harrison, T. F. Leen, T. S. Murphy, E. H. Hughes and Messrs. Jacobson, King, Christian, Hayden, Roff, Johnson, Taylor, Stauffer, Helgans, Cummings and others.

#### CHICAGO, ILL., WESTERN UNION.

Mrs. Ida Palmer, who has been very ill, is said to be improving.

Miss Kitty Kellar was called suddenly to her home in Pittsburg, Pa., on account of the serious illness of her mother.

Charles Lowenthal was recently taken to the hospital, where he has successfully undergone a series of painful operations.

Samuel Lowenthal has resigned to enter other business.

Mr. Edward Lavery, who works the Milwaukee local, was married on July 7.

William Wilcox is the happy father of a son.

Frank Titus, lately of Maumee, Ohio, recently paid us a flying visit. He reports the other Chicago boys, Ray Finley and Nelson White, who are located there, as doing very well.

Harry Church also made us a brief call coming from Council Bluffs, Iowa., where he is in the employ of the telephone company. He was here long enough to leave an order for Willis Jones' new book, however.

A much needed vacation has been granted Miss A. E. Rogers, who goes to Michigan for a few weeks. Miss Rogers is undoubtedly one of the best of lady operators, her fine pen copy being well known and admired in this city.

Mrs. John Walker, another excellent operator, has taken up her abode on the North Side.

Gordon Parker, the industrious Cedar Rapids operator, spent a few days in Minnesota. He is the proud owner of a nice farm up there.

"Dot" McCracken is away on a leave of absence.

Miss Carolyn Haggard, of the city lines department, who was a great favorite here, was married on July 12 to Mr. John Bell Elwood, a prominent civil engineer of this city.

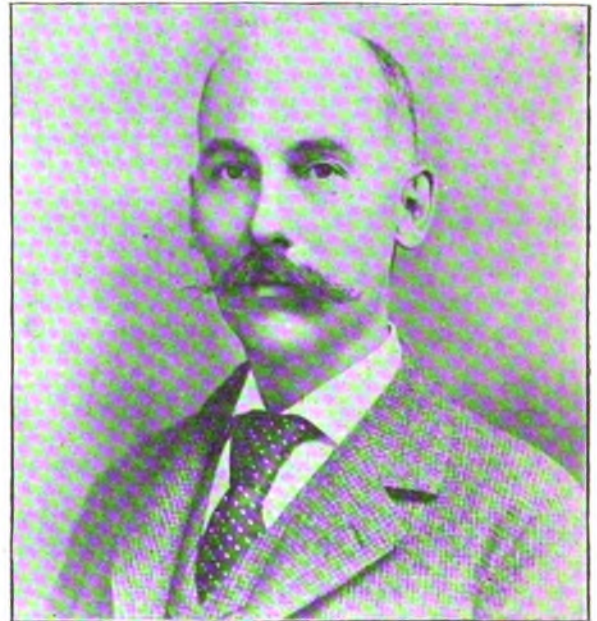
#### The Municipal Electricians.

The International Association of Municipal Electricians will hold its annual convention at Richmond, Va., on October 7, 8 and 9. Mr. Frank P. Foster, of Corning, N. Y., is the secretary.

It has been decided to appoint a superintendent of the Fire Alarm Telegraph system of New York City, and the Civil Service Commission has been asked for an eligible list of electrical and telegraph engineers from which to make a suitable selection. Commissioner Sturgis has the matter in charge. The fire alarm system in the City of New York was a separate bureau up to 1898, when it was placed in charge of the chief of the fire department. The civil service examination of applicants will take place on August 20.

#### New Superintendent at Boston, Mass.

Mr. Charles E. Page, who has just been appointed superintendent of the Western Union Telegraph Company at Boston, Mass., was born near Adams, N. Y., December 25, 1849, and learned the telegraphic art in Belleville, N. Y., in 1869, while employed as clerk in a country store. He took charge of the office after four weeks' instruction. The town was about to lose its telegraph connection on account of the office not paying expenses, and young Page was prevailed upon by the business men of the place to learn the art. After serving the old Montreal Telegraph Company three years at Belleville, he was in 1872, appointed assistant agent and operator for the Rome, Watertown and Ogdensburg Railroad, at Camden, N. Y. In 1873, he entered the



CHARLES E. PAGE.

New Western Union Superintendent, at Boston, Mass.

service of the Western Union Telegraph Company at Utica, N. Y., and worked as operator at different points until 1878, when he was appointed manager for the Atlantic and Pacific Telegraph Company, at Peoria, Ill., and in 1879 he was transferred to the Cincinnati office of the same company, and assigned to the position of night manager. When the American Union Telegraph Company opened its office in Cincinnati, Mr. Page was chosen manager, and served the company in that capacity until the consolidation with the Western Union Telegraph Company, when he was transferred to the latter as cashier of the Cincinnati office. One year later, he was advanced to the position of manager, and at the same time was appointed transfer agent for the seventh district central division, which position he has occupied until his present promotion. Mr. Page has the reputation of being one of the brightest managers in the United States.

### Wireless Telegraphy.

Captain Bernier, the famous explorer, who is to go in quest of the North Pole, will establish Marconi wireless telegraph connection between his party and Dawson. The Marconi system is to have an instrument in full sympathy in Dawson, and news of the progress of the expedition will be sent from the front back to Dawson, thus keeping the world informed of the fortunes or misfortunes of the party.

### The Railroad.

Mr. E. H. Millington, of St. Thomas, Ont., has been appointed superintendent of telegraph of the Michigan Central Railroad Company, to succeed E. E. Torrey, at Detroit, Mich.

"Wireless Telegraphy," by Richard Kerr, F. G. S., with a preface by Sir W. H. Preece, is a book just off the press, which is meeting a very wide sale, the subject treated being uppermost in the minds of the public at the present moment. This work, which comprises 116 pages, contains a good account of the discoveries in telegraphy without wires. The subject matter is arranged in readable form, the illustrations are excellent, and the descriptions of the experiments are accurate. Copies may be had at 75 cents each by addressing J. B. Taltavall, Telegraph Age, 253 Broadway, New York.

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

### TRANSMITTING A PLEASURE.

## Roger's Portable Key Base.

A Telegrapher's Necessity.

Handsomest, speediest and best key ever made; use on any wire; any position; instantly connected or detached; eliminates fatigue; lost grip relieved.



"It's all you claim."—J. S. Strachan, night chief operator New York Associated Press.

Price \$3.25; Full Nickel \$3.75.

A. B. Rogers' mfr. 144 West 109 St.,

### IMPORTANT TO YOU

J. S. TOWNSEND—The Telegraphers' Jeweler, 1554 Wabash Ave., Chicago, offers any article in his elegant stock at net wholesale prices. A rare opportunity. Any watches or jewelry advertised can be bought at a lower price from this well known firm.

J. S. TOWNSEND, 1554 Wabash Ave., Chicago.  
Our 400-page catalogue sent on application.  
Agents wanted. Established 1877.

**Typewriters for Telegraphers.** The Philadelphia Typewriter Exchange, of Philadelphia, is the oldest, largest and best equipped house in Pennsylvania for supplying all makes of reliable typewriters. Machines rented or sold on easy payments. Special terms to members of the O. R. T. and O. C. T.

D. A. MAHONEY, Special Representative,

Operating Dept. Main Office Western Union Telegraph Company, PHILADELPHIA, PA.

For Sale.—Handsome galvanometer and Rheostat, cost \$150. Having no further use for it will accept any reasonable offer. Address "Kerner," TELEGRAPH AGE.

Time and labor saved by using Reservoir Pens—non-blotting, latest patent. You can write 500 words with one dip in ink well. 25 cents a dozen. Write to-day, Russel Pen Co., 6608 Ellis Ave., Chicago, Ill.

### Gold and Stock Life Insurance Association.

At the special meeting of the Gold and Stock Life Insurance Association, New York, June 23rd, adjourned to July 21st, the amendments to the by-laws, including graded rates, as follows, for new members,

Between 18 and 30, 50 cents per month,  
Between 30 and 35, 60 cents per month,  
Between 35 and 40, 75 cents per month,  
Between 40 and 45, \$1 per month,

and as recommended at the last annual meeting, were adopted to take effect January 1st, 1903.

## THE TELEGRAPHERS' FRIEND.

The 20th Century Telegraph Key  
POSITIVELY CURES  
and prevents Loss of Grip.

Makes fast sending Easy.

Send for Booklet and Net Prices

E. S. RUSSELL, General Agent  
253 BROADWAY, NEW YORK.



Send for Net Prices

## TAKE TIME BY THE FORELOCK.

Dont' wait until sickness overtakes you before trying to get you life insured.

### Telegraphers' Mutual Benefit Association.

Insurance \$500, \$1,000 or \$1,500.

Assessment rates graded according to age and adjusted to income no matter how small.

Further particulars from agents or

M. J. O'LEARY, Sec'y, P. O. Box 510, New York



**What the I. C. S. Did for Me**

Two months after I took up the I. C. S. training, I received an increase in salary. Aside from this, the satisfaction I am getting from my Course is worth a hundredfold what it cost me. I firmly believe that any one who can read will be benefited by I. C. S. training, as my early education was limited to common schools, and still I have mastered studies that I have never seen before.

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

**What the I. C. S. Will Do for You**

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

**DO IT TODAY**

INTERNATIONAL CORRESPONDENCE SCHOOLS  
Box 883, SCRANTON, PA.

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

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

Occupation \_\_\_\_\_

Name \_\_\_\_\_

No. \_\_\_\_\_ St.

Town \_\_\_\_\_ State \_\_\_\_\_

Headquarters Established 1869

**Rogers Manifold and Carbon Paper Co.,**  
MANUFACTURING STATIONERS.  
No. 75 MADEN LANE, NEW YORK.

MANUFACTURERS OF SUPERIOR  
**CARBON PAPER**  
-----FOR-----

Stylus, Pencil, Pen and Typewriter Use.

All kinds, colors and sizes on thin, medium and heavy paper for all purposes. Large Stock. Large discount. Orders filled promptly.

ALSO MANUFACTURERS OF  
**TYPEWRITER RIBBONS**  
FOR ALL MACHINES

Superior quality, woven edge, Gold Tips. Send for price lists. Also for Manifold Papers and Books, Stylus, Duplicating Books, Oil Boards, Train Order Books, etc.

**Lockwood's Electricity, Magnetism and Electric Telegraphy.** practical guide for operators. 376 pages, 152 illustrations. Price, \$2.50, expressage prepaid Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.

THE TELEGRAPH AGE deals in all kinds of electrical books. Send for price list.

**PRICES REDUCED FOR 60 DAYS.**

\$4.00 Vapor Bath Cabinet **\$2.25** each  
\$5.00 Quaker " " **2.50** each  
\$10.00 " " " **6.10** each  
\$1.00 Face & Head Steam. Atch. **65c**  
Quality best. Guaranteed. \$2. Book Free with all "Quakers." Write for our New Catalogue, special 60-Day offer. Don't miss it. Your last chance. New plan, new prices to agents, salesmen, managers. Wonderful sellers. Hustlers getting rich. Plenty territory. World M'g Co., 97 World Bldg., Cincinnati, O.

**The Telegraph Chronicle**

is the only telegraph newspaper published in England. All who wish to know what is going on in the British Postal Telegraph Service and to keep abreast of the progress of technical improvements in telegraphic apparatus and methods, should subscribe to the

**TELEGRAPH CHRONICLE**

Published fortnightly at 129 Peppys Road, London, S. E. Subscription, post-free, Five Shillings per Annum. The TELEGRAPH CHRONICLE is the organ of the Postal Telegraph Clerks Association, the most powerful organization of telegraphers in the world.

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. Taltavall, Telegraph Age, 253 Broadway, New York.

**NOW IS THE TIME . . . TO SUBSCRIBE FOR . . . TELEGRAPH AGE**

**TELEPHONES.**



**FOR**  
**SHORT LINES**  
**LONG LINES**  
**PRIVATE LINES**  
**EXCHANGE LINES**  
**ETC., ETC., ETC.**

ALL INSTRUMENTS ARE EQUIPPED with celebrated "Standard" Transmitters, which have no equal for talking and lasting qualities and are considered by experts and telephone users to be the best transmitters upon the market

Write for Prices. Goods shipped Promptly.

Address:

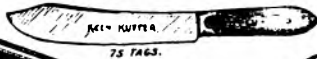
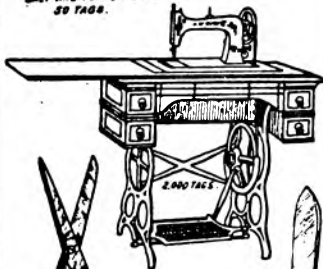
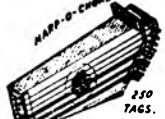
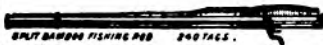
**STANDARD No. 8 AND ELECTRIC COMPANY**  
**MADISON, WIS.**

TRADE MARK STICKERS FROM 'FIVE BROTHERS' PIPE SMOKING TOBACCO ARE OF EQUAL VALUE WITH TAGS IN SECURING PRESENTS.

# FREE FOR TOBACCO TAGS

NOV. 30<sup>TH</sup> 1902.

NOV. 30<sup>TH</sup> 1902.



FROM  
**"STAR"**  
**"HORSE SHOE"**  
**"SPEARHEAD"**  
**"STANDARD NAVY"**  
**"J.T."**  
**"PIPER HEIDSIECK"**  
**"BOOT JACK"**  
**"DRUMMOND" NATURAL LEAF**  
**"OLD PEACH & HONEY"**  
**"NOBBY SPUN ROLL"**  
**"JOLLY TAR"**  
**"E. RICE GREENVILLE"**  
**"GRANGER TWIST"**

2 Granger Twist Tags being equal to one of others mentioned.  
**"GOOD LUCK," "CROSS BOW," "OLD HONESTY,"**  
**"MASTER WORKMAN," "SICKLE,"**  
**"BRANDYWINE," "PLANET," "NEPTUNE,"**  
**"RAZOR," "TENNESSEE CROSS TIE,"**  
**"OLE VARGINY."**  
*Red Tin Tags from Tinsley's 16 oz. Natural Leaf and W. N. Tinsley's picture tin tags are also good for Presents.*

TAGS MAY BE ASSORTED IN SECURING PRESENTS.  
 OUR NEW ILLUSTRATED  
**CATALOGUE OF PRESENTS**  
**FOR 1902**

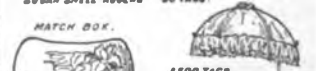
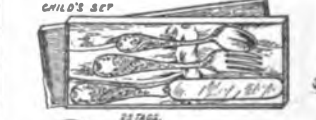
Includes many articles not shown here. It contains the most attractive List of Presents ever offered for Tags, and will be sent by mail on receipt of postage—2 cents.

Our offer of Presents for Tags will expire Nov. 30th, 1902.  
 CONTINENTAL TOBACCO CO.

Write your name and address plainly on outside of package containing tags, and forward tags by registered mail or express prepaid. Be sure to have your package securely wrapped, so that tags will not be lost in transit.

Send tags and requests for Presents (also requests for Catalogues) to

**C. Hy. BROWN,**  
 4241 Folsom Ave.,  
 ST. LOUIS, MO.



# IF OPERATORS would avoid and cure that dreaded affliction



## Telegraphers' and Writers' Cramp

They should use



## Barclay's Paralysis Exerciser

It will strengthen the relaxed cords of the hand, wrist and arm; will arrest and cure all cases of paralysis and cramp of years' standing; also stiff joints caused by accident.

### No Telegrapher Should be without One.

This simple and durable device is the only one that is reliable and trustworthy, and has always done all that has been claimed for it. There are no complicated parts to get out of order, and with ordinary usage it will last a lifetime. The directions for use are easily followed:—Place the Exerciser on the hand as shown in cut. Press the bulb for 10 or 15 minutes at a time or until the hand becomes tired. In cases where the paralysis is of long standing the Exerciser can be kept on the hand. This keeps the fingers in position and prevents them from cramping while writing. In case of feeling the paralysis coming on, use the Exerciser for 10 or 15 minutes and it will relieve the bad feeling.

THE PRICE OF THESE EXERCISERS IS \$3.00.

Address: J. B. TALTAVALL, Telegraph Age, 253 Broadway, New York City, N. Y.

### BIND YOUR PAPERS.



This Binder is superior to all others, as it is intended to be a permanent or temporary covering for THE AGE. It is worth many times its cost for keeping and preserving all copies of the paper in convenient and compact form. This Binder differs from all others in not having a looseness at the back of the cover, as is the case with other binders.

Price, \$1.00, Postage Prepaid.

JOHN B. TALTAVALL,  
Telegraph Age,  
253 Broadway, New York

### Secret Sounders

FOR TELEGRAPH WORK  
PRICE, \$5.00

Invaluable in newspaper and broker offices. Easily adjusted, strong, durable and simple.

ADDRESS,  
JOHN B. TALTAVALL,  
TELEGRAPH AGE, 253 B'way, N. Y.

### JUST OUT.

SMALL ACCUMULATORS. PRICE 50c.

HOW TO MAKE AND USE THEM.  
With Numerous Illustrations.

BY P. T. A.

Mailed postpaid to any address on receipt of price.

J. B. TALTAVALL, Telegraph Age,  
253 Broadway, - - - New York.

### Excelsior Webster Pocket Speller and Definer of the English Language



containing over 25,000 words. This work gives the correct orthography and definition of all the words in common use. The illustration gives a fair idea of the shape of the work being especially made to fit the pocket and bound in a style which makes it durable and elegant. This Speller and definer is not reprint, but has been carefully prepared by competent hands to meet the general want for a book of this kind, and for the space it occupies has no superior in the publishing world; containing 820 pages, double column. It weighs 2 1/4 ounces, size 5 x 2 1/4 inches, bound in elegant American Russia leather and indexed.

J. B. TALTAVALL,  
253 BROADWAY  
New York.

NOW IS THE TIME...  
TO SUBSCRIBE FOR

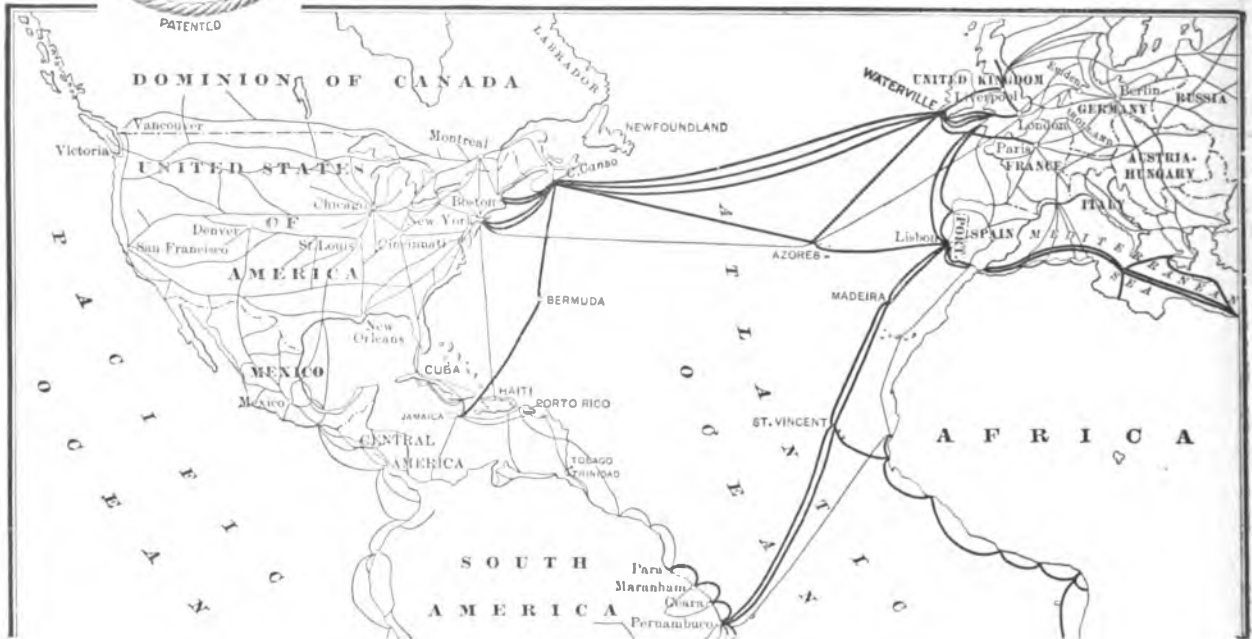
TELEGRAPH AGE.

# Commercial Cable Co.



**CONNECTIONS :**

POSTAL TELEGRAPH-CABLE COMPANY,  
 CANADIAN PACIFIC RAILWAY TELEGRAPHS,  
 HALIFAX & BERMUDAS CABLE COMPANY,  
 DIRECT WEST INDIA CABLE COMPANY,  
 DEUTSCH-ATLANTISCHE TELEGRAPHEN-GESELLSCHAFT  
 (GERMAN ATLANTIC CABLE COMPANY).



EXECUTIVE OFFICES,  
 POSTAL TELEGRAPH BUILDING, N. Y.

JOHN W. MACKAY, PRESIDENT.  
 GEO. C. WARD, VICE-PRES. & GEN'L MANAGER.

## THE REASONS WHY THE POSTAL TELEGRAPH-CABLE COMPANY



IS THE

### ONLY SUCCESSFUL COMPETITIVE TELEGRAPH SYSTEM EVER MAINTAINED :

Its proprietors and management determined from the first to establish a permanent business based on sound principles and business-like methods, and have steadfastly adhered to that policy.

Its employees are intelligent, diligent, energetic and enthusiastic. They are in sympathy with their employers and are working for the company's interests, recognizing that their interests are identical with the company's interests and that unless the Postal service is the BEST, public patronage cannot be retained.

Every man in the "Postal's" service is proud of the company's success.

These are the reasons why the "Postal" Company has been successful in the past and will be successful in the future.

*The progress of the Postal Telegraph System is evidenced by the continued extension of land lines, the numerous and important railroad connections recently made, the valuable connections with the German cables, the Pacific cable (now being constructed), the Direct West Indies cable, the Bermuda cable, etc.*



....THE....

# Western Union Telegraph Co.

Executive Offices, 195 BROADWAY, :: :: :: :: NEW YORK

ROBERT C. CLOWRY, President and General Manager.

## The Largest Telegraphic System in Existence

900,000 MILES OF WIRE. 22,500 OFFICES.

### TWO AMERICAN ATLANTIC CABLES

From New York City to Penzance, England, direct. Both cables are duplexed. Connects also with FOUR ANGLO-AMERICAN and one DIRECT UNITED STATES CABLES. Direct communication with GERMANY and FRANCE. DIRECT WIRES to GALVESTON, TEXAS, connecting at that place with the Cables of the MEXICAN, the CENTRAL and SOUTH AMERICAN TELEGRAPH COMPANIES for

ALL POINTS IN MEXICO AND CENTRAL AND SOUTH AMERICA

DIRECT WIRES and CABLES to HAVANA, CUBA, connecting at that place with the CUBA SUBMARINE and WEST INDIA AND PANAMA TELEGRAPH COMPANIES for

ALL POINTS IN THE WEST INDIES

Exclusive Connection with the Great North-Western Tel. Co. of Canada

#### OFFICES IN GREAT BRITAIN

252 Gresham House, Old Broad Street, :: London, E. C.

40 Mark Lane, London, E. C.  
 21 Royal Exchange, London, E. C.  
 109 Fenchurch Street, London, E. C.  
 Effingham House, Arundel Street, Strand, London, W. C.  
 2 Northumberland Avenue, London, W. C.  
 A 5, Exchange Buildings, Liverpool.  
 Backhall Chambers, Baldwin Street, Bristol.

29 Gordon Street, Glasgow.  
 10 Forster Square, Bradford.  
 1 Panmure Street, Dundee.  
 106 George Street, Edinburgh.  
 Exchange Buildings, Leith.  
 7 Royal Exchange, Bank Street, Manchester.  
 1 Side, Newcastle-on-Tyne.



**GOOD BUSINESS IF YOU USE OUR  
150 OHM MAIN LINE TELEGRAPH SETS**

It can be quickly adjusted to meet any line conditions in any kind of weather. If you want to use it outside for Line Testing, etc. order a leather carrying case with shoulder strap.

**FOOTE, PIERSON & Co.**  
NEW YORK  
Telegraph Instruments our Specialty

## Gold and Stock Life Insurance Association

— TWENTY-FIFTH YEAR —

For Telegraphers and Others in Electrical Service.

**INITIATION FEE, \$1.00; DUES, 50 Cents per Month; INSURANCE, \$500.00, in payments of \$50.00 per Month for Ten Consecutive Months.**

WM. J. DEALY, Secretary, 195 BROADWAY, NEW YORK.

Received Only Medals Awarded World's Fair, Chicago, 1893.

## COVERING INSULATED WIRES AND CABLES

FOR  
Aerial, Underground, - - -  
Submarine and Interior Use.



**KERITE TAPE.**

Catalogues, Samples and Prices on Application.

FOR  
Telephone, Telegraph, Power and Lighting.

**W. R. BRIXEY,**  
MANUFACTURER.

203 BROADWAY, NEW YORK.

CALIFORNIA ELECTRIC WORKS,  
San Francisco, Cal.

## 1898 EDITION — OF — Experimental Science

By GEO. M. HOPKINS.

20th Edition Revised and Enlarged.

914 Pages, 820 Illustrations.

Price \$4.00 in cloth; \$5.00 in half morocco, postpaid

This is a book full of interest and value for Teachers, Students, and others who desire to impart or obtain a practical knowledge of Physics. This splendid work gives young and old something worthy of thought. It has influenced thousands of men in the choice of a career. It will give anyone, young or old, information that will enable him to comprehend the great improvements of the day. It furnishes suggestions for hours of instructive recreation.



Address, J. B. TALTAVALL,  
253 Broadway, NEW YORK.

## THE WESTON STANDARD VOLTMETERS AND AMMETERS.



The Weston Standard Mill-Ammeters and Ammeters are infinitely superior to galvanometers for tests of current strength on lines and for tests of Relays, Sounders and other Telegraphic Apparatus. They are direct-reading, dead-beat, and are practically uninfluenced by the earth's field. No constants are required, and with careful use there is no necessity for recalibration. The Weston Standard Voltmeters are the very best practical instruments obtainable for determining the electro-motive force of single cells, or series of cells, or for ascertaining the voltage on lines. By the proper use of these instruments all tests of resistance, current, strength and electro-motive force required in telegraphic practice can be made with great ease and accuracy. Correspondence solicited.

**WESTON ELECTRICAL INSTRUMENT COMPANY,**  
WAVERLY PARK, NEWARK, N. J.

BERLIN: European Weston Electrical Instrument Co., Ritterstrasse No. 89.  
LONDON: Elliott Bros., No. 101 St. Martin's Lane.

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

Pope's Modern Practice of the Electric  
Telegraph. A handbook for operators. 223 pages, fully illustrated. Price, \$1.50, postage prepaid. Address J. B. Taltavall, TELEGRAPH AGE, 253 Broadway, New York.