

WILLIAM DUBILIER - 339 GARDEN ROAD PALM BEACH, FLORIDA 33480

# CONTINENTAL WIRELESS TELEPHONE AND TELEGRAPH COMPANY

EMBRACING THE FOLLOWING SYSTEMS: COLLINS WIRELESS TELEPHONE PACIFIC WIRELESS TELEGRAPH CLARK WIRELESS TELEGRAPH AND TELEPHONE MASSIE WIRELESS TELEGRAPH

WILLIAM DUBILIER 339 GARDEN ROAD PALM BEACH, ELORIDA 33480

# Continental Wireless Telephone and Telegraph Company

The Continental Wireless Telephone and Telegraph Company, capital stock \$5,000,000, par value of shares \$1.00 each, has been organized to control, operate and develop wireless telephone and telegraph systems now doing business in America. This Company will have, it is believed, absolutely the best there is in the wireless field to=day.

Arrangements have been made for a controlling interest in the Collins Wireless Telephone Company, capitalized at \$1,000,000; the Clark Wireless Telegraph=Telephone Company, capitalized at \$2,500,000; The Pacific Wireless Telegraph Company, capitalized at \$10,000,000 and the Massie Wireless Telegraph Company, capitalized at \$300,000; the acquirement of all their rights, titles, interests, patents, stations and assets generally which will place the Continental Company in a very strong position, making its shares a most attractive and inviting investment—a security which embodies all that is conservative, safe, tangible and profitable. The advantages of this consolidation are manifold:

- It gives the Company an immediate wide field of operation and consequent earning capacity.
- It gives investors an opportunity to become associated with a conservatively capitalized wireless enterprise, stations of which have been, and now are, doing a commercial business.
- It assures the establishment of a trans-continental wireless telegraphtelephone service.

The capitalization of the Continental Company is most conservative and reasonable, and indicates the future business policy of the management. There are no bonds or preferred stock.

The Continental Company enters the field with not only the best there is in wireless telephony and telegraphy, but with the most experienced and efficient management that it is possible to concentrate on one enterprise. It numbers, among others, men with a professional, technical and financial experience in wireless —men who have aided in perfecting and developing the systems now in use, and who thoroughly understand every branch of the business. The greatest results can thus be obtained from the least expenditure of time and money.

Success in a large undertaking such as this is dependent on the perfection of all of its parts and it is with great satisfaction that the Continental points to the record of The Pacific, The Clark, The Collins and The Massie Systems.

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### The Collins Wireless Telephone Company

The Collins Wireless Telephone Company of Newark, N. J., has spent years in develop= ing its wireless telephone, under the direction of the well=known wireless expert and scientist A. Frederick Collins. The Company was awarded the highest award, -a Gold Medal, the first and only gold medal ever given exclusively for a wireless telephone—in September, 1909, at the Seattle World's Fair.

The Collins Company has the great advantage of wide exploitation, good standing and of being well known throughout the country. The actual use of its telephone has been demonstrated repeatedly to scientists, experts, mayors of cities, governors of states, and prominent men in all parts of the country.

It is the intention of the Continental Company to install the wireless telephone and put the same in operation as an auxiliary to the wireless telegraph at all the Company's stations, thus furnishing the public with the most complete wireless systems in existence, placing the Collins telephone system in practical operation over an extended developed field, in the quickest possible time.

### The Clark Wireless Telegraph-Telephone Company

The Clark Wireless Telegraph=Telephone System is the creation of Thomas E. Clark, an electrical engineer of Detroit, Mich., and has been in practical and successful operation on the Great Lakes of America during the past five years.

This Company owns stations at Buffalo, Cleveland, Detroit, Port Huron, Bay City, Saginaw, Alpena and Ashtabula. Additional stations will be erected at Sault Ste. Marie, Toledo, Port Arthur, Duluth, Marquette and Keweenaw Bay. These stations will be used in forming the trans-continental chain from Maine and the Atlantic Coast to the Pacific, by the Continental Company.

The Commerce and shipping industries of the Great Lakes are of enormous magnitude, and exceed, both in amount of traffic and tonnage, that of the ocean-going fleets of the world. Vast steamships of a tonnage twice that of the largest ocean-liners of ten years ago, now traverse these great inland waters. Great cargoes of grain, iron ore and other merchandise are constantly being transported from one point to another. The Pittsburgh Steamship Company alone operates a fleet of one-hundred-and-five steamships, and practically all of the iron ore consumed by the big steel mills of Pittsburgh and surrounding territory is carried by way of these lakes.

The Clark System, since its installation, has given reliable service and has enjoyed all the business its facilities would permit handling, reaching as many as 10,000 messages per month.

The Clark is a perfect, practical system and has already demonstrated its ability to handle a large volume of business, and in view of which, no difficulty will be experienced in securing all the additional business its increased facilities can transact. A

contract was closed during the month of April for the equipment of eighteen additional steamships.

Thomas E. Clark, expert electrical engineer, will be prominent in the practical and technical management of the new company.

## The Pacific Wireless Telegraph Company

The Pacific Wireless Telegraph Company owns valuable wireless patents and is an established, going concern with high power stations at New York, Philadelphia, Chicago, and Milwaukee; on the Pacific Coast at Los Angeles, San Francisco, Oakland, Seattle, Port Townsend, Friday Harbor and Victoria, B. C.

To connect the Atlantic with the Pacific and establish a chain of stations uniting the largest cities in the country, it is only necessary to put in plants at Pittsburgh, St. Louis, Omaha, Denver, Salt Lake City and Reno. Stations will also be erected at Portland, Maine, Boston, Mass., Washington, D. C., and other points.

As will be seen by the endorsements attached, the stations named above have been in operation for several years and have handled thousands of messages of all kinds. There has never been a claim for error in transmitting this great volume of business.

This Company has been established several years on the Pacific Coast, where most of the stations are located, and enjoys an excellent reputation for prompt and efficient service. Its operation proves conclusively that a very large and profitable local business can be secured and handled by the erection of additional stations at stratagetical points. The first greeting on the approach of the fleet to the Pacific Coast was flashed from the flagship "Connecticut" to a Pacific Wireless Station at Los Angeles—a distance of 800 miles.

### The Massie Wireless Telegraph Company

The Massie Wireless Telegraph System is the result of years of study and experiment by Walter W. Massie, of Providence, R. I. This system has been in practical operation for over six years, and has definitely demonstrated its ability and usefulness by doing a very satisfactory commercial business, principally along the Atlantic Coast.

Steamers of the following lines have used the Massie equipment: San Francisco & Portland Steamship Co., Humboldt Steamship Co., Pacific Coast Steamship Co., Matson Navigation Co., New England Navigation Co., Maine Steamship Co., Fall River Line, Providence Line and the New London Line of the N. Y., N. H. & H. Railroad Co. In addition to this service, land stations are located at Wilson Point, Conn., Point Judith, R. I., Block Island, R. I., Cape May, N. J., New London, Conn., Chatham, Mass. Stations have been equipped for the United States Navy at Cape Henlopen, Del., Navy Yard, Washington, D. C., Beaufort, N. C. and the Navy Yard, Charleston, S. C. Also by the Signal Corps of the United States Army at the following Alaska points: Nome, Fort Gibbon, Circle City and Fairbanks, and at Malabong, Philippine Islands. The Government has been supplied with instruments for equipping additional stations in the Philippines and other tropical climates.

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It is intended to further develop the system by erecting additional stations at Boston, Mass., Cape Henry, Va., Cape Hatteras, N. C., Southport, N. C., Key West, Fla. and New Orleans, La.

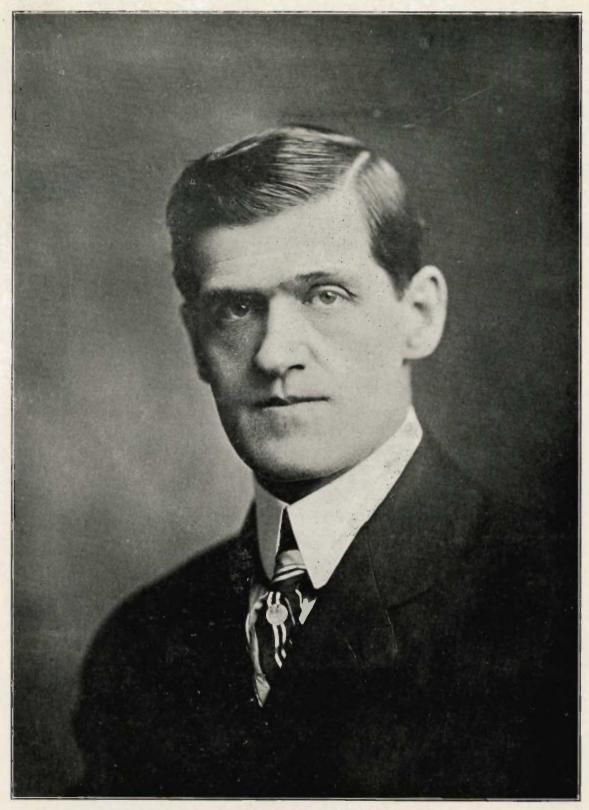
A large amount of contract work has been done for the Navy Department, Army and Revenue Cutter Service, also for numerous foreign Governments. During the past five years Government contracts alone have amounted to many thousands of dollars. This business will be retained, and can be greatly increased. In awarding contracts for wireless apparatus for the United States Government, the Department has in many instances specifically stated that certain parts of Massie apparatus shall be furnished.

The Massie System of Wireless Telegraphy has been giving the utmost satisfaction; already many lives and much property have been saved through its use. It has worked effect= ively in distances up to 2,900 miles.

Mr. Massie, of large experience in wireless matters, will be identified with the Continental Company in a scientific and practical capacity.

Wireless Telegraphy and Wireless Telephony are the most important industrial and scientific matters in the world's commerce and social affairs of the day and should prove the cheapest and most complete means of communication the world has ever known.

# **Collins Wireless Telephone Co.**



A. FREDERICK COLLINS INVENTOR OF THE WIRELESS TELEPHONE TECHNICAL DIRECTOR AND CONSULTING ENGINEER Continental Wireless Telephone and Telegraph Co.

# The Collins Wireless Telephone

## THE PIONEER OF WIRELESS

A. FREDERICK COLLINS—the name stands pre-eminent in wireless—gives to this company his undivided attention and unswerving laboratorial investigation of wireless and brings all of his present and future inventions so that superiority in construction of mechanisms for use is maintained, ensuring service not surpassed by that of any concern in existence.

## From "Who's Who in America"

#### A. FREDERICK COLLINS

"Electrical physicist; b. South Bend, Ind., Jan. 8, 1869; s. Capt. Thomas J. (48th Ind. Vols.) and Margaret A. (Roller) Collins; ed. public schools and old Univ. of Chicago; m. Atchinson, Kan., June 28, 1897, Evelyn Bandy; one son, Virgil Dewey (8). Discovered effect of electric waves on brain cells; inventor of wireless telephone. Author: Wireless Telegraphy, its History, Theory and Practice; Manual of Wireless Telegraphy; Construction of Induction Coils. Technician, Collins Wireless Telephone Co. Republican. Mem. Am. Inst. Elec. Eng'rs. Residence, The Antlers, Congers, N. Y. Laboratory, 54 Clinton St., Newark, N. J. Dignitaries, Prominent Business Men and Educators in Many Walks of Life Have Taken Part in Successful Demonstrations of the Collins Wireless Telephone



WILLIAM JENNINGS BRYAN AND MAYOR GOLDWATER, PRESCOTT, ARIZONA

September 19, 1909

## COLLINS WIRELESS TELEPHONE



A. FREDERICK COLLINS, INVENTOR OF THE WIRELESS TELEPHONE MAKING A LONG DISTANCE TEST WITH HIS PERFECTED INSTRUMENT

## FROM THE EDISON MONTHLY

NOVEMBER, 1910

The Electrical Show, which was held in Madison Square Garden, October 11 to 21, marked a crowning event in the history of such exhibitions. From the standpoint of attendance, excellence of exhibits, beautiful lighting and decorations and general interest displayed there has been no parallel in the history of the electrical industry.

## The Collins Wireless Telephone Co., Newark, N. J.

This exhibit consisted of the latest mechanism invented by A. Frederick Collins for the transmission of speech without wires. Evolution of means of communication has been rapid within the past few years, as is shown by the wireless telephone. The Collins' developed instrument was exhibited in working order. Visitors were permitted to perform for themselves the miracle of talking through solid walls without wire connections of any kind. Words spoken into the transmitter were projected by electric energy, and waves of ether carried the sounds through any sort of obstruction. In his long distance tests the inventor used 500 volts increased to 5,000 volts by a direct connected motor-generator set designed to stand high potential strains. This current energized a self-regulating arc lamp having revolving electrodes. A blow-out magnet was adjusted to the oscillation arc at right angles and one end of the magnet was placed in series with the positive wire and the other coil in circuit with the negative wire. The magnet fixed the arc in the best position and the coils served to choke back the oscillations from the high-tension generator. Across the 500-volt directcurrent circuit the terminals of a small transformer coil were shunted, but a condenser was interposed to check the high-voltage direct current from flowing through it. The primary of the transformer was connected in series without limit, and this was illustrated by a wealth of photographs taken of actual scenes where the wireless was used in various parts of the globe. Tests were made at right angles with the current of the Marconi wireless telegraph, showing that transmission with Collins wireless instruments is impervious to interference.



POCKET WIRELESS 'PHONE

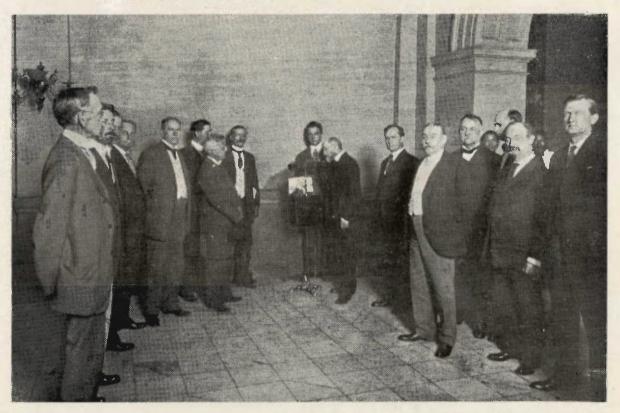
## **ITS FIELDS ARE** LIMITLESS

PHILADELPHIA PRESS Wednesday, February 16, 1910.

## POCKET WIRELESS PHONE

The grand opera was also heard in the booth of the Collins Wireless Telephone in the armory.

At this booth there was shown for the first time a pocket wireless telephone apparatus. This is simply a small wooden box with a telephone receiver. Placed in the zone of the wircless waves, this little instrument transmits the sounds perfectly.



GOVERNOR JOSEPH M. BROWN AND MEMBERS OF SUPREME COURT OF THE STATE OF GEORGIA AT A SUCCESSFUL DEMONSTRATION OF COLLINS WIRELESS TELEPHONE, CAPITAL BUILDING, ATLANTA, GA. Chief Justice Fish; Asso. Justices Holden, Evans, Atkinson; Governor Jos. M. Brown; Dr. Kopp, Gen. J. Stoppelbein, Asa C. Chanler, Geo. M. Davis, Ex-U. S. District Attorney Henry and Members of the Court of Appeals

The first public test of wireless telephony ever given in Georgia was made at the State Capital Thursday morning. The instrument used was the Collins wireless. The experiment was made in the presence of Governor Joseph M. Brown and all members of the State Supreme Court. All took their turn at talking over the phone and were greatly pleased. During the test they talked through four feet of concrete wall without any difficulty at all. George Merritt Davis locked himself in the vault of the office of the public ground-keeper and from there talked to those who picked up the receiver in one of the corridors of the building. It was very easy for those using the 'phone to hear Mr. Davis talking. "I can hear you as plain as day," said Governor Brown, when he picked up the receiver and began talking to Mr. Davis. "I can understand just as well as if you were here within a foot of me." All of the justices talked over the instru-ment and were loud in their praise of it. Gen. Joseph L. Stoppelbein is in charge of the Atlanta office of the Collins Wireless Telephone Company.

Telephone Company.

FIRST GOLD MEDAL Ever won by any inventor or company for Wireless Telephones, exclusively at a great World's Fair, or at any time anywhere was conferred on the COLLINS WIRELESS TELEPHONE CO., At the Alaska-Yukon-Pacific Exposition, September 18, 1909



ATTENDANCE AT A. Y. P. FAIR, SATURDAY, 61,569 le, Wash., Sept. 19, 1909. SEATTLE POST INTELLIGENCER. Sept., 18, 1909

SEATTLE TIMES, Seattle, Wash., Sept. 19, 1909.

SEATTLE HOUSES GET MANY AWARDS

Judging of Exhibits in Alaska-Yukon-Pacific Exposition shows this City to Hold its Own

Competition Includes Europe and Orient

Reports Returned to Directors of Exhibits Henry E. Dosch

Seattle houses are coming in for their share of awards at the Alaska-Yukon-Pacific Exposition. Especially is this fact pleasing to Seattle business men, when it is remembered that competition is not confined to the Pacific, Northwest, nor to the United States, but Europe and the Orient.

#### Electricity

Gold Medal—Collins Wireless Telephone Co., Newark, New Jersey, Wireless Telephone, Manufacturers Building; Cascade Gas and Electric Fixture Co., Seattle, Wash., electroplating, Manufacturers building. WINS GOLD MEDAL

The gold medal, highest award for wireless telephones, was conferred on the instruments of A. Frederick Collins, inventor of wireless telephony, at the A.-Y.-P. exposition to-day for commercial utility and technical superiority. The judges were Prof. F. E. Johnston, Washington University; F. P. Turner, United States Army, and Leopold Stocker, electrical expert.

SPOKESMAN REVIEW, September 19, 1909.

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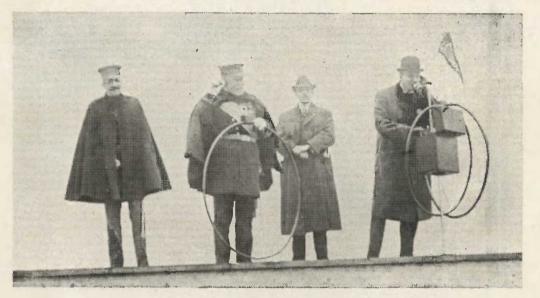
### A. Y. P. AWARD

Gold Medal, Highest Award, Conferred on Collins Wireless Telephone at A-Y-P Exposition

#### Spokane to Have Big Station-Interesting Exhibition Given at Crescent Store Fair Week

Sept. 18—A. Frederick Collins, inventor of the wireless telephone, was to-day awarded the gold medal, the highest award, for his exhibit of wireless telephones at the A.-Y.-P. exposition, commercial utility and technical superiority being the grounds on which the honor was conferred. The judges were Professor F. E. Johnston of the Washington University, F. P. Turner, United States Army, and Leopold Stocker, electrical expert.

## THE COLLINS WIRELESS TELEPHONE



GENERAL GRANT AND THE COLLINS WIRELESS TELEPHONE

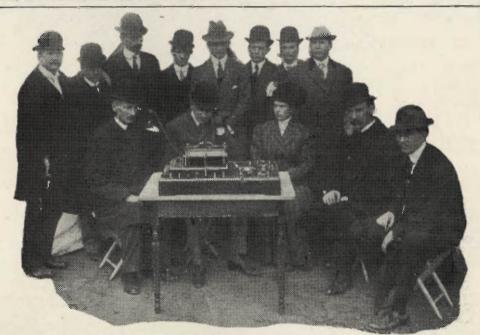
#### HEARST'S CHICAGO AMERICAN, March 17, 1910

"General Grant and Ex-Mayor Dunne talked over a wireless telephone at Thirty-third street to the approaching train. The telephone is the invention of A. Frederick Collins, a graduate of the (old) University of Chicago.

#### Danish Ambassador Favorably Reports Wireless Telephone to His Government

POST, Washington, D. C., Tuesday, November 16, 1939: "I shall describe this demonstration at length in my report to the Danish Government," said Count Moltke, "and tell them of the remark-

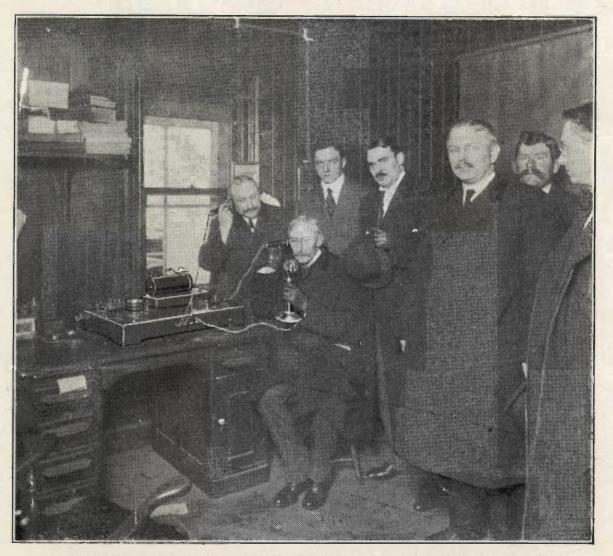
able clarity with which the voice is transmitted over distance without wires, and recommend investigation, with a view to adoption."



COUNT VON MOLTKE, DANISH "AMBASSADOR, ENJOYING" A WIRELESS TALK.

STAR, Washington, D. C., Tuesday, November 16, 1939: WIRELESS TELEPHONE TRIALS

MINISTER FROM DENMARK TALKS WITH DANISH SCIENTIST What was announced as the first wireless telephone demonstration in this city was given yesterday afternoon near the tidal basin and Washington Monument, in the White House grounds. Count Von Moltke, minister from Denmark, talked to A. C. Loewehjelm, a young Danish scientist, across the water without wires, and was complimentary regarding the future of the wireless telephones of A. Frederick Collins. Dr. Kopp is the inventor's technical assistant. Among those who talked with the instruments were Commissioner Macfarland, George E. Hamilton, Capt. F. E. Beatty, U. S. N.; Anthony Gaegler, Maj. T. T. Smith, Isaac Gans, John Galloway, George White, W. H. Potter, A. A. Connelly, Charles C. Glover and O. G. Staples. PHILADELPHIA'S CITY ENGINEER TESTIFIES **NOVEMBER 28, 1909** 



A. E. HARVEY, CITY ENGINEER OF PHILADELPHIA, PA., TALKING ON COLLINS PHONE.

NORTH AMERICAN, Sunday Morning, November 28, 1909

### INVENTOR WORKS WIRELESS TELEPHONE

### DEMONSTRATES APPARATUS WHICH UTILIZES BODIES OF WATER INSTEAD OF METAL LINE

Telephoning without wires was proved practical yesterday after-noon, when tests were made of the Collins appliances between two of the Delaware avenue piers. This was the first demonstration of the wireless telephone apparatus in this city. It is an invention by A. Frederick Collins, and was awarded a gold medal at the Alaska-Yukon Pair. The message was transmitted to the next pier. The current used was the commercial current of 500 volts "stepped-up" by a booster of 5,000 volts. Those who were present during the experiments were Captain Charles Evans, president of the Atlantic City National Bank; George M. Davis, E. M. Pine, A. E. Harvey, John H. Simon and Philip J. Kress.

#### PHILADELPHIA PRESS, November 28

"The voice is more distinctly heard through this machine," said City Engineer A. E. Harvey, "than through the ordinary 'phone. The clarity of tone is simply marvelous. Not a syllable missed me, and it seems likely that this scheme may be the means of communication for some localities in the future." Wireless telephone was proven successful before a group of scientists and newspaper men yesterday afternoon by tests held on Piers 5 and 8, at the United Pruit Company's wharves, at the foot of Arch street. The apparatus invented by A. Frederick Collins.

FREE PRESS, Winnepeg, Can., November 29, 1909

## WIRELESS TELEPHONES

TEST MADE AT PHILADELPHIA A COMPLETE SUCCESS-WHIS-PERS COULD BE HEARD

Philadelphia, Pa., Nov. 28.—The first test of the Collins wireless telephone to be given in this city took place between two of the Delaware river piers. A. E. Harvey, city engineer, and Charles Evans, president of the Atlantic City National Bank, made the test. Dr. A. C. Loewehjela Kopp of Copenhagen and George M. Davis of New York assisted. The test was a complete success. It is proposed to use the Instruments in an air test from an aeroplane. The tests were performed so effective that a whisper could be heard from wharf to wharf by the operators. A whistle was plainly audible and even the operators' breathing could be heard. The receivers and transmitters to which these are attached are similar to those of the ordin-ary telephone and as far as the operator is concerned the methods of their use differ slightly.

#### ABSOLUTE SECRECY

Secrecy in sending a message is maintained by means of "selectiv-ity." Every sound is composed of a number of vibrations which are recognized by the receiving instrument regardless of rapidity or number. This makes the wireless more secret than the wire system, because it is based on vibration alone. The new system will put vessels within hailing distance while passing at a distance of 80 to 100 miles.

## THE ELECTRICIAN, LONDON, ENGLAND

THE OLDEST WEEKLY ILLUSTRATED JOURNAL OF ELECTRICAL ENGINEERING, INDUSTRY, SCIENCE AND FINANCE

#### MARCH 4, 1910

## THE COLLINS LONG-DISTANCE WIRELESS TELEPHONE

A sweeping plan for the extension of the wireless service for the United States Navy has been submitted to Congress by Rear-Admiral Cowles, Chief of the Bureau of Equipment, in which he advocates that wireless apparatus of the latest type be supplied to all the new vessels of the Navy, including destroyers and all auxiliaries.

Wireless telephony will receive its share of consideration as well as wireless telegraphy, and the conditions require a system which will be operative over distances of 100 miles, and remain in adjustment for five minutes at a time. The Collins system will be one of those competing, and, as the result of recent tests, it is evident that it will easily fulfil the requirements cited. The apparatus will be duplicates of that shown at the recent Alaska-Yukon-Pacific Exposition at Seattle, and described in the following notes.

The transmitting apparatus in its entirety includes a Collins revolving oscillation arc lamp, a high frequency and high potential variable tuning inductance transformer; and adjustable tuning auto-transformer, and the usual revolving variable condenser. These separate devices are designed to withstand potentials of 5,000 volts or more.

The initial current is at a pressure of 500 volts direct. This was raised to 5,000 volts in the case of transmission between Newark and Philadelphia, though a pressure of 2,500 volts is generally used, produced by a motor-gencrator sct. The latter high-voltage current is used to energize the revolving oscillation arc lamp, which is an improvement on those previously employed. The lamp proper consists of a pair of hard carbon disc electrodes, and these are mounted on parallel spindles so that they are in the same plane, and are connected by means of bevel gears secured to an insulated shaft. The discs are insulated from each other by mica bushings fitted in the gearing, the casing forming one of the connections, while the insulated bearing in the bottom of the casing forms the other. The gearing is so arranged that the disc electrodes are rotated in opposite directions, the power being furnished by a small motor. One of the bearings of the shaft is mounted in a keyed sleeve, which permits the spindle carrying one of the carbon discs to be moved toward or away from the opposite disc, so that the length of the arc may be varied while the lamp is in operation. The carbon electrodes are placed in a metal casing, while the rotating mechanism is attached to the bottom of the casing. In the long-distance tests between Newark and Philadelphia hydrogen was used, but for short distances the arc burns in an air blast.

The casing is supported between the poles of an electromagnet, and through the ends of the poles and at right angles to them are polar projections of soft iron which are threaded, and these are screwed through the extremities of the magnet and at right angles to the arc, thus permitting the magnetic field to be varied within wide limits. The coils of the magnet are also used as a portion of the primary circuit of the transmitter, serving the purpose of choke coils, and so preventing the oscillations from backing up into the high tension direct-current generator. The rotating oscillation arc obviates the disadvantageous features of the stationary arc, in that a constantly fresh and cool surface is presented to the arc, and in that it prevents the uneven burning away of the electrodes which give rise to untoward variations in the frequency of the oscillations, thereby throwing the circuits out of resonance; it is also advantageous in the optimum length of the arc – namely, the length at which the resistance of the closed circuit, and finally in that a constant arc may be maintained for very much longer periods of time than is possible where the carbons are stationary.

The chief improvement in the combination tuning inductance transformer is that a new and novel means of contact is introduced, whereby any variation of the inductance can be had, and in tuning a wireless telephone transmitter this is vitally necessary. The contact is made by a ring provided with three small grooved pullcys, which press against the turns of the tubing forming the primary. Having a spiral form, this coil causes the ring, when it is rotated, to travel back and forth from end to end. A small track under the coil serves to guide a carriage, which in turn makes contact with the ring. With this arrangement the inductance can be varied, thus making it easy to put the closed oscillating circuit in resonance with the open radiating circuit. The secondary is arranged to slide in or out of the primary, making a loose coupling, which is another essential in the production of high-frequency undamped oscillations. The adjustable tuning auto-transformer is designed to be used in the aerial wire circuit, and more or less inductance can be had by turning the wheel, causing the contact spring to travel back and forth. The variable condenser consists of a number of semi-circular fixed plates of metal, built up in a cylinder of insulating oil, while a second series of movable plates secured to a spindle meshes with the first set, but is insulated from it. A handle attached to the rod permits any variation of capacity within the limits of the condenser to be obtained. A scale, divided into thousandths and ten thousandths of a microfarad, and a pointer indicate the value of the capacity at any point.

The transmitter is of the carbon granular type, but of special design and construction. It is formed of two oppositely disposed diaphragms with the granules between them, so that the voice impulses cause them to vibrate against each other, thus increasing the amplitude as compared with a single diaphragm transmitter. For longdistance work this transmitter is air-cooled.

The longest distance covered by this system is 81 miles, between Mr. Collins' laboratory in Newark, N. J., and the Land Title Building in Philadelphia. The intervening country is flat and practically at sea level. The power used was approximately 2½ kw.

At the Alaska-Yukon-Pacific Exposition the Collins wireless telephone received the highest award, the gold medal, conferred over all competitors by the official electrical jury, composed of Prof. F. E. Johnston, of the Washington University; Capt. F. P. Turner, of the United States Army Signalling Corps, and Mr. Leopold Stocker, electrical engineer.

## COLLINS-SANCHEZ HIGH FREQUENCY AND X-RAY APPARATUS



The Collins-Sanchez High Frequency Apparatus, nowadays a necessity to physicians and surgeons in vibratory, X-Ray and surgical cautery treatments is greatly in demand and many thousands can be sold every year. In developing his perfected wireless telephone, A. Frederick Collins, found the existing induction coils of commerce defective and subject to frequent breakdown and with Senor Monico Sanchez, the Spanish expert in the Company's employ, designed a special coil for use with the wireless telephone, and this was found so perfect for the use of physicians and surgeons, in demonstrations given in public exhibitions, that the subsequent demand made extended manufacture imperative. The Collins-Sanchez instrument is now displacing cumbersome static or other machines used in the healing arts. The manufacture and sale of this beneficial apparatus will yield a handsome revenue to the company. It is the most powerful, high frequency static machine in use. Many thousands can be sold every year and the demand now is beyond the present factory facilities.

The Collins-Sanchez Portable High Frequency Apparatus can be carried to the

patient's bed-side. It will work both on alternating and direct current circuits, operating by connection with an ordinary lamp socket of any lighting circuit, and no special electrical knowledge is required for its manipulation.

Defective insulation in induction coils has been the rock on which instrument makers have foundered up to now.

#### THESE COILS DO NOT BREAK DOWN

The proper selection of materials and processes and methods used in insulating the circuit conducting currents of high frequency and potential, has been the aim and successful accomplishment of Sig. Sanchez, the designer. He has obviated the greatest defect known in this species of manufacture.

The materials he uses are the result of innumerable experiments and tests, in well equipped laboratories, and are known only to himself. He gives a guarantee against the possibility of breaking down through defective insulation.

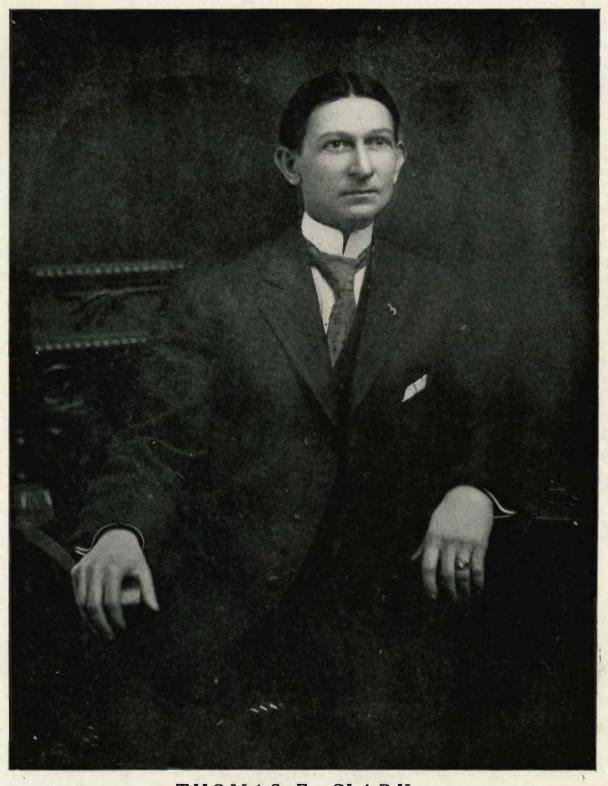
X-ray work is now a feature in the practice of medicine, and these instruments are of immense value in this application.

The Collins-Sanchez instruments have a special circuit to operate the diagnosistic lamp.

With full knowledge of the curative power of electrical energy, and a clear grasp of the fact that many doctors are without a complete knowledge of currents and their production, the Collins-Sanchez instrument was invented without the heavy rheostat, ponderable electrolytic or mercury interrupter and other devices that take up space and only confuse the physician, reducing the apparatus to extreme simplicity. The most inexperienced operator can manipulate them as well as an expert in fifteen minutes, by following instructions.

As the use of electricity has become more and more important in the practice of medicine and surgery, and as the advances of modern science indicate, that electrical energy will enter more largely into healing, therapeutical apparatus, simple of manipulation, of unusual durability, with no danger of breakdown in any of its parts, is bound to become one of the most important assets in the medical and surgical world.





THOMAS E. CLARK FOUNDER AND INVENTOR OF THE CLARK WIRELESS TELEGRAPH AND TELEPHONE SYSTEMS GENERAL MANAGER Continental Wireless Telephone & Telegraph Company

## FACTORY AND LABORATORY The Clark Wireless Telegraph Co.

The Clark System maintains a factory and laboratory fully equipped with the latest improved machinery and appurtenances for practical work and for making mechanisms and parts.

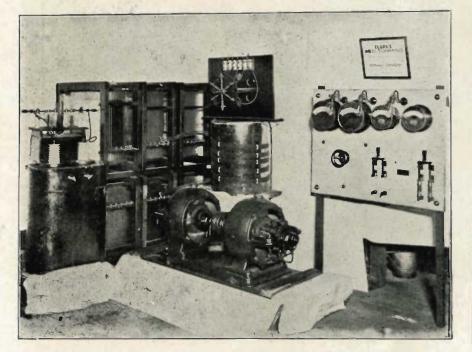
In 1908 the U. S. Government used Clark Wireless instruments in various departments and a great deal of business has come from that critical source.

Before purchasing supplies of any kind the Government requires the most rigid investigation. Clark demonstrated his apparatus before a board of experts, in competition with foreign systems and won highest approval and as a result a large number of Clark Wireless Telegraph sets have been sold to the United States Government and the results have been excellent. Clark types of apparatus were the first to be installed at Forts Hancock,



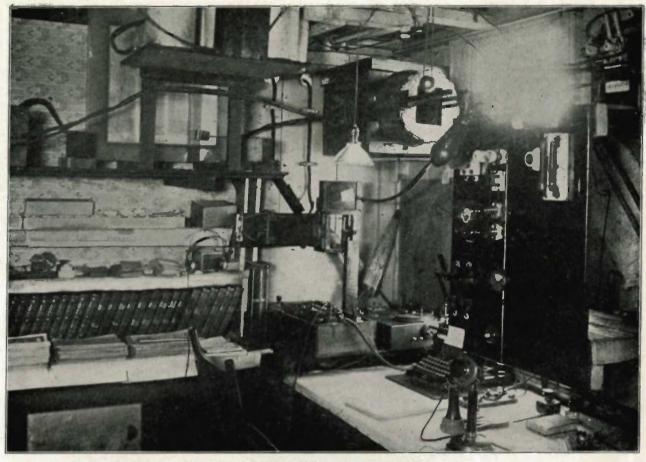
FACTORY AND LABORATORY, DETROIT, MICH.

Schuyler, Wadsworth, Woods, Michie, Terry, Hamilton in New York; Guantanamo in Cuba and a variety of other Government points. Class A style of wireless telegraph in field service has proven very valuable to the Regular Army and U. S. Navy. Descriptive printed matter about the variety of mechanisms made in this factory will be sent on application.



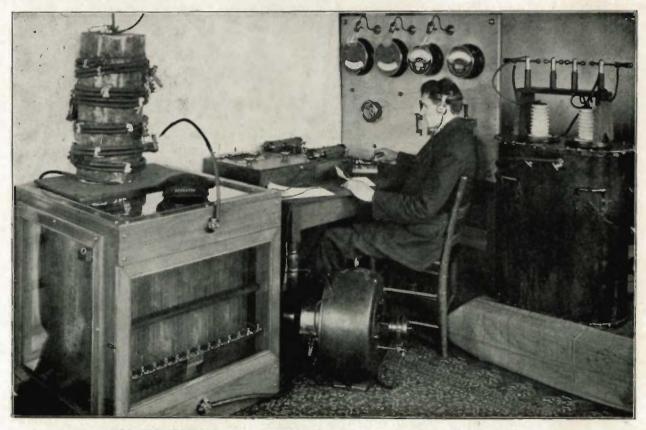
CLARK MOTOR GENERATOR SET WITH TRANSFORMERS, CONDENSERS AND OPERATING SWITCHBOARD

The Clark Wireless System was the first and only system to do a commercial wireless telegraph business on the Great Lakes



E

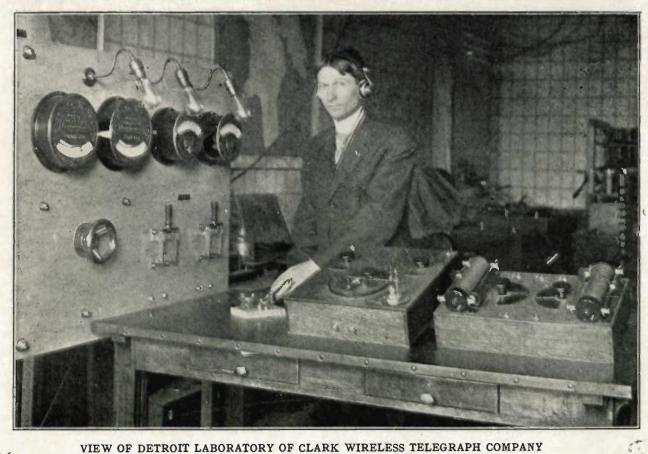
CLARK WIRELESS OUTFIT, SAGINAW, MICH., STATION AN IMPORTANT STATION IN THE ATLANTIC TO PACIFIC COAST SERVICE



INTERIOR VIEW CLARK WIRELESS TELEGRAPH STATION, BUFFALO, N. Y.



OPERATING ROOM, BAY CITY, MICH., STATION Installations of the Clark System are made promptly



VIEW OF DETROIT LABORATORY OF CLARK WIRELESS TELEGRAPH COMPANY

## THOMAS E. CLARK

Founder and Inventor of the Clark Wireless Telegraph Company



CLARK WIRELESS TELEGRAPH-TELEPHONE

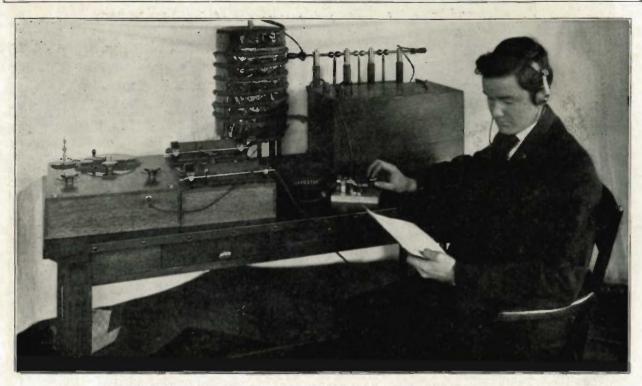
#### BRIEF SKETCH OF THOS. E. CLARK, THE INVENTOR AND FOUNDER OF THE CLARK SYSTEM WIRELESS TELEGRAPHY

Thos. E. Clark was born May 10, 1869. At the age of 15 he began the study of electrical engineering, putting the same to practical tests continuously from that date, bringing out numerous inventions and patents on wireless telegraphy. Commenced the manufacture of wireless telegraph instruments in 1898. Has employed his best efforts ever since working out details to commercialize and simplify wireless telegraph instruments, combining telephone and electric light engineering with the instruments, so as to develop the necessary features for space telegraphy in designing apparatus. The Clark system of wireless telegraph as a saleable apparatus was the first on the market in this country. The Clark apparatus is one of the pioneers in a commercial sense, there being over 200 sets of Junior type apparatus in use in colleges, universities and institutions giving instructions in wireless telegraph. The Japs purchased the Clark wireless apparatus in 1903. Clark has a system of Automatic Wireless Railroad Signaling. The inventor of Clark System Wireless Telegraph, is an associate member of the American Institute of Electrical Engineers.

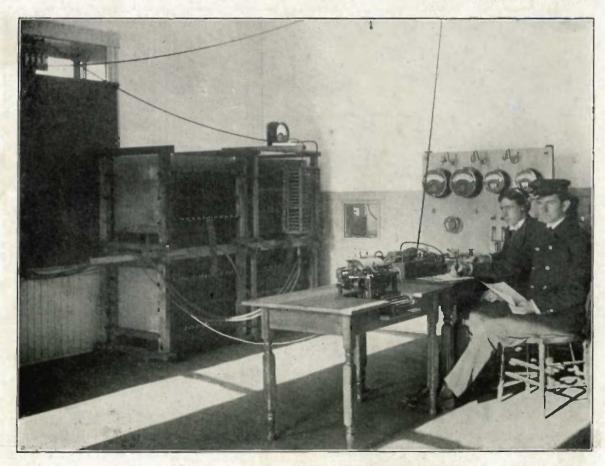


CLARK WIRELESS TELEGRAPH STATION, DETROIT, MICHIGAN. HAS BEEN IN COMMERCIAL OPERATION SINCE 1904

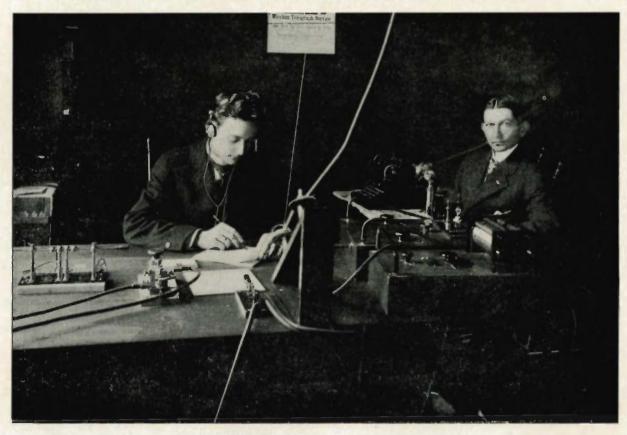
The Clark Wireless System is highly endorsed by the Lake Carriers Association, the strongest organization of its kind in the Shipping Interests



TYPE OF CLARK WIRELESS TELEGRAPH APPARATUS IN USE ON GREAT LAKE STEAMSHIPS

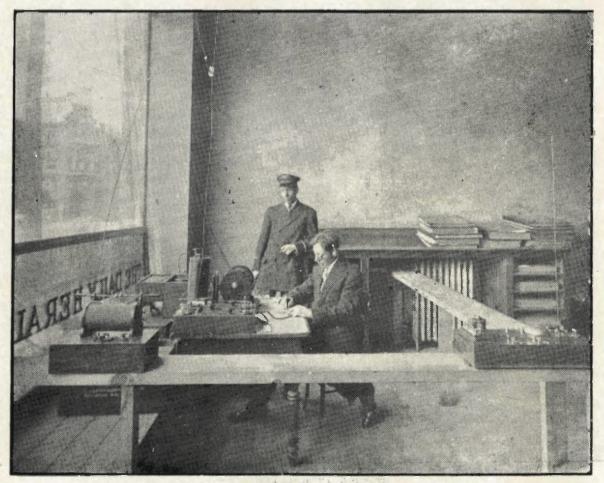


STATION AT CLEVELAND, OHIO, CLARK WIRELESS TELEGRAPH Capacity 10 K. W. This station has been in operation three years and has been improved every year



C

TOLEDO, OHIO STATION, ESTABLISHED IN 1907

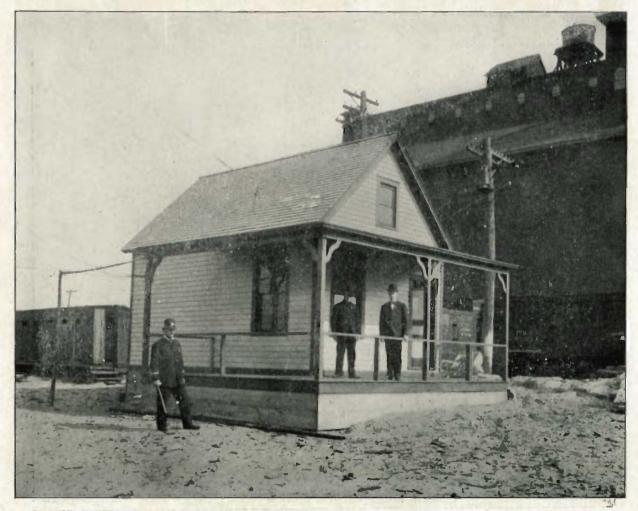


CLARK SYSTEM INSTALLED IN NEWSPAPER OFFICE



Clark Wireless Telegraph-Telephone

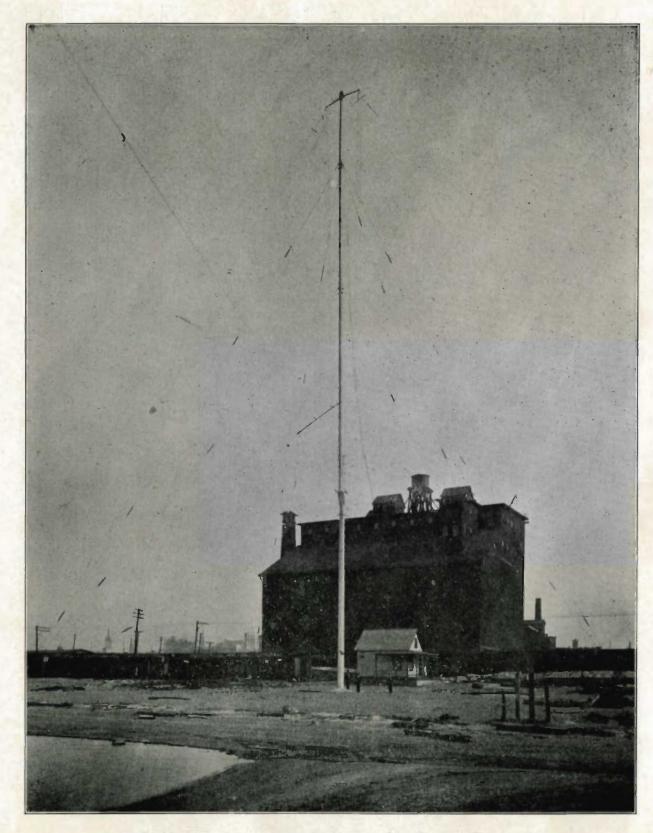
CLARK WIRELESS TELEGRAPH SYSTEM HAS PROVEN SUPERIOR TO ALL OTHERS FOR GREAT LAKES SERVICE



STATION AT BUFFALO, N. Y.

## STATION AT BUFFALO, N. Y.

C



Clark Wireless Telegraph Station, House and Mast

## The Pittsburgh Steamship Company Owns and Operates ONE HUNDRED AND FIVE VESSELS

And since the date of the letter following, The Clark Wireless System has been used reporting all of these ships

Pittsburgh Steamship Company.

ROCKEFELLER BUILDING.

Cleveland;

F. D. SMITH, CRIEF ENGINEER.

April 16, 1908.

Dear Sir ...

Replying to your letter of the 15th, we did considerable commercial business with the Clark Wireless Telegraph Company last season, especially between Cleveland and Detroit, and the service was much better than that weldid with the other telegraph Companies. We havn't any installations of the Clark Wireless on our vessels at present, but the matter is being considered. Personally I am considerably in favor of it.

Yours truly,

Chief Engineer.

States States States States

## CLARK WIRELESS

## The Only Means of Communication During Strike

THE BOURNE-FULLER CO. IRON, STEEL, PIG IRON, COKE.

Cleveland, Ohio. April 16, 1908.

PITTSBURG OFFICE, 1126-1127 FRICK BUILDING.

ACB-S

ALL AGREEMENTS CONTINGENT UPON STRIKES.

ACCIDENTS AND OTHER CAUSES BEYOND OUR CONTROL

PRICES SUBJECT TO CHANGE WITHOUT NOTICE.

Dear Sir:

This will acknowledge receipt of your letter of the 15th inst. with reference to service obtained through the Clark Wireless Telegraph Company.

It is true that we have given them some business, but this has been between Cleveland and Detroit, Michigan. As far as we can remember their service has been entirely satisfactory between these points. For sometime last year during the strike of the telegraph operators, this was our only means of connection between here and Detroit outside of the telephone service.

Yours truly,

THE BOURNE-FULLER COMPANY,

ORDER DEPARTMENT.

Dictated by ADAmme

P. W. HARVEY, PRESIDENT GEO.H.OLMSTED, 137 VICE PRESIDENT HARVEY D. GOULDER, CHAIRMAN OF BOARD

WM.WISNER WHITE, 2ND VICE PRESIDENT M.A.CRAIG, SECRETARY-TREASURER

# The Bankers Surety Company,

OF CLEVELAND, OHIO GENERAL SURETY AND BONDING BUSINESS CLEVELAND April 14, 1908.

Dear Sir:

We have your inquiry of the 13th instant relating to the service of the Clarke Wireless Telegraph service. We have used this service between Cleveland and Detroit and found the same effective; quite as good as either of the telegraph companies.

Yours very truly,

Secretary

W.

#### FRANK J. SULLIVAN

1502 ROCKEFELLER BLDG,

BELL TELEPHONE

REPRESENTING G. A. TOMLINSON, BULUTH D. SULLIVAN & CO., CBICAGO TOMLINSON & SULLIVAN, WINNERG, MANITOBA

CLEVELAND, O.

April 22, 1908

Dear Sir: -

I have your favor of the 14th inst., and have delayed answering same on account of my absence from the City. Last year the Clark Wireless Telegraph & Telephone Company reported the passages of our boats at Detroit and their services were very satisfactory in this respect.

Yours truly,

anti



CLARK WIRELESS STATION, ASHTABULA, O. HARBOR

## Clark Station Being Erected at Sault St. Marie, Mich.

The "Soo" is the most important marine point in the Great Lakes. It connects Lakes Superior and Huron, and during the season of navigation as many as 25,000 ships pass through the locks. The new Clark Station should handle most of this business because of the apidity and low toll rates of its wireless service.

ALL AGREEMENTS ARE CONTINGENT UPON STRIKES, ACCIDENTS AND OTHER DELAYS UNAVOIDABLE OR BEYOND OUR CONTROL.

# MANNING, MAXWELL & MOORE,

CHARLES A. MOORE, PRESIDENT. JOHN N. DERBY, VICE PRESIDENT. JAMES B. BRADY, VICE PRESIDENT. CHAS. A. MOORE.JR.VICE PRES. a SECY. C. M. CHESTER.JR., TREASURER

BIGAN MANE ADTE OD NEW YORK LOTTO

CABLE ADDRESS "COGNITION" AI. A. B. C. AND LIEBERS CODES USED

J.F. BARR,

RAILWAY AND MACHINISTS TOOLS AND SUPPLIES, ELECTRIC TRAVELING CRANES.

DETROIT, MICH.

MAIN OFFICE --85-87-89 LIBERTY STREET NEW YORK, BRANCHES BOSTON, MASS, CHICAGO, ILL. PHILADELPHIA, PA PITTSBURGH, PA. ST. LOUIS, MO. CLEVELAND, OHIO. SYRACUSE, NY. BIRMINGHAM, ALA. DETROIT, MICH. TOKIO, JAPAN, MEXICO CITY, MEX.

April,18, 1908.

Dear Sir:-

Replying to your favor of the 16th, regarding the Clark Wireless Telegraph service, beg to say, we used Clarks Wireless for a season between here and Cleveland, and the service was in in every way satisfactory. The rate being much cheaper and the service much quicker than the regular wire service. On one occasion, we telephoned a message to Clarks for Cleveland, they sent the message and telephoned a reply to us inside of 14 minutes. We consider it very efficient and satisfactory, and will use dt wherever possible. Yours very respectfully,

JFB/AS

b.

Manning, Maxwell & Moore, Inc.,

ALL AGREEMENTS CONTINGENT UPON STRIKES, ACCIDENTS OR OTHER CAUSES BEYOND OUR CONTROLS



## MORGAN & WRIGHT

MANUFACTURERS OF HARD AND SOFT

#### RUBBER GOODS

DETROIT, MICH.

CABLE ADDRESS:" MORGANWRIT, DETROIT CODES USED .: WESTERN UNION; ABC 41 EDITION: LIEBER'S; BEDFORD MENELL

April 20th, 1908'

Dear Sir :-

Answering yours of the 16th inst.; we have used the Clark Wireless Telegraph service and consider it entirely satisfactory. Our experience would indicate that a message can be handled more expeditiously and more economically by them between points they operate than by either of their competitors. even though the messages of necessity, are telephoned at each end.

Yours very truly.

MORGAN & WRIGHT

P-Y

The Pittsburgh Steamship Company, owned by the United States Steel Corporation, the largest Steamship Company in the world, owning 105 steel steamers, some of a tonnage of ten thousand, have been constant users of the Clark Wireless Telegraph System for reporting. Daily services for this great shipping concern alone is of a noteworthy volume.

## N.A.Hawkins & Company

Accountants

N.A.HAWKINS FRED T GIES & ASSOCIATES

April 20, 1908

New York Chicago Detroit Toledo

AUDITS - APPRAISALS - SYSTEMS

Dear Sir: -

Answering your inquiry of the 16th instant, we beg to state that we have used the Clark Wireless Telegraph service and have found same extremly prompt and satisfactory.

Yours very truly,

N. A. Hawkins & Company, Tred 7, Brez C.P.A.



Clark Wireless Telegraph Station, Port Huron, Mich. Capacity 10 K. W. Thousands of vessel passages have been reported by this station. It is in daily communication with Buffalo, N. Y., 200 miles overland

ALL CONTRACTS MADE CONTINGENT UPON STRIKES. FIRE. ACCIDENT OR CAUSES BEYOND OUR CONTROL

H. C. MASTERS, PRES.

W. J. GRANGER, VICE-PRES.

C. F. MULLEN, SEC'Y & TREAD.

## The Masters & Mullen Construction Co

MEMBER BUILDERS EXCHANGE

Reinforced Concrete and Fireproofing

CONCRETE BUILDINGS, FOUNDATIONS, WALKS FLOORS, PAVEMENTS. BRIDGES

> 452-4 Rose Building Cleveland, O.April, 21st. 1908.

Dear Sir:-

Re to Clark Wireless.

Your favor of the 16th. refering to the Clark Wireless Telegraph System received several days past.

We have had occasion at various times to use the Clark Wireless Telegraph System between this city and Detroit, and have invariably found the service very satisfactory.

Yours very truly,

The Masters & Mullen Const. Co.

Per C. A. Mullen

Sec 'y. & Treas.

### A Partial List of Patrons who Have Used the Clark Wireless Telegraph Service between Detroit, Toledo, Port Huron, Cleveland and Buffalo

Acme Steamship Co., Duluth, Minn. Anchor Line-Erie & Western Transportation Co., Buffalo, N. Y. Bassett-Presley Co., Cleveland, Ohio. Booth & Co., A., Buffalo, N. Y. Booth & Co., A., Detroit, Mich. Booth & Co., A., Cleveland, Ohio. Buhl Sons Co., Detroit, Mich. Bourne-Fuller & Co., Hickex Bldg., Cleveland, Ohio. Burton, Beidler & Phillips Co., Citizen's Trust Building, Cleveland, O. Boland, Jno. T. & Co., Buffalo, N. Y. Brown Lake Transit Co., Harvey H., Cleveland, Ohio. Brown Co., H. J., Cleveland, Ohio. Boston Coal Dock & Wharf Co., Cleveland, Ohio. Buffalo Dry Dock Co., Buffalo, N. Y. Brown, Cullen, Detroit, Mich. Bostwick-Braun Co., The, Toledo, Ohio. Bradley, M. A., Cleveland, O. Brion, Capt. J. W., Perry Payne Bldg., Cleveland, O. Brown, H. M., Chamber of Commerce Building, Buffalo, N. Y. Brown Hoisting Machine Co., Cleveland, O. Corrigan McKinney Co., Cleveland, O. Corrigan, James, Cleveland, O. Cleveland & Buffalo Transportation Co., Cleveland. O. Calumet Transit Co., Cleveland, O. Cleveland Cliffs Iron Co., Cleveland, O. J. H. Sheadle, Sec'y. Cambria Steamship Co., Cleveland, O. C. & B. Steamboat Co., Cleveland, O. C. & B. Steamboat Co., Buffalo, N. Y. Fisher, G. F. A. Duff & Gatfield, Lime Kiln Crossing, Amherstburg, Ont. Davock, Wm. B., Vessel Owner, Cleveland, O. D. & C. Navigation Co., Detroit, Mich. P. H. McMillan, Pres. A. A. Schantz, Gen'l Mgr. D. & C. Navigation Co., Cleveland, O. D. C. McIntyre, G. F. & T. Mgr. G. H. Higgs, P. & T. Agt. Wm. F. Milby, Agt. Detroit & Buffalo Transportation Co., Detroit, Mich. P. H. McMillan, Vice Pres. A. A. Schantz, Gen'l Mgr. Davidson Stéamship Co., Rockefeller Bldg., Cleveland, O. D. & B. Steamboat Co., Buffalo, N. Y. C. L. Perkins, G. F. A. Farrow, Harry A., Rockefeller Bldg., Cleveland, O. Franklin Transit Co. Cleveland O. Great Lakes Engineering Works, Detroit, Mich. Great Lakes & St. Lawrence Transit Co., Chicago, Ill. Great Lakes Towing Co., 503-515 Rockefeller Bldg., Cleveland, O. Capt. Ed. Smith, Pres., Buffalo, N. Y. Great Lakes Towing Co. Toledo, O. Great Lakes Towing Co., Detroit, Mich. Gilchrist, F. W., Alpena, Mich. Gulennst, F. W., Alpena, Mich. Gilchrist Transportation Co., Cleveland, O. Grant-Lees. & Co., Quincy Ave., Cleveland, O. Gens Run Coal Co., Cleveland, O. Goulder, Holding & Masten, Cleveland, O. Hall, J. B., Buffalo, N. Y., 46 Dun Bldg. Hawgood & Co., W. A., Cleveland, O. Hoyt, Dustin & Kelley, Western Reserve Bldg., Cleveland, O. Hutchingen & Co. Bockefolius Ridg. Cleveland, O. Hutchinson & Co., Rockefeller Bldg., Cleveland, O. Hopkins Steamship Co., Cleveland, O. Hazzard, W. W., Schofield Bldg., Cleveland, O. Hanna & Co., M. A., Cleveland, O. Huron Barge Co., Cleveland, O. Halcomb Steel Co., Cleveland, O. Inter-Lake Steamship Co., Cleveland, O. Jewett, Bigelow & Brooks, 1109 Penobscot Bldg., Detroit, Mich. Jenkins Steamship Co., Cleveland O. Kelly Island Line & Transportation Co. Cleveland, O. Kinsman Transit Co., Cleveland, O. Leidich. C., 400 Chamber of Commerce Detroit, Mich

Livingstone, Wm., Vessel Owner, Detroit, Mich. Pres. Lake Carriers' Association, Detroit, Mich. Lake Erie Ore Co., Rockefeller Bldg., Cleveland, O. Lake Erie Transportation Co., Cleveland, O. Lackawanna Steel Co., Buffalo, N. Y. John N. Allen, Mgr. John N. Allen, Mgr. Lake Erie Iron Co. Cleveland, O. MeVittie, Walter, 607 Stevens Bldg., Detroit, Mich. MeMoran, H., Port Huron, Mich. Vessel Owner. McArthur, Jno., Agent D. & C. Nav. Co., Toledo, O. Minch & Nichols Transportation Co., Cleveland, O. Mitchell, Capt John, Rockcfeller Bldg., Cleveland, O. Morrison, Frank, D. & C. Bldg., Cleveland, O. Mahoning Steamship Co., Cleveland, O. Matine Review, Browning Bldg., Cleveland, O. Marine Review, Browning Bldg., Cleveland, O. Mesba Steamship Co., Cleveland, O. Mark Hanna Transportation Co., Clevelaad, O. Michigan Steamship Co., Detroit, Mich Mutual Transit Co., Buffalo, N. Y. Minnesota Dock Co., Buffalo, N. Y. W. E. Chilson, Supt. W. E. Chilson, Supt. Morrison, T. C., D. & C. Bldg., Cleveland, O. Northwestern Transportation Co., Cleveland, O. National Steamship Co., Detroit, Mich. Nipigon Transit Co., Detroit, Mich. Nancy & Hynd, Western Reserve Bldg., Cleveland, O. Oglebay Norton Co., 803 Superior Ave. N. W., Cleveland, O. Owen Transit Co., Detroit, Mich. R. T. Gray, Manager. Ohio Steamship Co., Cleveland, O. Otis Steel Co., 3131 Lakeside Ave., Cleveland; O. Pittsburgh Steamship Co., Cleveland, O. H. Coulby, Pres. & Gen'l Mgr. F. B. Smith, Superintending Engineer. Presque Isle Transportation Co., Cleveland, O. Peavy Steamship Co., Duluth. Minn. Parry Jones, R., Perry Payne Bldg., Cleveland, O. Pickands, Mather & Co., Western Reserve Bldg., Cleveland O. Mr. Dalton, Gen'l Mgr. Mr. Canfield, Traffic Mgr. Penton Publishing Co., Cleveland, O. John Penton, Pres. Parker Marine Reporting Co., Foot 1st St., Detroit, Mich. Pulling & Co., W. J., Windsor, Ont. Provident Steamship Co., Duluth, Minn. Parker Bros., Ltd., 15 Atwater West, Detroit, Mich. Parker Charter & Marine Reporting Co., Ft. Cass Ave., Detroit, Mich. Richardson Transportation Co., Cleveland, O. Richardson, W. C., Cleveland, O. Republie Iron & Steel Co., Cleveland, O. Republic Iron Co., Cleveland, O. Stewart Transportation Co., White Star Line Office, Cleveland, O. Smith, Capt. Ed., 45 Dun Bldg., Buffalo, N. Y. Star Cole Line, 21 Atwater W., Detroit, Mich. A. R. Lee, W. J. Farasey. Shaw, Warren, Cady & Oakes, Detroit, Mich. Shenango Steamship Co., Cleveland, O. Seneca Transportation Co., Buffalo, N. Y. Tomilson Fleet. G. A., Duluth, Minn. U. S. Transportation Co., Cleveland, O. Shenango Steamship Co., Cleveland, O. Seneca Transportation Co., Buffalo, N. Y. Tomilson Fleet, G. A., Duluth, Minn. U. S. Transportation Co., Cleveland, O. Upson Nut Co., 607 Garfield Bldg., Cleveland, O Vulcan Transportation Co., Cleveland, O. Vulcan Transportation Co., Cleveland, O. Waldo, L. C., 15 S. Atwater St. Detroit, Mich. Westcott, J. W., Marine Reporter, Detroit, Mich. Wilson Transit Co., Cleveland, O. Western Transit Co., Buffalo, N. Y. Wolvrin, A. B., Duluth, Minn. Wolverine Steamship Co., Detroit, Mich. Wineman, Henry, 45 Buhl Block, Detroit, Mich. Westcott, J. W., Detroit, Mich.



## Insurance Department

CHICAGO, ILL. Nov. 11, 1907

35

Mr. Charles M. Zion, Lebanon, Indiana.

Dear Sir:-

You will recall while in your office one day last week that a representative of the Pacific Wireless Telegraph was introduced to you. Their representative came to the office on Friday and invited me to inspect their station on Ainsley Av. and Sheridan Road. Yesterday afternoon I went out to see this wonder. I had a man with me who is somewhat familiar with telegraphic matters. The station is simple of construction and wonderful in execution. A few moments after I stepped into the station a gentleman came in and asked that a telegram be sent to Milwaukee to his wife who was visiting in that city. The message was written out and sent. The Milwaukee operator called up the party on the telephone and delivered the message and received a reply, and it was delivered to the sender in fourteen minutes.

I have no doubt in my mind that the whole country will be covered with these telegraph towers in the course of the next two or three years. I feel sure that it will warrant Dr. Green, Mr. Hoffman or anyone else who is interested in a good investment, to come to the city and visit the station. I should be delighted indeed if Lebanon could be one of the very first cities in Indiana to have a wireless telegraph station. It would direct attention to us; it would give us means of cheap communication, and give employment to another one of our citizens. I think it would be well to agitate the matter; call in a few of the friends. While it is true that money matters are tight, yet for an investment like this, it seems to me that in the course of a few weeks or months at least, money could be raised to establish a wireless station.

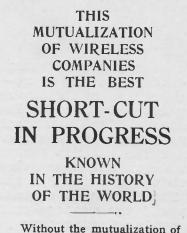
Yours very truly.

neaf.

## NEW YORK CITY STATION

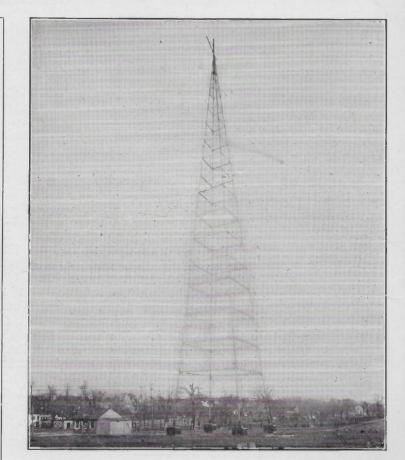
## Pacific Wireless Telegraph Company

Wireless electrical transmission of intelligence is known to the whole world. Delay is a thing of the past. Speed in communication is one of the best assets of civilization. Owing to the prominence of the location of its stations the Pacific Wireless Telegraph Company has been an important factor in the march of American progress and indisputably a public servant of rare worth. Stations at Catalina Island, Los Angeles and San Francisco, Seattle, Port Townsend, Fort Casey, Friday Harbor and Victoria B. C., have conserved the public good in shipping interests, lightened and made happy many hearts in bringing word to loved ones ashore and proved a superhuman agent in the saving of lives at sea. With the stations of the Massie Wireless Telegraph Company in the East, the Clark Wireless Telegraph-Telephone Company in the Great Lakes district and Middle West, the Pacific stations of the Pacific Coast and the far West, and the Collins Wireless Telegraph Company, the Continental Company will make possible the long heralded but never before permanently accomplished transmission of intelligence wirelessly from the Atlantic to the Pacific Coast.



Without the mutualization of the Pacific, Clark and Massie Wireless Telegraph and the Wireless Telephone interests trans-continental service would be impossible.

With the combined and joint service years of commercial struggle are eliminated and the public is given at once a service for communication from East to West and North to South and on inland and boundary waters that would take years for a single individual company to bring about.

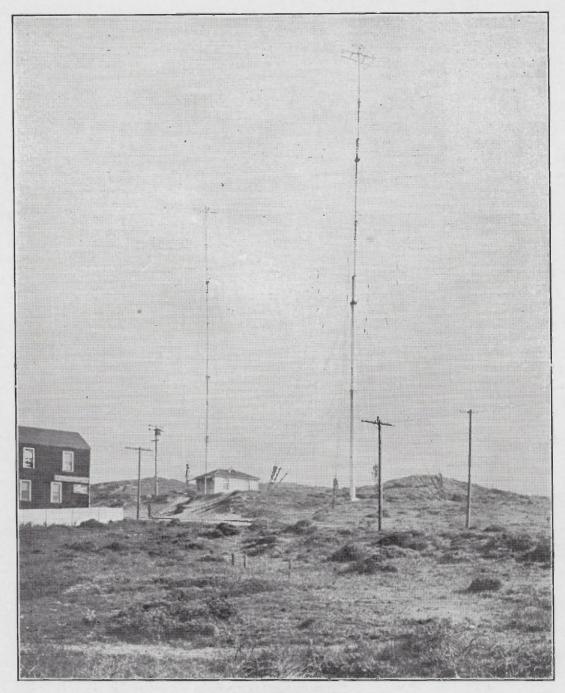


PACIFIC WIRELESS TELEGRAPH STATION, 170TH STREET AND JEROME AVENUE, MANHATTAN

### THE PACIFIC—

Has been established for eight years.

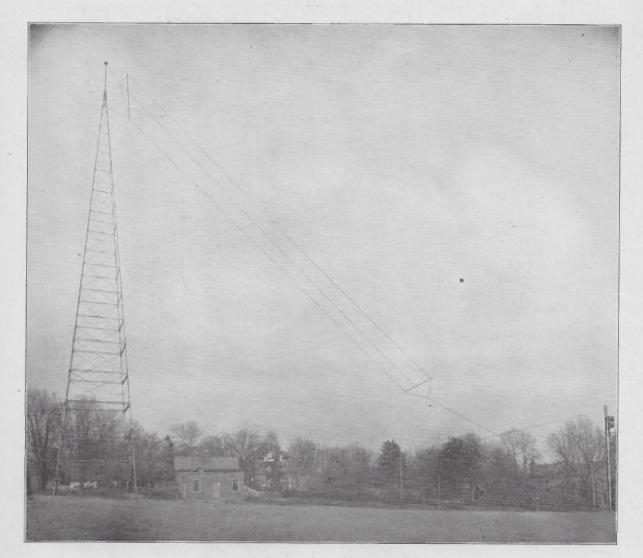
Has a speed of 186,000 miles per second—Five times that of wire systems. Has indisputable references from officials in the Army, Navy, Railroads, Banks and Men high in scientific as well as commercial circles.



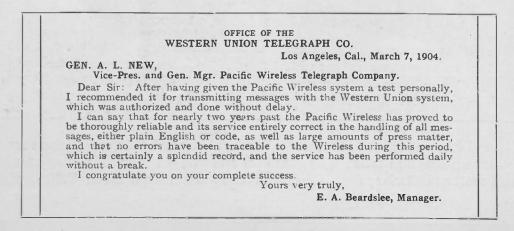
SAN FRANCISCO STATION

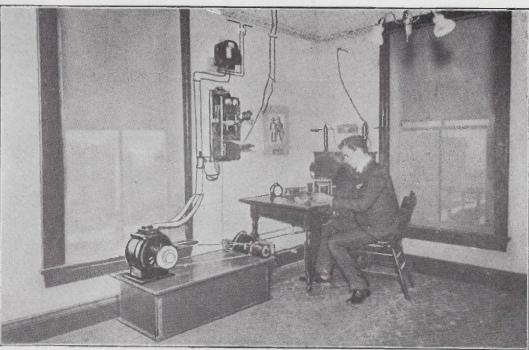
The Long Distance Station of the Pacific Wireless Telegraph Company at San Francisco will establish communication with Honolulu and with all steamship lines as well as with all coast and interior points. The Golden Gate will connect with New York by wireless by way of Salt Lake City, Omaha, Toledo and Buffalo, making coast to coast service

# PHILADELPHIA STATION

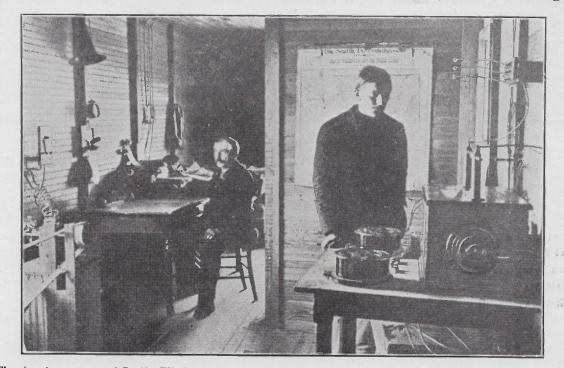


CHESTNUT HILL STATION OF THE PACIFIC WIRELESS





Operating room of the Pacific Wireless Telegraph Long Distance Station on Queen Ann Hill, Seattle, Washington.

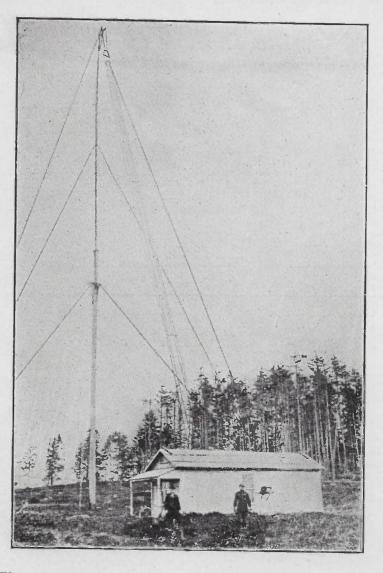


Operating Room in U. S. Government Station, Fort Casey, Whidby Island, Washington

Showing Army man and Pacific Wireless Telegraph operator at their work of receiving and transmitting wireless messages.

## SEATTLE, WASH., STATION

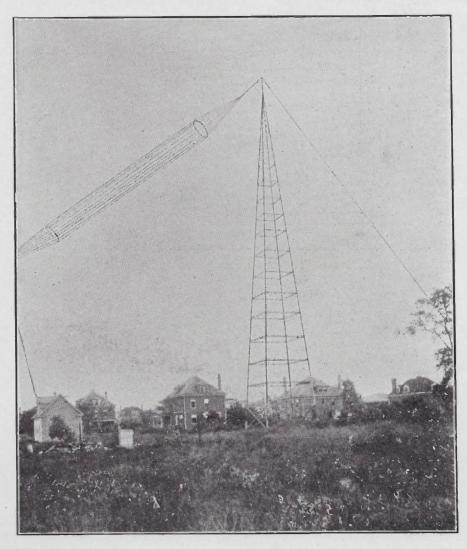
# GOVERNMENT STATION, FORT CASEY, WASH.



The Pacific Wireless System does business successfully under all conditions sending and receiving press reports and plain and code messages from stock brokers and business houses with absolute accuracy and far greater speed than the wire systems. The U. S. Government has used the Pacific System between Fort Casey, Wash., Port Townsend and Friday Harbor, Wash., and on the U. S. Revenue Cutter "Grant" and other American ships; between San Pedro, Cal. and Avalon, between Victoria, B. C. and Seattle, Wash., and other stations on Puget Sound.

# CHICAGO STATION

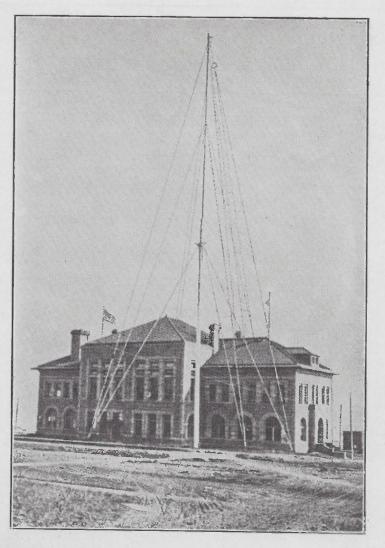
# This Station Will Be Operating With New York in the Near Future



STEEL TOWER, 200 FEET HIGH, AINSLEE AVENUE STATION, CHICAGO, ILL.

The Chicago station of the Pacific Wireless Telegraph Company was erected to take care of the large future volume of business that will result from the trans-continental service. Considerable business has been handled at this point, principally with Milwaukee, and the equipment is designed for an important relay point and it is anticipated that with the new combination of interests it will be worked to its capacity.



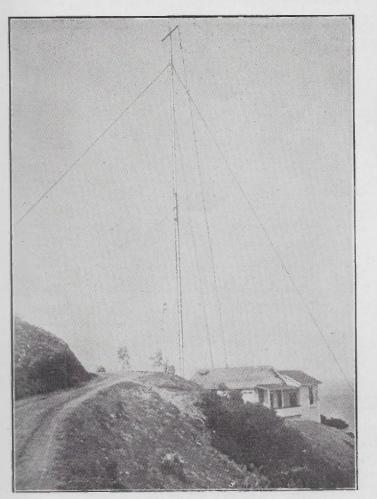


COMBINED GOVERNMENT AND COMMERCIAL STATION

# U. S. CUSTOM HOUSE, PORT TOWNSEND, WASHINGTON

International transmission has been accomplished at this important point and shipping interests are served with a dispatch that in a former day would have seemed miraculous

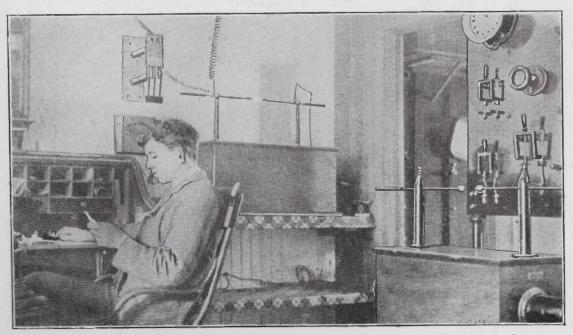




A CALIFORNIA STATION

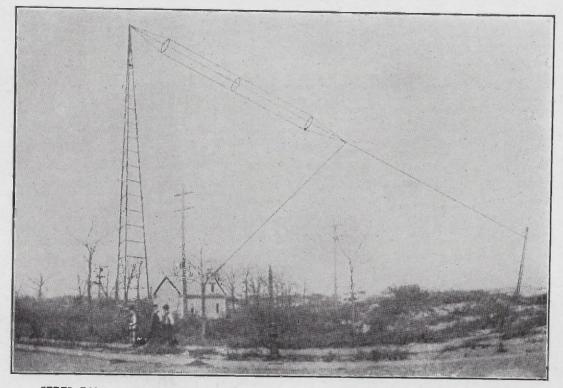
Blizzards Cannot Obstruct Wireless Transmission

Messages Sent Without Interruption or Error Regardless of Weather



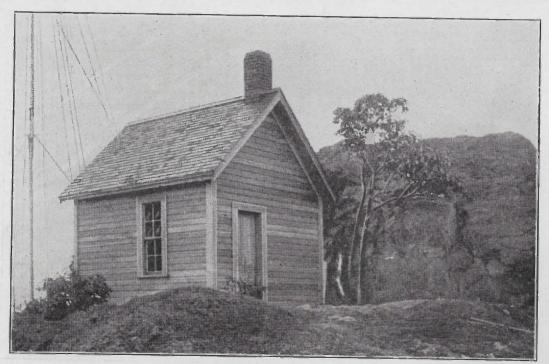
INTERIOR VIEW OF LOCAL STATION OF THE PACIFIC WIRELESS TELEGRAPH CO.

# MILWAUKEE, WIS., STATION

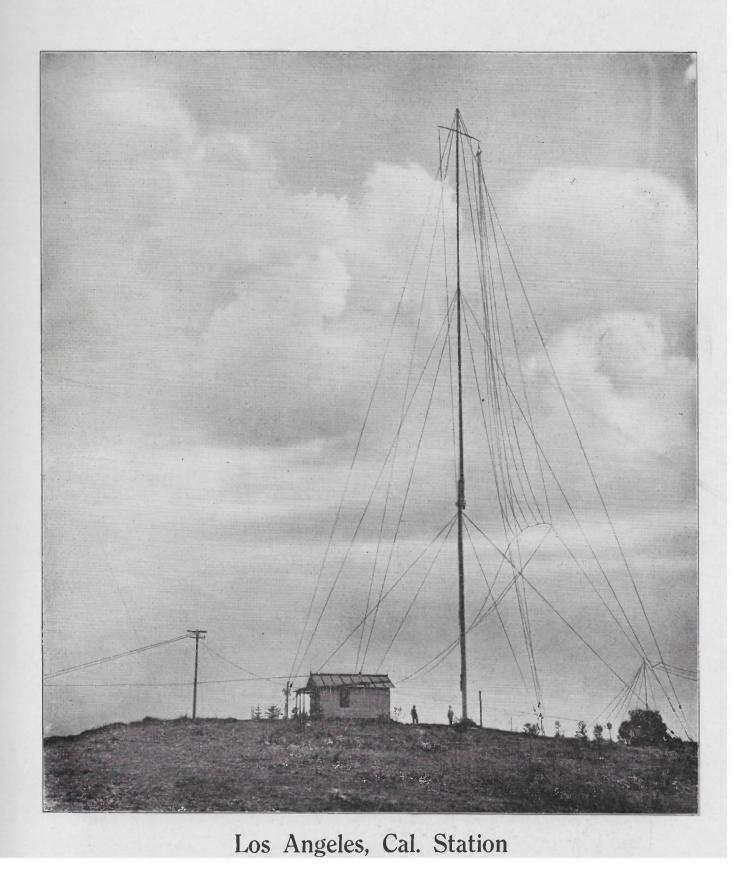


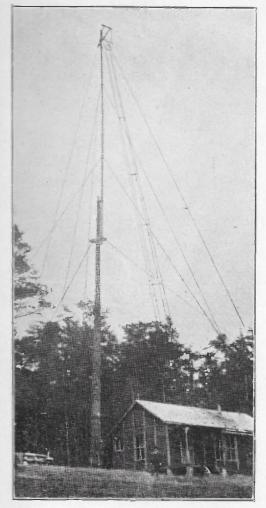
STEEL TOWER 200 FEET HIGH, DUPLICATE OF AINSLEE AVE. STATION, CHICAGO, ILL.

The Milwaukee station operating with Chicago and steamship lines furnished uninterrupted service as can be seen by the endorsements from the Mayor of Milwaukee and prominent railroad and commercial men in these cities.



GENERATING PLANT OF THE PACIFIC WIRELESS TELEGRAPH COMPANY ON DOUGLAS ROCK, VICTORIA, B. C.

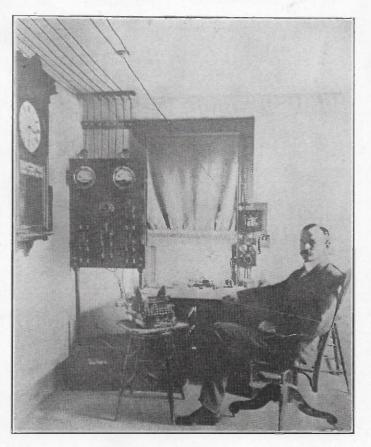


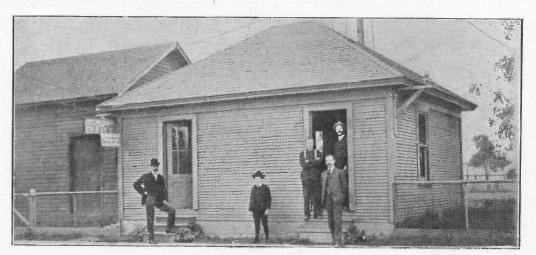


46

The Above is a Government Station from which the Pacific Received Toll for Three Years

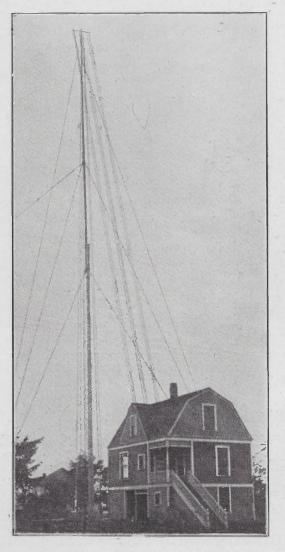
Operating Room, Pacific Wireless Station, San Pedro, Cal.



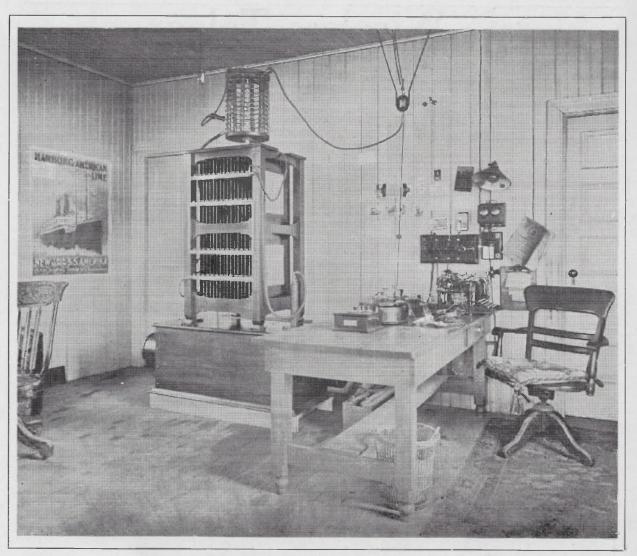


PACIFIC STATION AT SAN PEDRO, CAL. This station connects with Catalina Islands, Los Angeles, and San Francisco.

Seattle is the New York City of the West and our Station at this point will transmit, relay and receive messages as far north as Alaska and as far South as San Francisco. Ships lying in Puget Sound easily receive messages from San Francisco, a distance of 1000 miles.



LONG DISTANCE STATION, QUEEN ANNE HILL, SEATTLE, WASH.



INTERIOR OF SAN FRANCISCO STATION

The importance of the San Francisco Station for future foreign development of the wireless business is recognized, consequently its equipment is adequate for possible great demands. Pacific Coast stations are destined for future operations with Honolulu, Japan, Hong Kong, Philippine Islands and Australia



# Massie Wireless Telegraph Company



WALTER W. MASSIE MECHANICAL AND ELECTRICAL ENGINEER Inventor of the Massie System of Wireless Telegraphy VICE-PRESIDENT Continental Wireless Telephone and Telegraph Co.

# Massie Wireless Telegraph Co.

ALTER WENTWORTH MASSIE was born in Providence. R. I., December 15, 1874. After a thorough course at the public schools of Providence he took up mechanical and civil engineering at Tuft's College and Brown University. His systematic investigation of the wireless art began in 1896 and he has brought out for general benefit the present efficient Massie Wireless Telegraph System. While General Manager of the Massie Company, in 1906, he secured control of the Marine Transmission Company, and subsequently the Bureau of Marine Intelligence was organized. Massie was elected president of these three companies.

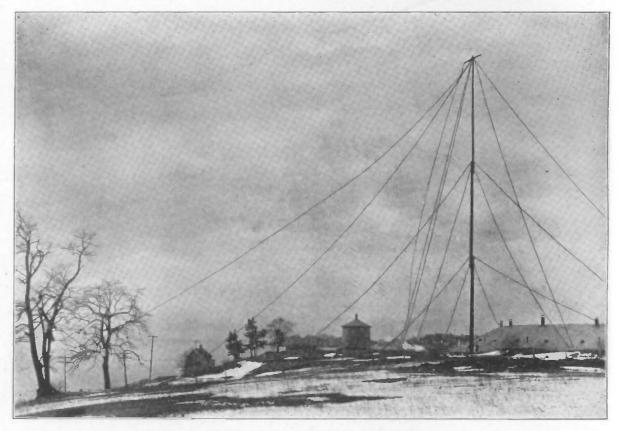
It is pleasing to note that Massie is another of the Continental's practical scientists possessing an untarnished reputation and a standing both in commercial and social circles that is absolutely irreproachable. The Massie Company records are clean and its management is exemplary, showing how a wireless business may be conducted on a paying basis by adhering strictly to legitimate business methods. Mr. Massie is co-author of the instructive volume, "Wireless Telegraphy and Telephony."

NE of the most useful companies now in existence is the Massie. Its stations in the East are at Pt. Judith, R. I., Chatham, Mass., New London, Conn., Block Island, R. I., Wilson Point, Conn., and Cape May, N. J. The U. S. Navy Service, equipped with Massie instruments, in daily use has stations at Cape Henlopen, Del., Beaufort, N. C., Charleston, N. C. and many other locations. On steamships and in reporting vessels on the Atlantic Coast the Massie Company has immense wireless business, increasing every year and of continuous satisfaction to its many patrons. Massie's success in the wireless field is not alone due to his theoretical and practical knowledge, which is voluminous but also to his adaptability. His intimate knowledge of wireless telegraphy and his mechanical ingenuity has enabled him to devise a simple, strong, compact and thoroughly reliable wireless machine that meets every requirement made of it. Different from many inventions in this line Massie builds and operates his electro-mechanisms first and then applies for governmental protection. He is an officer and a director of the Continental Company, and in the technical and mechanical directorate will prove invaluable.

The Massie System is in use on the steamers of the Fall River Line, New Bedford Line, Providence Line and New London Line of the New York, New Haven and Hartford Railroad Company, where it has demonstrated its ability to work three hundred and sixty-five days a year and through all kinds of weather, thunder storms eluded. The United States Navy is using it at several of its stations and the War Department has the Massie Portable apparatus in use. Sets for work in the Philippines and other tropical climates have been supplied to the U.S. Government. In all the stations of the Marine Transmission Co., and by a number of boat companies not mentioned here the Massie instruments have found instant and continued favor on account of their superiority and utility.

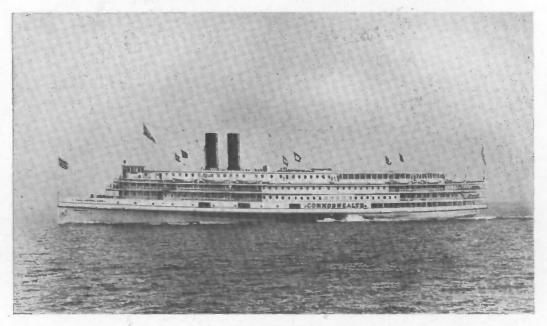


Eastern Passenger Steamships Enjoy the Benefit of the Massie System

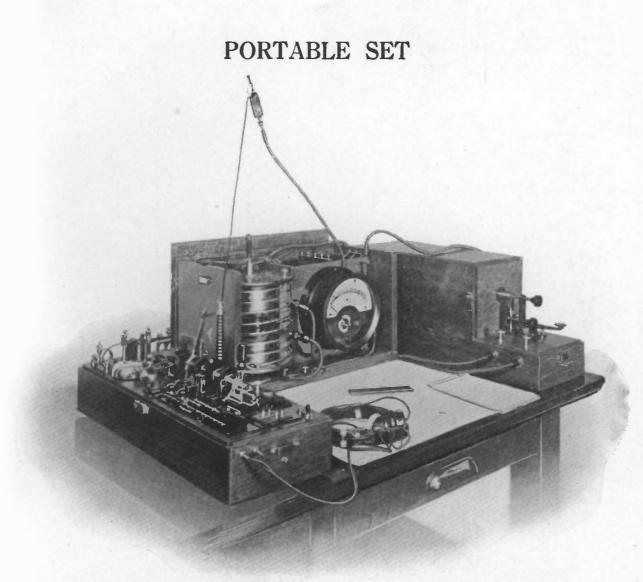


MASSIE STATION, WILSON POINT, CONN.

# A Floating Palace of the N. Y., N. H. & H. R. R. Equipped with the Massie Wireless Service



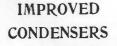
STEAMER COMMONWEALTH



DESIGNED FOR SIGNAL CORPS, U. S. A.

The Massie detector is an auto-coherer of the steel and carbon type and owing to its remarkable character of constancy it will work through all kinds of interference without failure, and at the same time it will receive over greater distances than any other.

Massie instruments have worked continuously since installation through all kinds of weather. Lightning discharges produce only a slight click in the oscillaphone and do not affect or throw it out of adjustment to the slightest degree. Boats and stations have worked successfully with thunder storms directly between them.



The Massie System uses patented plate devices which has demonstrated its efficiency and long life. Not one plate has been broken or destroyed, some in prime condition being now in active operation eighteen months.

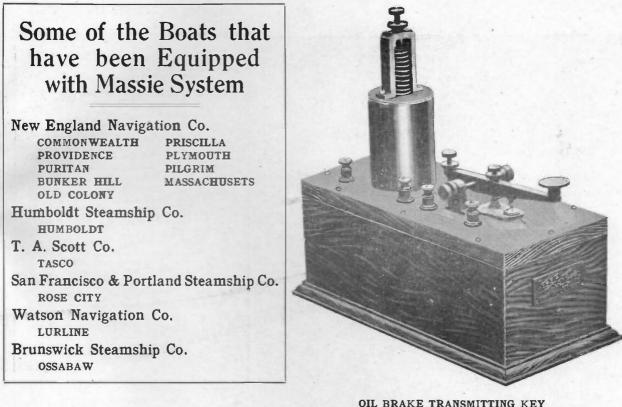
Transmitting apparatuses are all on the same general lines, the difference being in design. Massie proved that the circular form of Leyden jar battery or condenser was not satisfactory because its life was short and its cost high.

CONDENSER WITH INDUCTANCE AND SPARK CAP-MASSIE WIRELESS TELE-GRAPH SYSTEM

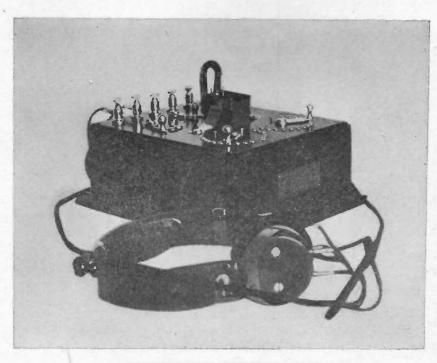
## PORTABLE RECEIVERS



Designed for Coast and Geodetic Survey, Department of Commerce and Labor, for use in the Philippine Islands



OIL BRAKE TRANSMITTING KEY For Large Station Sets

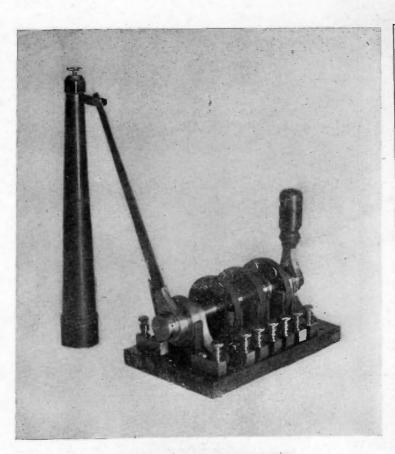


OSCILLAPHONE RECEIVING OUTFIT

The Marine Transmission Co., operating the Massie Wireless Telegraph System

A FEW OF THE PATRONS

Tacoma Tug & Barge Co. North Pacific Steamship Co. Inland Navigation Co. Watson Navigation Co. New England Navigation Co. U. S. Transportation Co. Pacific Mail Steamship Co.



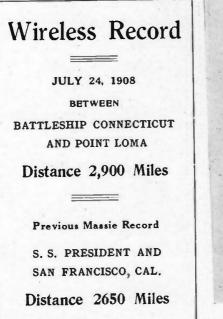
MASSIE CONTROLLING DEVICE

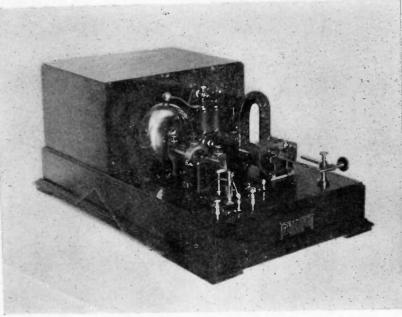
## Bureau of Marine Intelligence

This institution associated with the Massie Wireless Telegraph Co. and the Marine Transmission Co., reports passing ressels.

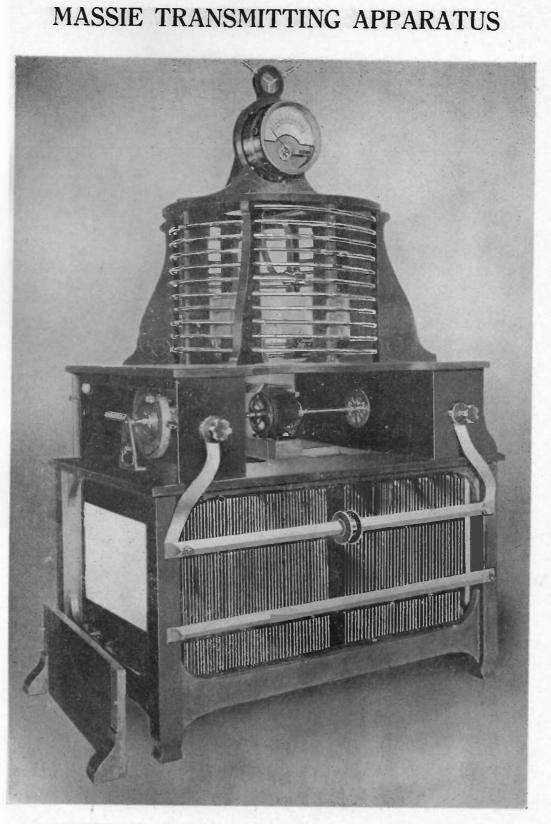
#### SOME OF THE PATRONS

American Touring & Lightering Co. Atlantic Coast Lumber Corp. Baltimore and Boston Barge Co. Brunswick Steamship Co. Cook Cummer Steamship Co. Delaware, Lackawanna and Western R. R. Dickson & Eddy. Donald Steamship Co. Eastern Coal Co. R. R. Freeman. Gilbert Transportation Co. B. F. Hanfield. J. A. Horsay & Son. Jas, E. Hughes. Hughes Transportation Line. F. L. V. Jones. Keeler Transportation Line. Lehigh Valley R. R. Co. Luckenback Wrecking and Touring Co. Moran Touring and Transportation Co. Merchants and Miners Transportation Co. Merrit Chapman D. & W. Co. New England Transportation Co. New England Navigation Co. Providence Coal Co. Robinson, Baxter & Dissoway Trans. Co. T. A. Scott Co. Scully Touring and Trans. Line. Susquehanna Coal Co. Thames Tow Boat Co. Enterprise Transportation Co. The Texas Co. White Oak Transportation Co.





SIGNAL ALARM

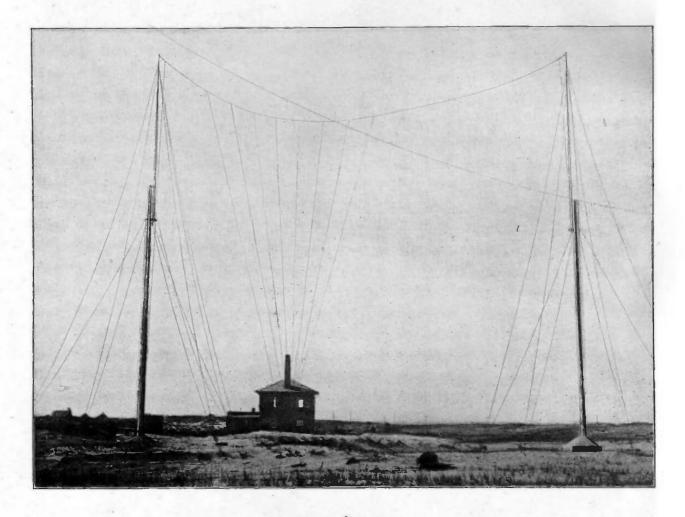


HELIX, PLATE CONDENSER, HOT WIRE AMMETER AND ANCHOR GAP

Massie Wireless Telegraph Co.

## CAPE HENLOPEN, DELAWARE

Equipped with the Massie Wireless Telegraph System

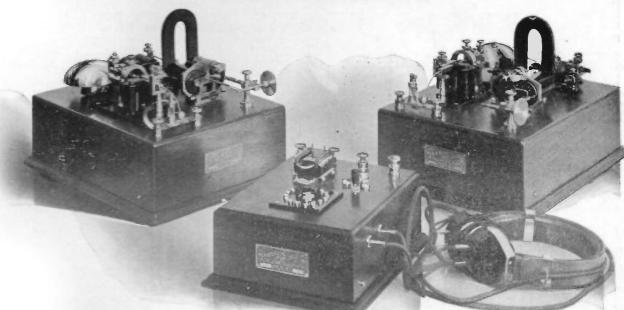


# MARINE TRANSMISSION CO.

The Marine Transmission Company was acquired by the Massie Wireless Telegraph Company, for the purpose of separating lease work from contract work. It is absolutely controlled by the Massie Company, which holds the entire amount of stock issued.

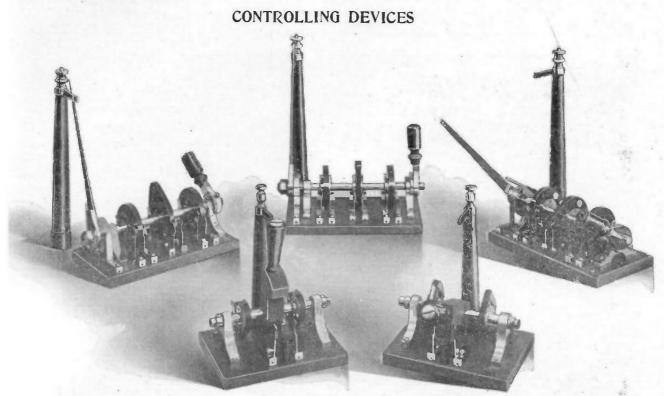


ALARM SETS AND OSCILLAPHONE



#### THE ALARMS

The task of the wireless telegraph operation calls for patience, sobriety and endurance. With the Bell Alarm, a strong feature of the Massie System the wireless operator is relieved from the tedious task of "listening in" for twenty-four hours a day. A station in normal condition has the alarm in circuit ready to respond to the first signal received. A new type of coherer, simple in construction and efficient in its work operates this useful signal. This is but one of the many improvements in devices and mechanism originated by Walter W. Massie.



CONTROLLING SWITCH

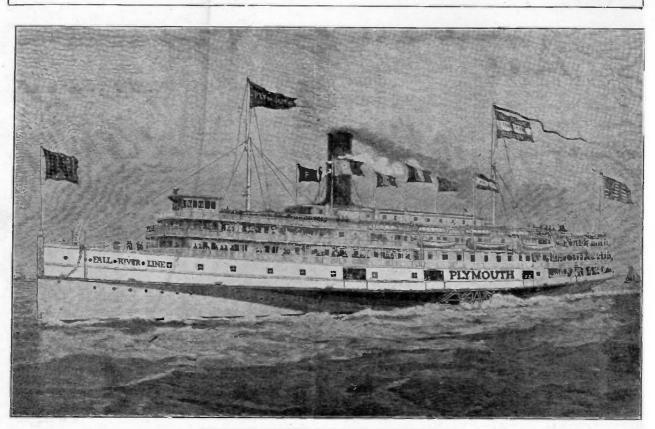
Massie's controlling switch protects the operator while receiving messages, and the receivers when messages are being sent. All circuits of the system are controlled by this single piece of mechanism, a simple movement of the handle changing the system from sending to receiving or from receiving to sending.

# WIRELESS PREVENTS ACCIDENTS

The fleet of the Fall River Line, Passenger Service, consists of five superb steamers: Commonwealth, Plymouth, Priscilla, Puritan and Providence. They are fast, safe and most splendidly equipped.

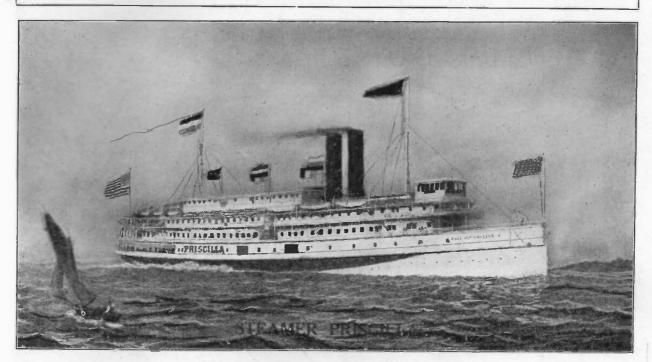
It adds greatly to the comfort of passengers to know that the Massie Wireless is always on guard and that communication with land or other ships can be had night or day.

The same protection is also enjoyed by the Providence Line, New Bedford Line, the New London Line and other passenger and freight carrying steamship lines.

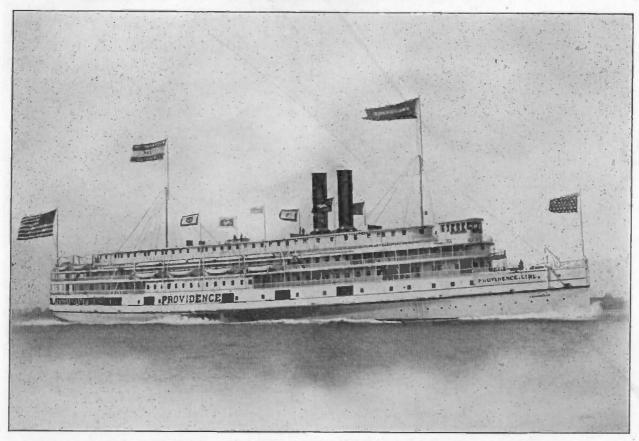


STEAMER PLYMOUTH, FALL RIVER LINE

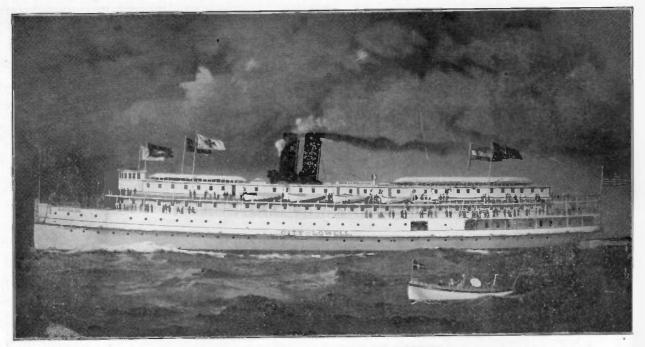
# SAFEGUARDED BY WIRELESS



STEAMER PRISCILLA, FALL RIVER LINE

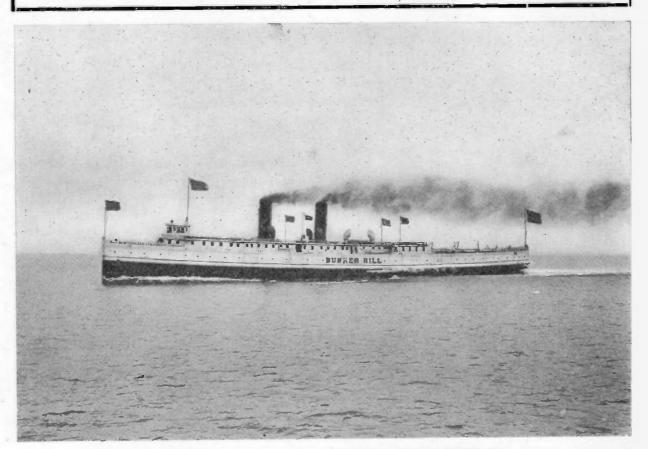


STEAMER PROVIDENCE, FALL RIVER LINE, OPERATED FOR PASSENGER AND FREIGHT SERVICE

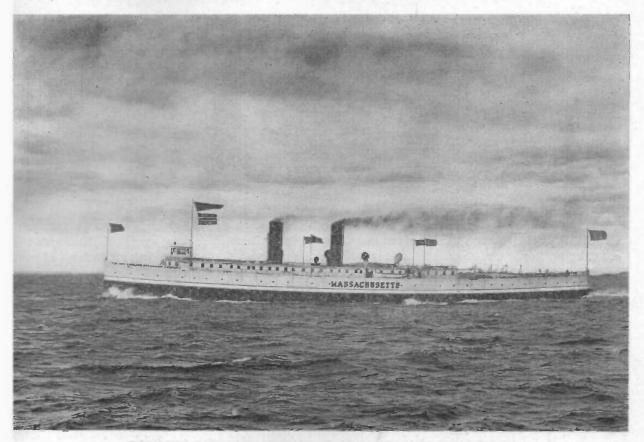


PASSENGER STEAMER CITY OF LOWELL

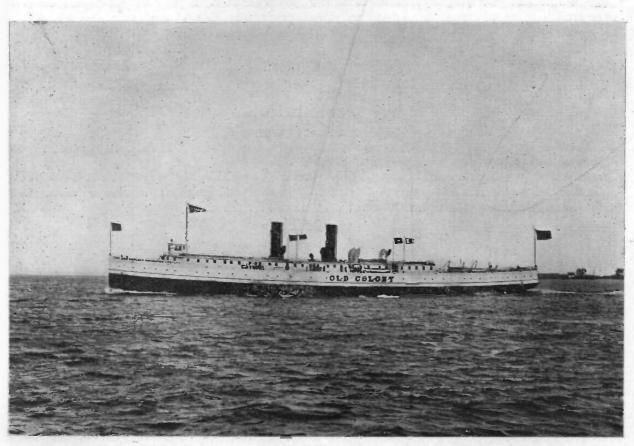
# Freight Traffic of New England Navigation Company is also protected by Massie Wireless Service



STEAMER BUNKER HILL, NEW ENGLAND NAVIGATION CO.



STEAMER MASSACHUSETTS, NEW ENGLAND NAVAGATION CO.



STEAMER OLD COLONY, NEW ENGLAND NAVIGATION CO.

# BUREAU OF MARINE INTELLIGENCE



#### THE T. A. SCOTT COMPANY INCORPORATED

New London, October 23, 1907.

Bureau of Marine Intelligence, 27 William Street, New York City.

Bureau of Marine Intelligence, 27 William Street, New York.

Gentlemen :--- We are pleased to say that the service which you are giving us through your several stations, is proving a very valuable convenience to us and one that we would not care to dispense with. You are at liberty to publish this, our feeling toward your company and the service you are rendering, and we will be glad at any time to recommend the service to anyone having commercial interests in any of the localities so ably covered by your various stations.

Very truly yours,

THE T. A. SCOTT CO., Inc.,

by Thomas A. Scott, Pres.

Ne

## RED ★ STAR

## THE AMERICAN TOWING AND LIGHTERING CO.

Baltimore, October 21, 1907.

Gentlemen :- Replying to your favor of the 19th, you are at liberty to publish the fact that your services in reporting our tugs has been both accurate and satisfactory, and has come up to all we could wish for.

Yours very truly,

R. J. BRADFORD,

Secretary and Treasurer.

#### Aler

#### **JAMES E. HUGHES**

#### COASTWISE TOWING

Bureau of Marine Intelligence:

Gentlemen :--- Your service in reporting Tow-boats "John A. Hughes" and "John F. Lewis" is very satisfactory as to efficiency and promptness of reporting same by telegrams and charges are reasonable. I have never had any cause to complain about excellent service furnished.

Yours truly,

JAMES E. HUGHES.

#### EASTERN COAL COMPANY

20.

35 WEYBOSSET STREET

Providence, R. I., November 8, 1907.

Bureau of Marine Intelligence, Atlantic Division, 27 William Street, New York.

Gentlemen :- In reply to yours of the 7th inst., we take pleasure in stating that the service you have rendered in reporting our barges at Point Judith and at other stations has been prompt and accurate and in all respects entirely satisfactory. You are at liberty to publish the above if you desire.

Yours truly,

EASTERN COAL COMPANY,

James A. George, Secretary.

Philadelphia, October 21, 1907.

# TESTIMONIALS

# WIRELESS SERVICE

#### "NEVER A MIS=WORDED MESSAGE"

DETROIT, MICH., Feb. 16, 1907. CLARK WIRELESS TELEGRAPH COMPANY, City.

Gentlemen:

We have used Wireless Telegraph System between here and Cleveland and have had excellent satisfaction. We have never had a mis-sent or a mis-worded message. This is more than we can say for any other system. Yours ery truly,

Iron Ores. THE STERLING & SKINNER MFG. Co. R. R. Sterling.

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#### "GOOD SERVICE"

DETROIT, MICH., Feb. 9, 1907. CLARK WIRELESS TELEGRAPH CO.,

193 Cass Ave., City.

Gentlemen:

We are in receipt of your letter of the 7th and in reply beg to say that you have given us good service on all the messages that you have sent.

Yours very truly,

Alex. Y. Malcomson Coal Co. O. M. M. DONALD,

Secretary.

#### "GREAT IMPROVEMENT OVER WIRES"

DETROIT, MICH., Feb. 9, 1907.

THE CLARK WIRELESS TELEGRAPH CO.,

193 Cass Ave.,

Detroit, Mich.

Gentlemen:

Replying to your letter of the 6th, beg to advise that we have not had occasion to use your Wireless Telegraph service to Cleveland more than a half dozen times and the service has been very satisfactory indeed. In its limited way, the service is a great improvement over the other companies operating over wires. There is ample room for your service in commercial life and we trust that you may soon be able to give us connections with other cities.

Yours very truly,

American Blower Company, I. B. Coe.

#### "REMARKABLY PROMPT"

Cleveland, O., Jan. 11, 1907. Clark Wireless Telegraph Co.,

Detroit, Mich.

We take occasion to thank you for the remarkable

prompt and satisfactory service that you are rendering and wish you a prosperous New Year.

Yours truly,

OHIO ELECTRICAL WORKS.

÷.

DETROIT, MICH., Feb. 11th, 1907.

THE CLARK WIRELESS TELEGRAPH CO. Detroit, Mich.

Gentlemen:

In reply to your favor of the 7th inst., we beg to advise that our experience with your Clark Wireless Telegraph has been extremely satisfactory. We have telephoned to you several messages for Cleveland, which have been delivered in Cleveland so promptly, that we are inclined to give you considerable more business.

We of course are desirious of prompt acton and we think your telegraphic equipment furnishes us excellent opportunities.

Yours truly, E. W. Smith, W. H. Warner Coal Co., Successor to W. C. Clark Coal Co.

#### -

#### "PERFECTLY SATISFACTORY"

CLEVELAND, Q., April 13, 1908. CLARK WIRELESS TELEGRAPH & TELEPHONE Co., Detroit, Michigan.

Gentlemen:

Brass Goods.

Replying to your letter of the 10th, regarding service given us by your company last year, as we have already stated, it was perfectly satisfactory, and we will undoubtedly be able to use your stations for our marine department, so far as they are available, during the coming season, which at present we understand to be only Buffalo, Toledo, Detroit and Huron. Kindly advise us of any additions as made, and oblige, Yours very truly,

OGLEBAY, NORTON & CO.

Dear Sir:

#### THE CONTINENTAL WIRELESS TELEPHONE AND TELEGRAPH COMPANY

#### QUICKER SERVICE BY WIRELESS

DETROIT, MICH., April 17th, 1908.

In answer to your inquiry of the 16th inst., we have used the Clark Wireless Telegraph service during the past season and found the same very satisfactory.

In these times when the old companies have so much other business going over the lines they are unable to give us the quick service required in Reporting of Vessels.

Our experience has been that in reporting the passages of boats for instance, to Buffalo, the average time in delivery was not to exceed 10 minutes from time of sending, and when telephoned direct from office was about five min-This you can see is where they have the advantage. utes.

Should you have any use of our office in reaching vessels passing here we will be glad to do the work for you at a reasonable rate and will refer you to Mr. Jno. N. Allen, of the Lackawanna Steel Co., Buffalo, as to our work in this line."

We had his contract last season and have just renewed the same again.

Shall be glad to hear from you on the subject.

Very truly,

PARKER MARINE REPORTING CO, CLARENCE L. PARKER, Mgr.

### **"VERY PROMPT AND EFFICIENT"**

DETROIT, MICH., Jan. 19, 1907. CLARK WIRELESS TELEGRAPH CO.,

Detroit, Mich.,

Gentlemen:

I am pleased to state that your wireless service between Detroit and Cleveland since June 15th, 1906, has been entirely satisfactory. It is very prompt and efficient, and we cheerfully recommend it to any one desiring prompt service between Detroit and Cleveland.

We are also pleased to state that we can communicate with our Steamer Western States 180 miles from Detroit station and are positive when you get your station completed at Buffalo, we will be in touch with our steamers at all times.

At the next meeting of our Board of Directors I will recommend equipping our new Steamer City of Cleveland, which is to be the largest side wheel steamer in the world, with the Clark Wireless service.

Wishing you success, I remain,

Yours truly,

DETROIT & CLEVELAND NAV. Co., DETROIT & BUFFALO STEAMBOAT CO., A. A. SCHANTZ, Gen. Supt.

#### **GIVEN ENTIRE SATISFACTION**

CLEVELAND, O., Feb. 26th. 1907. CLARK WIRELESS TELEGRAPH CO., City.

Gentlemen:

We have had occasion to use your system for the transmission of telegrams and are very glad to say that the service has given entire satisfaction.

Yours truly, The Columbian Hardware Co. J. E. STENGER, Sales Mgr.

#### "EXCEPTIONALLY GOOD AND PROMPT"

DETROIT, MICH., Feb. 9, 1907.

CLARK WIRELESS TELEGRAPH CO.,

Detroit, Mich.,

Dear Sirs:

Replying to yours of recent date, would say that we have found your service exceptionally good and prompt between Detroit and Cleveland and if your service continues to be as satisfactory, we will be glad to give you further business as you increase the number of your stations.

Yours very truly,

DETROIT SCREW WORKS, J. P. JOHNSTON, Mgr.

#### VERY GOOD SERVICE

TOLEDO, O., April 23, 1908.

We have your letter of April 15th with regard to the Clark Wireless Telegraph service. In reply beg to state that we sent and received a few messages over their system and found the service entirely satisfactory.

Yours very truly,

THE NATIONAL MALLEABLE CASTINGS CO., MARK KUEHN.

#### TRANSMISSION PERFECT

BUFFALO, N. Y., April 17, 1908.

Dear Sir:

Dear Sir:

Replying to your favor of the 13th inst., we are pleased to advise that the Clark Wireless Telegraph and Telephone Co. handled considerable business for us during the season of 1907, and we are very glad to say that their service was entirely satisfactory. We have frequently received replies to messages within fifteen or twenty minutes when other lines would consume from three or four hours to an entire day; and I do not remember that during the entire season we were obliged to have any messages repeated on account of errors in transmission.

Yours very truly,

DETROIT & BUFFALO STEAMBOAT CO., C. L. PERKINS, Agent.

#### "PROMPT REPLIES"

CLEVELAND, O., Feb. 13, 1907.

CLARK WIRELESS TELEGRAPH CO., Detroit, Mich.

Gentlemen:

We are pleased to take this opportunity to advise you that the services rendered between here and Detroit has been very satisfactory to us.

The advantages of your system are almost unlimited and in our limited experience, we have been pleased with the prompt replies you have been able to furnish.

Wishing you every success, we remain,

Respectfully yours,

OTTO KONIGSLOW MFG. Co., Per M. E. KONIGSLOW.

## **"VERY PROMPT SERVICE"**

#### CLEVELAND, O., 14th April 1908.

Dear Sir:

Replying to your inquiry just received. We used the Clark Wireless Telegraph System between the Stations of Cleveland and Detroit last year during the strike of the Postal and Western Union operators, and will say they gave very prompt service.

Yours truly,

THE WILSON TRANSIT CO.

## "COMPARATIVELY SATISFACTORY"

Dear Sir:

CLEVELAND, OHIO, April 16, 1908.

Replying to your favor of the 14th, would advise that we had some service from the Clark Wireless last year and it was comparatively satisfactory. We think the chief difficulty that we found with them was in the delivery of the messages after they reached this city, and we have called their attention to this fact this year and understand that they expect to revise their service in this regard very much this year.

Yours truly,

City.

THE STRONG, CARLISLE & HAMMOND CO., H. W. STRONG, Secy.

## "QUICK AND EFFICIENT SERVICE"

DETROIT, MICH., Feb. 12, 1907. THE CLARK WIRELESS TELEGRAPH CO.,

Gentlemen:

The use we have made of your Wireless Telegraph system between Detroit and Cleveland has proven very satisfactory and we take pleasure in recommending this new Detroit enterprise to anyone desiring quick and efficient service

We sincerely trust that your efforts will meet with success at every turn.

Yours respectfully,

THE PHILIP CAREY MFG. Co., Detroit Branch., HENRY BROWN, Mgr.

#### "PROMPT AND SATISFACTORY"

Dear Sir.

CLEVELAND, O., April 16, 1908.

We used their service last summer four or five times and found them prompt and in every way satisfactory. Very truly yours,

Sheet Metal Stampings. OTTO KONIGSLOW MFG. Co., M. E. KONIGSLOW.

## "ABSOLUTE SATISFACTION"

DETROIT, MICH., April 14th, 1908.

My Dear Sir:

In reply to your inquiry the writer takes pleasure in saying that he has used the Clark's Wireless Telegraph Service, and would say that it has given absolute satisfaction. As for quick service to and fro it cannot be beat either from land stations or mid lake.

Respectfully yours, WALK-OVER SHOE CO., Per J. E. WILSON.

PITTSBURG, PA., April 15th, 1908.

#### "SERVICE WAS SATISFACTORY"

Dear Sir:

CLEVELAND, O., April 17, 1908.

Replying to your favor of the 16th inst., would say we used the Clark Wireless Telegraph service between Port Huron, Detroit and Cleveland to a very limited extent last season and the service was satisfactory. Yours very truly,

THE CALUMET TRANSPORTATION CO. J. L. ASHLEY, Sec.

#### "VERY SATISFACTORY"

DETROIT, MICH., April 17th, 1908.

Dear Sir:

Replying to your favor of the 15th inst., The Stewart Transportation Co., did use the Clark Wireless Telegraphic service for a few messages between Cleveland and Detroit, during last season, while the Western Union strike was on, and did find Clark's service very satisfactory. Yours truly,

STEWART TRANSPORTATION Co., C. F. BIELMAN, Sec. and Treas.

#### LIMITED USE BUT PLEASED

#### Dear Sir:

In reply to your favor of the 14th, we are pleased to advise you that we did use the Clark Wireless Telegraph Service for a while last summer. It was satisfactory as far as is went but we were only able to use it between Buffalo and Cleveland and Buffalo and Detroit.

Yours very truly, Iron, Steel and Hardware.

BEALS & CO.

#### DETROIT, MICH., April 15, 1908.

Dear Sir: Your favor of April 13th at hand and in reply will state the Clark Wireless Telegraph service while in operation on our boats during the season of 1907 was entirely satisfactory.

Yours truly,

Detroit and Cleveland Navigation Co. A. A. SCHANTZ, Gen. Mgr.



#### USUAL COMMENDATION

CLEVELAND, O., April 17, 1908.

Dear Sir:

Replying to your favor of the 16th inst., would say we used the Clark Wireless Telegraph service between Port Huron, Detroit and Cleveland to a limited extent last season and the service was satisfactory.

Yours very truly,

THE CAMBRIA STEAMSHIP CO., J. S. ASHLEY, Sec.

### "QUICKER THAN TELEGRAPHING BY WIRE"

DETROIT, MICH., Feb. 8, 1907. CLARK WIRELESS TELEGRAPH CO.,

Detroit, Mich.,

Gentlemen:

We take pleasure in saying that we have used your service in communicating with our traveling man at Cleveland and found it much quicker than telegraphing by wire, we having received replies repeatedly in less than twenty minutes. We see no reason why you should not give equally as good service wherever you might have a station and will be glad to see their number increase.

Yours truly,

THE PHOENIX FIRE WORKS, C. CLARK, Gen. Mgr.

#### "VERY PROMPT REPLIES"

Тоledo, Оню, Арг. 14, 1908.

Dear Sir:

Replying to your letter, in which you inquire if we have ever used the Clark Wireless Telegraph service, will say that during the last summer we received a number of messages over their system, and sent a few in that way. We, of course, have no means of knowing what length of time it took to send those which we received, but the replies received in answer to our messages were very prompt, in fact, our recollection now is, we had replies to our Cleveland, Ohio, messages in less than 15 minutes, after the messages were sent.

#### Very respectfully,

Mill and Railroad Supplies. THE M. I. WILCOX Co., GEO. A. WEBER, Sec. and Treas.

#### ALL THAT COULD BE DESIRED

CLEVELAND, O., April 17, 1908.

Dear Sir:

Replying to your inquiry of the 16th. inst., we beg to state that we have received messages over the Clark Wireless Telegraph service from Buffalo and Detroit. We have never sent any over this system however as we have had no occa-sion as yet to reach these points by wire. The serivce on the messages received by us was all that could have been desired.

Very truly yours,

THE KINSMAN TRANSIT CO., G. M. STEINBRENNER, Secy.

## VERY SATISFACTORY

DETROIT, MICH., April 16, 1908.

Dear Sir:

Replying to yours of the 14th inst., would say, I have used the Clark Wireless Telegraph service some and found it very satisfactory. This was not used in a business way, but I have used it more as an experiment and in sending messages to my friends. Have found them always satisfactorily delivered, and made some experiments in telegraphing to the Cleveland steamer and getting returns while she was enroute, which seemed to me very remarkable.

Very truly yours,

HOMER WARREN.

#### "ACCURACY AND DISPATCH"

CLEVELAND, O., April 14, 1908.

Dear Sir:

Yours of the 13th inst., received. In regard to the "Clark Wireless" telegraph service, would state that last season used same for Detroit and Port Huron, and found it very satisfactory, both as to accuracy and dispatch.

Yours very truly,

W. B. DAVOCK.

#### ENTIRELY SATISFACTORY

AMHERSTBURG, PA., April 22, 1908.

Dear Sir:

In reply to yours of a recent date would say that we have used the Clark Wireless Telegraph service and it has been entirely satisfactory to us in every way. Yours very truly,

#### DUFF & GATFIELD.

## "NO FAULT TO FIND"

DETROIT, MICH., April 16, 1908.

Dear Sir:

In reply to your favor of the 14th inst., beg to advise that we used the Clark Wireless Telephone service to a limited extent last season, and had no fault to find with the service rendered.

Yours very truly,

DETROIT SEAMLESS STEEL TUBES CO. R. H. PHILLIPS, Sec.

#### "VERY SATISFACTORY"

#### Toledo, O.

We used the Clark Wireless Telegraph service between Port Huron and Buffalo last fall and found it very satisfactory.

L. S. SULLIVAN.

GREAT LAKES TOWING CO.

DETROIT, MICH., April 24th, 1908.

Dear Sir:

April 16.

Replying to your esteemed favor inquiring about the Clark Wireless Telegraph service, beg to advise that I have sent several messages to this company and for all that I can learn they were all very promptly delivered and I am pleased to advise the service was satisfactory. Yours truly,

Lumber and Vessels.

HENRY WINEMAN, Jr.

#### "RELIABLE"

BUFFALO, N. Y., April 15, 1908.

Dear Sir:

Replying to your favor of the 15th inst., will state that we used the Clark Wireless Telegraph last summer principally between Buffalo and Cleveland with satisfactory results, the service being prompt and accurate, and think that it is efficient and reliable within the proper limits of distance.

Very truly yours,

Ruffalo Dry Dock Co. WILLIAM WRIGH1,

Asst. Secy. and Treas.

#### "SATISFACTORY"

Dear Sir:

TOLEDO, O., April 17, 1908.

Yours of the 14th inst., received. We used Clark Wireless Telegraph service last season. We found it very satisfactory.

Yours truly,

Iron and Steel. THE BOSTWICK-BRAUN CO., H. L. THOMPSON,

Vice-Pres. and Gen. Mgr.

#### "PLEASED"

PORT HURON, MICH., April 16, 1908.

Dear Sir: We are well pleased with the service the Clark system gave us. Will also continue to give them what business we have.

Yours truly,

ELECTRIC REFINING CO., N. J. MOOKE.

# USED DURING STRIKE

DETROIT, MICH., April 16, 1908.

Dear Sir:

We have at hand your inquiry of the 15th inst., relative to the Clark Wireless Telegraph service and in reply will state that we have occasionally used this service between Detroit to Cleveland, especially during the recent strike on the other lines. We have found the service quite satisfactory.

Yours truly,

Anderson Forge & Machine Co., F. A. Hinchman, Sec.-Treas.

#### \*

#### **USED SYSTEM IN 1907**

DETROIT, MICH., April 16, 1908.

Dear Sir: Clark Wireless Telegraph service during the season of 1907 to our entire satisfaction, of course the service was limited to the few ports at which they had stations in operation. Yours truly,

Star-Cole Line Steamers.

A. R. LEE, Gen. Mgr

#### SOUTH AND WEST

DETROIT, MICH., April 17, 1908.

Dear Sir:

Replying to your favor of the 16th inst., the majority of our messages are sent throughout the south and west, therefore, we seldom have occasion to use the Clark Wireless service from Detroit to either Cleveland or Buffalo.

We are pleased to report prompt and satisfactory service on the few messages forwarded to date.

Trusting above advice will prove of service, we remain,

Very truly yours,

NATJONAL CAN COMPANY, A. G. CURBY, Sales Mgr.

BUFFALO, N. Y., April 18, 1908.

Dear Sir:

Minnesota Dock Co.

Computing Scale Co.

We have yours of the 16th inst. regarding the Clark Wireless Telegraph Service.

Although we only used their service a short time last season we received excellent service, and have no cause whatever to complain.

Yours truly,

W. E. CHILSON, Supt.

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#### PORTLAND, OREGON, 272 Stock St.,

April 24, 1908.

Your letter of the 16th forwarded to me from Cleveland at hand. In regard to the Clark Wireless Telegraph service, will say that I have used same a great deal during my two years stay in Cleveland, and must say that it is the quickest and most efficient method of transmission I have ever used.

Yours truly,

J. F. COLIGAN.

#### CLEVELAND, O., April 14th, 1908.

Dear Sir:

Dear Sir:

Replying to your favor of the 13th inst., relative to the service of the Clark Wireless Telegraph Co., and in reply will state, that we did some business with this concern last season and same was perfectly satisfactory.

Yours very truly,

THE DAVIDSON STEAMSHIP CO.

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#### BUFFALO, N. Y., April 14, 1908.

Dear Sir:

Replying to yours in relation to the Wireless Telegraph service, would say the service rendered us by this company in the past has been quite satisfactory. Yours very truly,

Fire and Marine Underwriters.

WORTHINGTON & SILL

#### SERVICE FIRST CLASS

CLEVELAND, O., April 26, 1908.

Dear Sir:

We are in receipt of your favor of the 15th inst. regarding the Clark Wireless Telegraph Service.

We are pleased to inform you that it proved perfectly satisfactory in every way, its service being first-class. Trusting that this is satisfactory to you, we beg to

remain.

Dealers in Fish.

Very truly yours, А. Воотн & Со., Per F.

#### PROMPT DELIVERY AND REPLIES

Dear Sir:

DETROIT, MICH., April 17, 1908.

We have your favor of the 15th, and beg to say, we have used the Clark Wireless and have found it very satisfactory so far. They are prompt in delivering their messages and returning replies.

We trust this is the information you desire.

Yours very truly,

Jewett, Bigelow and Brooks, Coal. E. H. JEWETT, Vice-Pres.

#### "PERFECTLY SATISFACTORY"

Dear Sir:

DETROIT, MICH., April 17, 1908.

Replying to your favor of the 14th will say that I received one message and replied to same by Clark's Wireless. Everything seemed perfectly satisfactory as far as I can sec.

Scripps Motor Car Co.

Yours very truly, W. B. Scripps.

#### WELL SATISFIED

Dear Sir:

CLEVELAND, O., April 16, 1908.

Replying to your favor of the 15th inst,. beg to advise you that we have used the Clark Wireless Telegraph between here and Detroit, and have found the service very satisfactory indeed.

> Verv respectfully yours, THE GRANT-LEES MACHINE CO.

#### "WILL CONTINUE USING"

DETROIT, MICH., Jan. 7, 1907.

CLARK WIRELESS TELEGRAPH CO., Detroit, Mich.

Gentlemen:

In answer to yours of January 5th, we would say that so far as we have had any experience with your service, it has been very satisfactory. We have sent only a few messages, but we are so well pleased with the service, that we expect to continue using your system wherever we can.

Yours very truly,

MICHIGAN BOLT & NUT WORKS, E. T. GILBERT, Gen. Mgr.

### MANY ADVANTAGES

DETROIT, MICH., April 17th, 1908.

Gentlemen: In answer to yours of the 16th inst., relative to the Clark Wireless Telegraph service, we would say that we had occasion last year to use this system very often between here and Cleveland, and found it very satisfactory, being much more prompt, on the average, than either of the other companies, besides advantages in other ways. We were well pleased with their work.

Yours very truly, Michigan Bolt & Nut Works. E. T. GILBERT,

Vice-Pres. and Treas.

#### PROMPT AND CORRECT

CLEVELAND, O., April 16, 1908.

Dear Sir: The services rendered by the Clark Wireless Telegraph Co. has been very prompt, correct and satisfactory We especially recommend the Clark Co. for its promptness.

Yours truly,

OHIO ELECTRIC WORKS.

## **IMMEDIATE REPLY**

Dear Sir:

PORT HURON, MICH., Apr. 17, 1908.

In answer to your inquiry would say that we have used the Clark Wireless Service last year and were satisfied with the service, they had no trouble at this point.

We sent one message to Cleveland one day and got an answer back in seven and one-half minutes over their system.

They gave very good service between here and Buf-falo, Cleveland and Detroit, the only stations they had last fall. When they get more stations we think that it will be adopted by the Steamboat line. We are not interested in the Clark Wireless whatever.

They have not opened their station at Port Huron yet this spring, as the steamboats are not running at present. We were sending the vessels passage to the Marine Review, Cleveland, Ohio, at 7:30 A. M., and they changed the time one half hour later and then in a week they again changed one half hour later, the reason was that the service was so rapid.

Yours very truly,

KENDALL MARINE REPT. Co., J. E. MENO, Mgr.

## "IMPROVEMENT OVER WIRES"

DETROIT, MICH., Feb. 9, 1907.

THE CLARK WIRELESS TELEGRAPH Co., 193 Cass Ave., Detroit, Mich.

Gentlemen

Replying to your letter of the 6th, beg to advise that we have not had occasion to use your Wireless Telegraph service to Cleveland more than a half dozen times and the service has been very satisfactory indeed. In its limited way, the service is a great improvement over the other companies operating over wires. There is ample room for your service in commercial life and we trust that you may soon be able to give us connections with other cities.

Yours very truly, AMERICAN BLOWER CO., I. B. COE.

#### RELIABLE

BUFFALO, N. Y., April 20, 1908.

Dear Sir:

In reply to your kind favor of recent date would say that we had occasion to use Clark's Wireless Telegraph service several times last year from our Detroit store and found the same perfectly satisfactory.

#### Yours truly,

Five and Ten Cent Stores. S. H. KNOX & Co.,

Per D. Good.

Dear Sirs:

CLEVELAND, O., April 14, 1908.

We have used Clark's Wireless telegraphy for service between here and Detroit and have found it very satisfactory, in fact on some occasions the time to get a telegram to Detroit and back was less than one-third of the time by the old system.

> Your very truly, H. D. CUSHMAN Co.,

By H. D. CUSHMAN

## Dear Sir:

#### CLEVELAND, O., April 17, 1908.

We are pleased to reply to your letter of the 14th and would say we found the service of the Clark Wireless Telegraph Company very satisfactory. We used the service considerably last summer and got quick responses to our telegrams. We are very well pleased and think you will be if you give same a trial.

Yours truly,

THE BASSETT-PRESLEY CO., E. C. KOLLFRATH, Mgr.

DETROIT, MICH., April 16th, 1908.

Dear Sir:

Iron and Steel.

Replying to yours of 15th inst., we beg to advise you that the service extended to us last season by the Clark Wireless Telegraph service, was proficient and satisfactory in every respect.

Yours very truly,

W. H. EDGAR & SON,

Per WM. P. TURNER.

Dear Sir:

PORT HURON, MICH., April 15, 1908.

Yours of the 13th inst. asking for information regarding the service rendered by the Clark Wireless Telegraph Company has been received.

In reply will say that I used this service last season, and found it very satisfactory, and as far as I have been able to learn all who have made use of it have been thoroughly satisfied.

Very truly yours,

Hard and Soft Coal.

J. W. THOMSON.

## "ACCURATE AND QUICKEST"

CLEVELAND, OHIO, Feb. 20th, 1907.

CLARK WIRELESS TELEGRAPH CO., Detroit, Mich.

Gentlemen:

I have had occasion to use your system in the transmission of telegrams and find that the service is not only accurate but the quickest service that I have ever used. Yours truly,

National Cash Register Co.

## DETROIT, MICH., April 14, 1908.

Dear Sir:

Replying to your esteemed favor of April 13th, we are pleased to say that the service rendered by the Clark Wireless Telegraph Company, of Detroit, has been excellent in every way. Messages have been transmitted correctly and more prompt than through any other form, and we will be glad to continue our patronage with them this year.

Yours respectfully,

THE PHILIP CAREY CO., HENRY BROWN, Mgr.

J. F. COLIGAN,

Sales Agent.

#### "SATISFACTORY"

CLEVELAND, O., April 14, 1908.

Dear Sir:

Insurance Brokers

We have your undated letter, relative to the Clark Wireless Telegraph Co., and in reply to your inquiry concerning their service beg to say that it was entirely satisfactory to us.

Yours very truly,

WILLCOX, PECK & HUGHES, E. P. LENIHAN, Director.

#### "QUICKER THAN WIRES"

PORT HURON, MICH., April 16, 1908.

Dear Sir:

In reply to your letter of the 15th, I beg to say that we have used the Clark Wireless Telegraph service to some extent during last summer, between Purt Huron and Cleveland, a distance of considerably over 100 miles. The service was very good, being much quicker than that of the regular telegraph company.

Yours truly,

PORT HURON LIGHT & POWER CO., A. C. MARSHALL, Gen. Mgr.

CLEVELAND, O., April 17, 1908.

## **GOOD SERVICES**

Dear Sir:

Yours of the 15th and 16th addressed to the Huron Barge Company and the Mesaba Steamship Company, received.

We beg to advise that we did considerable business with the Clark Wireless Telegraph Co. during last season and the service rendered was perfectly satisfactory. Yours very truly,

Iron Ores.

PICKANDS, MATHER & Co.

#### PERMANENT CLIENT

DETROIT, MICH., April 16, 1908.

In reply to your inquiry of the 15th inst., we are pleased to say that during last season, we made use of Clark Wireless Telegraph service between Detroit and Cleveland. We found it very satisfactory and service was very quick as compared with the telegraph companies. We can assure you that we are going to make use of their system this season.

Yours very truly,

THE CHAS. A. STRELINGER CO., CHAS. T. BUSH.

#### **REASONABLE RATES**

DETROIT, MICH., Apr. 17, 1908.

In reply to your favor of the 16th inst., we beg to advise you that we have used the Clark Wireless Telegraph and Telephone service between our Detroit and Port Huron plants. While the service which we have required has not been very extensive, we have found it perfectly satisfactory in all instances where we have called it into use. It has been prompt, and the rates have been more reasonable than either telephoning or telegraphing. Yours truly,

NORTHERN MOTOR CAR COMPANY, E. M. MORRISS, Asst. Sec.

#### INCREASED RELATIONSHIP

CLEVELAND, O., Feb. 11, 1907. CLARK WIRELESS TELEGRAPH CO.,

D. & C. Bldg.,

City.

Gentlemen:

This is to certify that the telegrams transmitted to us, and for us so far have been entirely satisfactory, and with the opening of navigation between here and Detroit, and the extension of your service to other points than Detroit your service should be still better, and we will be pleased to further extend our relations with your company.

Yours truly.

THE BOURNE-FULLER CO. W. J. FLEMING, Asst. Sec.

#### WELL PLEASED

DETROIT, MICH., Feb. 11th, 1907. CLARK WIRELESS TELEGRAPH CO., City.

Gentlemen:

In response to your favor of the 7th inst., we would advise that we have used your service from Detroit to Cleveland, and have also received a number of replies from the same service, and are well pleased with the results. We have no doubt that with the rapid development of the country in general, there is ample room for a general extension of your service between the large centers, and hope that this will be in operation in the near future.

Yours very truly,

DETROIT BRASS WORKS, E. J. SHAW, Sec.

#### "PLEASED WITH SERVICE"

DETROIT, MICH., Jan. 7, 1907.

MR. THOMAS E. CLARK,

Clark Wireless Telegraph Co.,

City. My Dear Sir:

I have yours fifth, and take pleasure in enclosing you a letter recommending the work of the Clark Wireless Telegraph System. I am pleased to do this as we are more than pleased with your services.

Yours very truly, Clothing.

J. S. HUDSON.

#### SPEEDY AND EFFECTIVE

PORT HURON, MICH., June 2, 1908.

Your letter arrived during my absence and has just come to my notice. I am pleased to advise you that we have used the "Clark Wireless System" since its installation here, with every satisfaction. I believe we sent a message to Cleveland and received an answer in seven minutes. We are pleased to endorse it as a speedy and effective system.

Respectfully yours, F. A. HALSTED.

The G. B. Stock Xylite Grease & Oil Co.

#### "HAVE BEEN SATISFACTORY"

DETROIT, MICH., Feb. 7, 1907.

CLARK WIRELESS TELEGRAPH CO.,

193 Cass Ave.

Detroit, Mich.

Gentlemen:

Dear Sir:

Dear Sir:

Noting your favor of the 7th inst., we have not had occasion to use your service very often but in all cases where we have tried it, the results have been satisfactory. Very truly yours.

DETROIT SEAMLESS STEEL TUBES Co., R. H. PHILLIPS, Secretary.

#### EVERY WAY SATISFACTORY

CLEVELAND, O., April 16, 1908.

We are in receipt of your letter of April 15th, in regard to the Clark Wireless Telegraph service, and note your enquiries contained therein. In reply would say that we have used this service, and have found it in every way satisfactory.

#### Very truly yours,

HOYT, DUSTIN, KELLY, MCKEEHAN & ANDREWS. Attorneys and Counsellors at Law.

BUFFALO, N. Y., April 17, 1908.

Replying to your favor of the 15th inst., regarding the services received from the Clark Wireless Telegraph Company, are pleased to say that the service rendered by this company was exceedingly satisfactory and we were highly pleased with same. They were prompt and courteous in every way and the rates very reasonable.

Yours respectfully,

E. G. RIPPEL STEEL FOUNDRY Co., E. G. RIPPEL, Pres.

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Dear Sir:

Dear Sir:

Dear Sir:

#### SATISFACTORY

DETROIT, MICH., April 17, 1908.

Dear Sir:

In reply to yours of the 15th inst., we have used the Clark Wireless Telegraph service between Detroit and Cleveland and find it very satisfactory.

Yours respectfully,

THE ART STOVE CO., WM. A. DWYER.

#### **QUICK SERVICE**

#### Dear Sir:

DETROIT, MICH., April 14, 1908.

Your favor of the 13th received and the service the Clark Wireless Telegraph Co. has given us has been very satisfactory indeed and when we have messages going to any of their points it will give us great pleasure to have them take care of the work. We think it is the coming method of quick service and take great pleasure in recommending it to our friends.

Yours truly,

Grain and Seed Com.

CARSON, CRAIG & CO.

#### "SUMMER SERVICE"

Dear Sir:

PORT HURON, MICH., May 25, 1908.

Your favor of April 16th, received during my absence, relative to Clark's Wireless Telegraph service, and I am pleased to say that I used the service some during last summer and found it very satisfactory.

Yours truly,

PAWNEE BOAT COMPANY, H. McMORRAN, Sec. and Mgr.

"O. K."

#### CLEVELAND, O., April 15, 1908.

W. G. POLLOCK.

Dear Sir:

Replying to your favor of April 15th, would state that we have used the Clark Wireless Telegraph service to our entire satisfaction.

Iron Ores.

Dear Sir:

Yours very truly,

## "EFFICIENT"

#### DETROIT, MICH., April 15, 1908.

We used the Clark Wireless Telegraph service in a limited way last year and found it quite efficient and we intend to use the same service this year whenever it is possible.

Yours very respectfully, THE DETROIT BAG CO., A. W. MOYNES.

#### ENTIRE SATISFACTION

#### BUFFALO, N. Y., April 16, 1908.

Dear Sir: We have your favor of the 15th. We have used the "Clark Wireless Telegraph" service between Buffalo, Cleveland and Detroit, and received entire satisfaction from it. Yours truly,

Vessel Owners.

BOLAND & CORNELIUS.

### "SATISFACTORY"

DETROIT, MICH., April 18, 1908.

Dear Sir:

We have your letter of the 15th inst., with reference to the Clark Wireless Telegraph service, and in reply to same beg to advise that we used this service during last summer, and found same to be very satisfactory in every respect.

Trusting that this information may be of service to you, we remain,

Yours truly, R. L. GINSBURG SONS CO. Iron, Steel and Metals.

## "ACCURATE"

DETROIT, MICH., April 14, 1908.

Dear Sir:

Replying to yours of the 13th inst., beg to advise that we have used the Clark Wireless Telegraph service quite frequently, and have found same to be entirely satisfactory in every respect, it being very prompt and accurate.

I trust I have given you the information you desire. Yours very truly,

TRUSSED CONCRETE STEEL CO.,

O. A. KLINGER, Purchasing Dept.

#### NO COMPLAINT

CLEVELAND, O., April 17, 1908.

Dear Sir: Replying to your letter of the 14th, will say that we have given and received several Clark Wireless messages and have found same very satisfactory indeed.

Very truly yours,

THE HYDRAULIC PRESSED STEEL CO., Per M. E. SHIPLEY.

#### SATISFACTORY

CLEVELAND, O., April 16, 1908.

MR. J. R. HUMPHREYS, Pittsburg, Pa.

Dear Sir:

Answering your inquiry of the 15th concerning the Clark Wireless Telegraph service, beg to say in our experience their service has been entirely satisfactory to us. Very truly yours,

First National Bank.

J. H. CASWELL. Asst. Cashier.

#### "DISPATCH"

PORT HURON, MICH., April 17, 1908.

Dear Sir:

In reply to your inquiry of April 16th, we have made use of the Clark Wireless Telegraph service between here and Cleveland last year and were very well pleased indeed with the dispatch and service given. In as much as we only had occasion to use the line a few times, we are not in position to give you any information excepting as to service rendered us.

Yours very truly,

MICHIGAN SULPHITE FIBRE CO., O. L. E. WEBER, Mgr.

#### SATISFACTORY

DETROIT, MICH., Feb. 18th, 1907.

CLARK WIRELESS TELEGRAPH CO.,

193-195 Cass Avenue,

Detroit, Mich.

Gentlemen:

I wish to say as one of the patrons of the Clark Wireless Telegraph Company that the service we received was in every way satisfactory and we wish you success.

#### Very truly yours,

Hotel Normandie.

GEORGE FULWELL, Proprietor.

PORT HURON, MICH., May J, 1908. Dear Sir:

Replying to your letter of April 16th, delivered during the writer's absence from the city; we have used Clark's Wireless Telegraph service some last summer and results were satisfactory.

Yours very truly,

Nipigon Transit Co.

O. L. E. WEBER, Sec.

#### SATISFACTORY

DETROIT, MICH., Feb. 12, 1907. MESSRS. N. A. HAWKINS & Co.,

Detroit, Mich.

Gentlemen:

On several occasions we have used the service provided by the Clark Wireless Telegraph Company, Detroit, Michigan, and have found this service to be entirely satisfactory in all respects. We are,

Yours very truly,

BURROUGHS ADDING MACHINE Co., E. B. HOOKER.

#### "SATISFACTORY SERVICE"

Dear Sir:

Толево, Оню, Арг. 17, 1908.

Replying to your letter of the 16th inst., would say that we have given the Clark Telegraph Co. but very little business. What we have given them has been very satisfactory.

Yours truly,

THE HEAVY HARDWARE CO.

Dear Sir:

CLEVELAND, O., April 17th, 1908.

We have for acknowledgement your favor of the 16th. In a limited way we used the Clark Wireless Telegraph service during part of the navigation season of 1907. The results were satisfactory.

Yours truly,

Insurance.

HUTCHINSON & Co.

#### PROMPT

DETROIT, MICH., February 12th, 1907. N. A. HAWKINS & COMPANY,

Majestic Bldg., Detroit.

Gentlemen:

Dear Sir:

In compliance with the telephone conversation which you had several days ago with our Mr. W. C. Leland, we take pleasure in advising you that we have used the Clark System in sending messages to Cleveland, and have found the service very prompt and satisfactory in every way.

Hoping this information may be of assistance to you, we are,

Very truly yours,

CADILLAC MOTOR CAR CO. C. P.

## "SATISFACTORY RESULTS"

DETROIT, MICH., April 22nd, 1908.

In reply to your favor of the 15th inst., beg to advise you that we have occasionally used the Clark Wireless Telephone service to Buffalo and Cleveland, with satisfactory results.

Yours very truly,

PITTSBURGH PLATE GLASS CO. A. H. GILLESPIE. Local Mgr.

#### COMMENDABLE SERVICE

CLEVELAND, O., Feb. 11, 1907.

CLARK WIRELESS TELEGRAPH CO.,

D. & C. Bldg.,

City.

Gentlemen:

This is to certify that the telegrams transmitted to us, and for us so far have been entirely satisfactory, and with the opening of navigation between here and Detroit, and the extension of your service to other points than Detroit your service should be still better, and we will be pleased to further extend our relations with your company.

Yours truly,

Iron and Steel.

THE BOURNE-FULLER CO., W. J. FLEMING, Asst. Sec.

#### DEPENDABLE SERVICE

DETROIT, MICH., Jan. 7, 1907.

CLARK WIRELESS TELEGRAPH CO., City.

Gentlemen:

We have been using your system for our telegraph business between Detroit and Cleveland for about two months, and take pleasure in saying to you that it not only has been perfectly satisfactory, but we have never before had messages from Cleveland to Detroit in so short a time. If you can do as well with all of your patrons as you have for us, your certainly ought to be able to have an excellent business. We are pleased to recommend your line.

Yours very truly,

THE J. S. HUDSON CO.

#### **GOOD NEWS SERVICE**

#### Los Angeles, CAL., Sept. 21, 1903.

To Whom It May Concern.

Since March last, The Times, has been publishing daily at Avalon, Cal., a small daily paper called "The Wireless." The Pacific Wireless Telegraph Company have transmitted from 700 to 1,000 words of news from San Pedro to our office in Avalon daily. In the month of April, the matter was transmitted during severe wind and rainstorms on several different occasions and no errors or interruptions of any kind occurred. In fact, the service for the whole period of time has been practically perfect, without interruptions, errors or delays. On two or three occasions slight errors were made in the transmission, but in each case when the matter was traced down it was found that the fault was with the Western Union, between this city and San Pedro and not the Pacific Wireless Company

H. G. OTIS, The Times-Mirror Co. Pres. & Gen. Mgr.

#### **SUCCESS**

SAN FRANCISCO, Jan. 5, 1905.

D. H. RAND, M. D.

Rooms 501-502, The Dekum,

Third and Washington Sts., Portland, Ore. Dear Sir:

Answering your favor of Jan. 3rd, I have to say the Pacific Wireless Telegraph Company's systêm between Catalina Island and the main land is a success, and I understand that their Puget Sound system is also working successfully. The latter I have not seen.

Yours very truly, L. W. STORROR, Postal Telegraph Co. Gen Supt.

#### "EFFICIENT SERVICE ON PUGET SOUND"

SEATTLE, WASH., July 3rd, 1905. PACIFIC WIRELESS TELEGRAPH CO.,

Los Angeles, Cal.

Gentlemen:

I wish to compliment you on the efficiency of your service on Puget Sound. I have had occasion to use it quite frequently and have always met with excellent satisfaction and service.

Yours truly,

Northern Pacific Railway Co. I. A. NADEAU,

#### PERFECT SERVICE AT CATALINA ISLAND

ST. Louis, Mo., May 7th, 1906.

MR. GEO. A. SMITH,

307 Hartford Bldg., Chicago, Ill.

Dear Sir:

In answer to your inquiry of the 5th, I beg to say that while at Catalina Island, I received and sent quite a number of messages over the Pacific Wireless, and found the service perfectly satisfactory.

Very truly yours,

Adolphus Busch.

#### BETWEEN SAN PEDRO AND AVALON

Los Angeles, Cal., Sept. 22, 1903.

To Whom It May Concern:

The wireless telegraph system now in operation between San Pedro and Avalon, Santa Catalina Island, and operated by the Pacific Wireless Telegraph Company is a perfect success and as far as we know has not been out of working order since its installation about a year ago.

When sending a message we have absolute confidence that every word of same will be properly transmitted. In this connection will state that all of our orders to the Catalina Island quarries are telegraphed over the above system, and when you consider that a mistake of a letter or a word might cost us several hundred dollars when ordering marble, you can readily understand the perfect confidence we have in it. In fact, words cannot express our appreciation of this wonderful invention.

Yours respectfully,

HANCOCK BANNING, Vice-Pres. and Treas.

#### PERFECT SERVICE ON U.S. S. "GRANT"

TACOMA, WASH., June 1, 1905.

PACIFIC WIRELESS TELEGRAPH CO.,

Los Angeles, Cal.

Gentlemen:

Banning Co., Coal.

Referring to your letter of recent date, concerning the Pacific Wireless Telegraph, I take pleasure in stating for your information, and for the information of all persons interested in its success, that the wireless telegraph system installed by your Company on the U. S. Revenue steamer "Grant," rendered perfect service at all times within the limit stated in your contract, and I am certain that with additional stations it will be of great value to the commeradditional stations in cial interest of this country. Very truly yours.

F. FOYER, Capt. U. S. R. C. "Grant."

#### STATION FOR INDIAN SERVICE

BARTOW, KITSAP, CO. WASH., July 10, 1905. PACIFIC WIRELESS TELEGRAPH CO.,

Los Angeles, Cal.

Life Saving Service.

Gentlemen:

Replying to your request for a statement concerning my experience with your system of Wireless Telegraphy, I have the honor of stating that it has been in every way satisfactory, and, as you may have already heard through your agent at Seattle, I am hoping to have a pole of my own up at the agency here, although I already have the Western Union, the best of the wire-using companies. It gives a fellow a sort of "up-to-date-feeling" to use the latest (and one of the most wonderful) inventions. There is to be a new fort here in the near future, and Major Millis who will manage its installation in connection with his many other duties on the Coast, is a wide-awake, progressive man, and I shall not be surprised if he takes an interest in my scheme for a station.

Sincerely yours,

U. S. Indian Service. ALLEN A. BARTOW, In Chge. Pt. Madison Res.

#### I ENDORSE YOUR SYSTEM

MILWAUKEE, WIS., December 11th, 1907. PACIFIC WIRELESS TELEGRAPH Co., Los Angeles, Cal.

Dear Sirs:

I wish to compliment you on the efficiency of your service between Milwaukee and Chicago.

Since its installment in Milwaukee, I have had occasion to use it quite frequently, and in my opinion, your telegraphic service is excellent and I heartily indorse your system.

Wishing you every success, I am,

Yours very truly, Milwaukee Athletic Club. WALTER H. SIGMA,

Chairman Athletic Club.

#### "EXCELLENT SERVICE"

MILWAUKEE, WIS.

THE PACIFIC WIRELESS TELEGRAPH COMPANY, Milwaukee, Wisconsin.

Gentlemen:

l desire to express my personal appreciation of the prompt and excellent se vice furnished by your company upon the occasion of the recent walking match from Milwaukee to Chicago. I used your service a number of times and notwithstanding the stormy weather found the service to be excellent in all necessities. The messages were not only accurately transmitted but were delivered promptly. The service was in all respects satisfactory.

This statement not only covers my own use of the service but is equally true as to other members of the party.

Yours truly, SHEKBURN W. BECKER, Mayor Milwaukee.

## "AN ACTUAL DEPENDABLE UTILITY"

CHICAGO, ILL., December 9, 1907. PACIFIC WIRELESS TELEGRAPH CO. City.

Gentlemen:

Replying to your request for statement concerning my experience with your system of wireless telegraphy 1 am glad to state that it has been in every way satisfactory

I accompanied the party of Chicago business r en, who started from Milwaukee on the morning of Dec ber 3d, to walk to Chicago, for a part of the distance, and was kept in touch with the progress of the pedestrians during all their walk from Milwaukee to Chicago by hulletins handled by your company. To my knowledge you handled a vast amount of press matter, service bulletins, and individual telegrams in connection with this walking match during a severe blizzard and snowstorm, and the business was in every instance handled correctly, and the service given superior to that of any wire company that I have ever had any experience with.

I feel that I can say that the service given by your company is no longer an experiment, but an actual, dependable, every day working utility, able to meet all requirements of a commercial telegraph system.

#### Yours truly,

#### EDWARD PAYSON WESTON.

Note. Mr. Weston is the champion long-distance pedestrian of the world, having just completed a walk from Portland, Maine, to Chicago, he being 69 years old at the time he started on this walk.

#### **A CONSERVATIVE INVESTMENT**

SAN FRANCISCO, CAL., May 12, 1908.

MR. J. W. HAWLEY,

Cincinnati, Ohio. Dear Sir:

I take pleasure in answering yours of the 6th inst. Regarding the Pacific Wireless and what it is doing out on this coast, will say, that it is well known and well thought of as an investment among investors.

The company is doing all that it claims to do and as far as I can learn is doing a nice commercial business accurately. As to this investment being a conseravtive one I can only give you my opinion and that of others whom I have heard speak of it and we all agree that it is one of the best on the market and one of the best and safest.

I do not consider an investment in this stock a risk at all and if I could afford another investmeut in this stock I would not hesitate in purchasing more as I am confident of its future. I am not advising you to buy stocks of any kind, I am only giving you my opinion, but if you have a few spare dollars I do not know where you can place them to any better advantage than in this stock. The company is, as far as I can learn in good shape financially and the officers are some of the best known and conservative men in this State. I trust this letter has explained what you wished to know.

I beg to remain,

Very truly yours, The Cambridge Tile Mfg. Co. CHAS. E. EDWARDS, Sales Mgr.

#### CUSTOMS SERVICE

WASHINGTON, D. C., Jan. 15, 1906.

MR. W. R. CRAWFORD, Spokane, Wash.

Sir:

Replying to your communication of the 27th ultimo, relative to the merits of the Pacific Wireless Telegraph Company's system, used by this Department, I have to advise you that the system has been in use for over two years in the Customs service at three stations on Pudget Sound, Washington, viz., Port Townsend, Friday Harbor, and on a Revenue Cutter, and so far as this office is concerned no complaint has been received.

Treasury Department.

SAN FRANCISCO, CAL., Dec. 2, 1905.

MR. C. H. DEMENT, Piqua, Ohio.

Dear Sir:

I have yours of the 23rd ult., relative to the system of the Pacific Wireless Telegraph Co., but can only reply with reference to their connection between Los Angeles and Avalon, Santa Catalina Island.

That connection has been working successfully for over two years and connects with this company in handling business for that point. I am not sufficiently versed in the system to know whether it would be equally successful at other points, but assume that it would be under similar conditions.

Very truly yours, The Western Union Telegraph Co. F. H. LAMB, Supt.

Respectfully, J. B. Reynolds, Asst. Secreta y.

## "FOUR STATIONS ON PUGET SOUND"

PORT TOWNSEND, WASH., Jan. 7, 1905.

D. H. RAND, M. D.

No. 501-2 The Dekum, Portland, Ore.

Dear Sir:

Answering your inquiry of the 3d instant, relating to the Pacific Wireless Telegraph Co:

I beg to state that said Company has had for a year past four stations on Puget Sound in successful operation, viz: Port Townsend, Friday Harbor, Fort Casey and on the Revenue Steamer Grant. I understand stations have been installed at Seattle and Victoria recently but are not yet open to the public, and that the Company has announced its intention to open stations at other places on the sound, but on this matter I am not fully advised, as my acquaintance with the affairs of the Company has arisen solely through the transmission of messages in the Customs business between the stations in operation. Service has been regularly maintained and has been satisfactory. Respectfully,

U. S. Customs Service.

Gentlemen:

C. W. IDE.

#### A FINE FUTURE

Los Angeles, CAL., Aug. 13, 1906.

With reference to the standing of the Pacific Wireless Telegraph Company, I have known personally this organization for several years past, in fact, ever since they completed their station on Catalina Island. At that time I came in direct contact with Gen. A. L. New, the manager. I have in a measure kept in touch with their doings on the Pacific Coast, especially taking deep interest in the large plant now almost completed on Mount Tamalpais.

From my personal knowledge of the Pacific Wireless Co. it seems to me that it has a very fine future and I have no hesitancy in saying that in my opinion it will be a great success.

## Yours very truly,

G. A. PARKYNS.

Note:-Mr, G. A. Parkyns is Vice President of the Merchants Trust Company, one of the leading financial institutions of Los Angeles, Cal., having a paid-up capital of \$350,000.00 and large resources.

#### **OFFICERS OF HIGH CHARACTER**

#### Los Angeles, CAL., July 11, 1903.

To Whom It May Concern:

We are personally acquainted with the officers and some of the stockholders connected with the Pacific Wireless Telegraph Co., and are pleased to say that they bear the highest character and reputation in the business line, and we believe them entirely responsible for any contracts they may undertake. Their work in this vicinity during the last few months has proven of most satisfactory character and warrants them in making very high claims for their company.

Yours truly,

The American Nat. Bank.

F. W. PHELPS, Cashier.

SAN FRANCISCO, CAL., Jan. 5, 1905. D. H. RAND, M. D.

Rooms 501-502, The Dekum, Third & Washington Sts., Portland, Ore. Dear Sir:

Answering your favor of Jan. 3rd, I have to say the Pacific Wireless Telegraph Company's system between Catalina Island and the main land is a success, and I understand that their Puget Sound System is also working successfully.

Yours very truly, L. W. STORROR, Postal Telegraph-Cable Co. Gen. Supt.

#### "PROMPT AND CORRECT"

CHICAGO, 111., July 5, 1905.

PACIFIC WIRELESS TELEGRAPH CO., Los Angeles, Cal.

Gentlemen:

Replying to your inquiry of June 30th, I am pleased to say that in my use of the Pacific Wireless Telegraph Co. at various times I have found the service most satisfactory and very prompt in every particular, both as to correctness in the transmission of messages and promptness in their dispatch. I believe the service of your company is equal to that of any telegraph company with whom I have had any experience.

I am very glad to advise that my personal dealings with your Company allow me to make these statements in all sincerity.

Yours truly, W. B. BARR. Chicago Ter. Transfer R. R. Co.

#### "SUCCESS"

Los Angeles, CAL., August 7th, 1905. MRS. FANNY L. LASH,

No. 2801 Grand Ave.,

Portland, Ore.

Madam:

In answer to your letter of the 3rd instant, I beg to say that in both official and private capacity I have often had occasion to use the Pacific Wireless Telegraph Company's service between this point and Avalon, Santa Catalina Island, and have always found it to be a success. Yours respectfully,

Southern Pacific Co.

R. H. INGRAM. Gen. Supt.

#### "THE SYSTEM IS ALL RIGHT"

Los Angeles, CAL., Nov. 28, 1905.

MR. C. H. DEMENT,

Piqua, Ohio.

Dear Sir: I received your letter of the 23rd inst. Have used the Pacific Wireless Telegraph Co.'s system between Los Angeles and Avalon, Santa Catalina Island with perfect success. Complicated messages have been sent and received by me without an error. In my opinion the system is all right.

Yours truly,

The American National Bank. W. F. BATSFORD

# BLIZZARD NO OBSTRUCTION

CHICAGO, ILL., Dec. 8, 1907. THE PACIFIC WIRELESS TELEGRAPH Co.,

307 Hastford Bldg., Chicago, 111. Gentlemen:

On behalf of the Illinois Athletic Club as well as personally, I wish to express our appreciation for the very prompt and concise reports transmitted relative to the Walking Match from Milwaukee to Chicago last week. We were particularly gratified in comparing our copies with the records received, to find that not a word had been lost, and that the time elapsing in transit was much less than would have been the case had we been using ordinary telegraphic or telephone service. In view of the fact that two blizzards were raging during the three days, we think that you are indced to be commended upon your success.

Assuring you that we will be glad to avail ourselves of your service at all times, and wishing you splendid success, we are,

Very respectfully yours,

Illinois Athletic Club.

CHAS. J. ZELLER, Chairman Athletic Com.

# METROPOLITAN STEAMSHIP CO.

PIER 58, NORTH RIVER,

NEW YORK, Feb. 15, 1910

CAPT. J. W. MILLER,

V. P., Cape Cod Construction Co.,

23 Nassau Street, New York.

My Dear Capt. Miller:

I beg to acknowledge yours of February 9th, and thank you for drawing to my attention the great satisfaction the Massie Wireless Telegraph gave you as installed on the Fall River Line. We have not finally decided our piogram for the coming season, and if any change is made in the wireless installation, will certainly give Mr. Massie a chance.

Yours very sincerely,

R. MCGREGOR, General Manager.

THE NEW ENGLAND NAVIGATION COMPANY

MR. B. S. JENKINS,

Nov. 30, 1908.

GENERAL SUPERINTENDENT, CANADIAN PACIFIC R. R., Winipeg, Canada.

Dear Sir:

Mr. Walter W. Massie of the Massie Wireless Telegraph Co. has asked me to give you a favorable word concerning his system which is represented on the Pacific Coast by Mr. W. J. Smith. It affords me much pleasure to say that Mr. Massie has been operating the wireless system on our Sound Line steamers for several years, during which period it has given good satisfaction. He is a young man of clever inventive genius whom I knew in Providence, and he has improved his apparatus from time to time, kept out of the so-called "millionaire companies" and attended to his work in a business-like way.

Yours truly,

J. W. MILLER,

Vice-President.

## THE MAINE STEAMSHIP CO.

PIERS 19 & 20 EAST RIVER.

NEW YORK, Feb. 1, 1910.

MR. J. W. MILLER,

Vice-Pres., Cape Cod Construction Co., 23 Nassau Street, City.

Dear Sir

I beg to acknowledge receipt of yours of the 1st inst., with copy of letter referring to Mr. Massie's good work for wireless connections.

I will certainly keep the Massie wireless system in mind before making future contracts for the boats of this company. Yours very truly,

R. J. NOBLE,

General Manager.

