

MAY 18 '31R

Radio Corporation of America
RCA news

WORLD WIDE WIRELESS

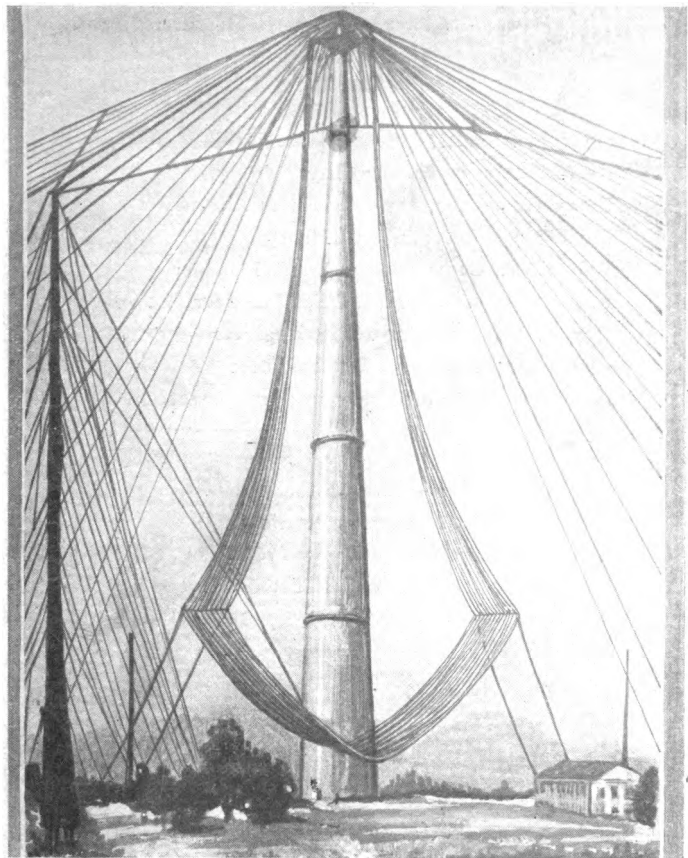
PUBLISHED BY
**RADIO CORPORATION
OF AMERICA**

JANUARY, 1921

VOLUME 2

AT
233 BROADWAY, N. Y.

BY AND FOR
EMPLOYEES



JAPANESE TRANSMITTING STATION, HARANOMACHI

THE NEW YORK
PUBLIC LIBRARY

555968A

A. TOR, LENO, AND
TILDEN FOUNDATIONS

1921

RADIO CORPORATION OF AMERICA

233 BROADWAY

(WOOLWORTH BUILDING)

NEW YORK

EXECUTIVE OFFICERS

Edward J. Nally, President
Charles J. Ross, Secretary and Comptroller
George S. DeSousa, Treasurer
Hon. John W. Griggs, General Counsel
Lewis MacConnach, Assistant Secretary
Marion H. Payne, Assistant Treasurer

Sheffield & Betts, Patent Counsel
Ira J. Adams, Patent Attorney
Harry G. Grover, Assistant Patent Attorney
David Sarnoff, Commercial Manager
William A. Winterbottom, Traffic Manager
E. F. W. Alexanderson, Chief Engineer
Roy A. Weagant, Consulting Engineer
Alexander E. Reoch, Plant Engineer
Dr. Alfred N. Goldsmith, Director of Research
140th St. and Convent Ave., N. Y.
Edward B. Pillsbury, General Superintendent
Wm. P. Van Wyck, Purchasing Agent
William Brown, Assistant to President
Lee Lemon, Director of Traffic Production, 64 Broad St., N. Y.
Matthew L. Bergin, Director of Radio Institute of America
98 Worth St., N. Y.
Robert C. Edwards, Architect

BOARD OF DIRECTORS

Owen D. Young, Chairman

Gordon Abbott	Edward W. Harden
Albert G. Davis	Edward J. Nally
Walter S. Gifford	Edwin W. Rice, Jr.
Hon. John W. Griggs	James R. Sheffield

Frederic A. Stevenson

• FRONTISPIECE

JAPAN has recently completed a powerful transmitting station at Haranomachi and a receiving station at Tomioka, which are now handling American traffic with the Radio Corporation of America. It is capable of communicating with our central states. The cylindrical mast shown in the picture is of reinforced concrete, 664 feet high.

GREETINGS FROM THE PRESIDENT.

It is with much satisfaction that I greet you all at this holiday season, coming as it does at the close of the first year of our Corporation's existence. It has been a busy year, in which we have accomplished much. The organization has been strengthened and unified, and the exchange of traffic has been successfully inaugurated with Great Britain, France, Scandinavia, Germany and Japan. Other circuits are in preparation and the outlook for the coming year is encouraging.

The full co-operation which the entire staff has rendered in making all of this possible is deeply appreciated and for it I extend my hearty thanks.

I wish also to express my admiration of the splendid spirit which our entire staff has displayed in providing so much Christmas happiness for others in the stockings which have been filled with toys, candy, books, etc. for distribution to children whose needs have been brought to our attention. This will add much to our own happiness at this Christmas season.

So here's a Merry Christmas to you all, and best wishes for a Happy New Year!



President.

THE PROGRESS OF RADIO TELEGRAPHY

By W. M. V. Hoffman, Jr.

THE development of the art of radio telegraphy during the last ten years has been so rapid that few people have an adequate idea of the progress that has been made in the transmission of messages without wires. To the general public, wireless is either a toy or an enigma. There seems to be little connection between the set of the amateur, with its frail aerial and dangling wires, and the two slim wires strung high above the cabin

of the ocean liner, whence proceeds occasionally spitting noises, as from an ineffective air gun. The great transoceanic stations, which carry a large share of the world's business, are often hidden in unfrequented places; the details of wireless communication with aircraft and submarines are guarded by the government; and while the general public is intensely interested in the art, it has not always been able to keep track of its rapid development.

Wireless, however, plays a most important part in carrying on the world's affairs, and it is particularly appreciated by the owners and masters of vessels, to whom it is not only a convenience and an asset, but is often the direct means of saving hundreds of lives and valuable cargoes which would otherwise be lost. The uses of wireless are so varied that it would be impossible even to summarize them in this article, but a few of its more important applications may be illustrated, particularly as it affects the world shipping.

To a master of a vessel bound from Europe to the port of New York, the ship's wireless is of paramount importance. During the long trip across, when for days no other ship may be in sight, the vessel is continually in touch with the land, perhaps relaying through ships far over the horizon business orders of the utmost importance, or receiving daily reports of the condition of foreign and domestic markets. In addition, a daily newspaper may be published on board, giving briefly the important happenings throughout the world. This news is received late at night from certain powerful stations such as Arlington, Va., the Eiffel Tower, Paris, or Cornwall, England.

The transmission of time signals by means of radio telegraphy was first accomplished in the United States in 1905, and this service, enlarged and extended, has continued to the present time. It is of the greatest value to mariners, as it furnishes a means by which the time, as given by the transmitted signals, may be compared with a ship's chronometer and the error of the chronometer found. Similar comparisons over a number of days enable data to be obtained by which not only the error may be found, but also the chronometer rate; that is, the rate at which it is gaining or losing.

The noontime signals on the Atlantic coast are sent out through the coast radio stations by connections with Western Union telegraph lines from the United States Naval Observatory at Washington. By the operation of proper relays in electrical circuits, the beats of the seconds of a standard clock in the observatory are sent out broadcast as a series of radio dots, commencing five minutes before the time of the final signal. By omitting certain dots in a series, the comparison between the dots and the beats of the chronometer seconds can be checked until the instant of local noon (seventy-fifth meridian time) is reached. This is marked by a longer dot, which gives the time of exact

noon. A comparison with the chronometer time at that instant gives its error referred to the seventy-fifth meridian time. Applying the difference in longitude, namely, five hours, between the seventy-fifth meridian and Greenwich, which is the standard meridian (or 0° longitude), the error of the chronometer referred to Greenwich time is determined. Following the time signals, reports of derelicts, icebergs, or other obstructions to traffic, which might imperil the safety of the vessel, are received.

If by any chance an accident should occur—a serious fire below decks, or the bursting of a boiler, or a collision, distress calls are instantly flashed in all directions. All vessels hearing this call steam to the rescue of the ship in distress, provided they are within a reasonable distance.

On approaching the harbor, if the weather is foggy or overcast, the captain of the vessel may not be sure of his exact position. Here a recently developed radio device comes to the rescue. The vessel sends out a general radio call to what are known as Radio Compass Stations located on the shore, asking for an exact position report. These stations are equipped with very accurate direction finding apparatus, by which they are able to gauge with an accuracy of within one degree, the direction from which the radio signals are coming. These readings are usually taken at two or more land receiving stations, so that the lines of direction may be plotted graphically, and the point of intersection which should indicate the position of the ship, be located with a minimum of error. After making observations, the reports are collected and co-ordinated at the nearest land transmitting station, and sent from there to the master of the vessel. This enables the master to determine his exact position, and also the distance from the various Radio Compass Stations. With this information the captain is able to proceed confidently to the mouth of the harbor.

A new device has recently been invented whereby the captain is enabled to enter the harbor in any kind of weather, and at any time of the day or night. The apparatus in question is closely connected with radio development and, in fact, some of the equipment used with it is also employed in the detection of wireless signals. In brief, the apparatus is known as the "Pilot Cable," and consists of an electric cable, laid on the bottom of the ocean in the center of the channel, through which is sent an alternating electric current of a certain frequency. On both sides of the hull of the vessel are square coils which receive by inductive action the electric impulses from the submerged cable, and convey them to a head-set worn by the wheelsman. If the vessel is directly in the channel, and over the electric cable, the sound will be equally loud in both ear pieces of the head-set. If, however, the vessel varies from her course, the sound will be louder in one ear piece than the other, and this fact enables the pilot to hold

his vessel directly over the cable. In this way she may proceed to her dock in perfect safety, where all arrangements will have been made for her reception, the captain having sent wireless messages to the authorities of the port while yet some distance at sea.

These are the ordinary uses to which a ship's wireless would be put during a voyage from Europe to America.

The evolution of the practical method of signaling by electric waves was distinctly the creation of Signor Marconi. His epoch-making discovery was announced to the world in 1896. The success of his first experiments pointed to enormous possibilities in this new field and aroused the interest of a number of speculative scientists and engineers throughout the world. Following the principles first laid down by Marconi, experimentation was begun on a vast scale. This eventually culminated in the production of a complete and reliable system of electric wave telegraphy.

The first commercial applications of the Marconi system in ship to shore signaling were made about the year 1902, although a number of practical demonstrations had been made previous to that time. Several trans-Atlantic vessels were equipped with wireless apparatus and the results were so satisfactory that a number of commercial companies were organized throughout the world to exploit radio patents.

Extensive commercial applications of wireless signaling soon took place and these brought to light new problems. The principles underlying the apparatus for the production of electrical waves were carefully investigated, and as they were found out and better understood, improved apparatus was developed which increased the useful range of transmission. Attempts were then made to signal by radio from continent to continent.

Marconi's first achievement in long distance working was the successful dispatch of wireless telegrams from Cape Cod, Mass., to Poldhu, Cornwall, England, in 1903. Many obstacles were met with in the efforts to bridge these great distances, but by the application of sound engineering principles they were overcome to such a degree that a commercial wireless service was begun between Glace Bay, Nova Scotia, and Clifdon, Ireland, in 1907. This was the first reliable trans-Atlantic radio route and it has been in commercial operation ever since. There are now several trans-Atlantic and trans-Pacific high power stations in daily operation. These are owned by the Radio Corporation of America.

So valuable was the assistance rendered to shipping by radio signaling apparatus during the years 1909-1912, that compulsory legislation was enacted by the great nations compelling the use of wireless sets on all vessels above a certain tonnage. During these years the art was given a great impetus. New discoveries were made, improved apparatus was developed and standardized, and the range of transmission and reception was markedly increased.

Prior to 1912, the so-called spark methods of producing electric waves were in the majority. This type of apparatus produces what are termed damped electrical oscillations or waves. Since that time the use of apparatus producing sustained or undamped electrical waves is on the increase, particularly in the high power stations for long distance transmission.

Sustained waves are generated by a high frequency alternator, by an arc generator, or the vacuum tube. These waves possess some desirable properties, chief among which is the selectivity obtainable, that is, freedom from interference when several stations operate in the same vicinity. Thus the extended use of undamped waves will permit the number of commercial radio stations to be multiplied with no more interference than would be obtained from a lesser number of stations using the old time spark systems. In addition to the inherent advantages of so-called undamped wave transmitters, pointed out above, such apparatus makes possible wireless telephony. In fact, undamped wave transmitters are now being manufactured which may be employed alternately for either telegraphy or telephony at the will of the operator. The time is not far distant when passengers at sea will be enabled to talk to their friends ashore over a connection extending from the land wireless station to the subscriber's home telephone.

(To be continued)

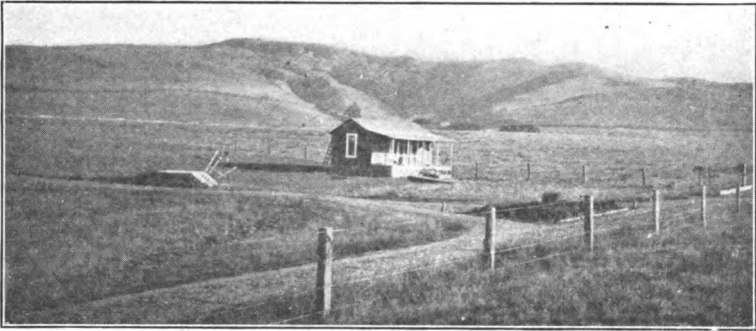
“KPH”—SAN FRANCISCO MARINE STATION

By A. A. Isbell

MANY believe in the reincarnation of the soul. Radio operators on the Pacific on October 1, 1920, testified to the reincarnation of the inanimate, for on that date “KPH” was born again. Its voice, while not yet full grown, gave evidence of the same quality and penetrating power as that possessed by its progenitors, “PH” of Russian Hill and “KPH” of Hillcrest, for during preliminary tests, with the sun at its zenith, traffic was exchanged with ships nearly 900 miles from San Francisco, and at night communication was held with “KHK” in the Hawaiian Islands.

The grandfather of “KPH” was erected in 1907 on Russian Hill, San Francisco, shortly after the great fire, and was, at that time, considered the most powerful station on the Pacific Coast. The call letters were “PH” and the input power of its transformer was something like 15 kw. This station, in conjunction with “HU” (now “KHK”), was responsible for many historical wireless records—reports came from Japan in 1908 that signals from both stations were heard there. About 1 A. M. October 12, 1908. Marine Superintendent Malarin, who was then operator at “PH,” heard an unfamiliar spark calling “PH” and signing “HU.” He

immediately answered the call and then for more than an hour and a half the Russian Hill station conversed with Construction Engineer Isbell, who, that night, had completed the work of building the "HU" station, located near the site of the present high power station at Kahuku, for the Wireless Telegraph Company, Ltd., of Hiawaii. This conversation was an historical milestone, for it was the first time that Hawaii and the Pacific coast of United States had been connected by means of wireless telegraphy.



HILLCREST

After a few short years of extreme activity, "PH" station was dismantled and its mast, and another, erected at Hillcrest, San Francisco. This station, with the advent of the three-letter call, became the original "KPH" and before its dismissal as such had several owners and types of apparatus. The original set of apparatus was rated from 10 to 15 Kw. and was equipped first, with an open spark gap on which was installed a compressed air blast; later a non-synchronous rotary gap was installed. The set was tuned to 1,100 meters and was frequently heard in Japan. Regularly during the winter months, traffic was exchanged both ways with ships of the Pacific Mail while the vessels were anywhere from the Golden Gate to the Inland Sea of Japan. Those ships were equipped with 5 Kw. 60-cycle open-gap spark sets, tuned to approximately 900 meters; the receiving side of the apparatus was of the crystal type, bulb receivers at that time being practically unknown.

On April 6, 1917, "KPH" was taken over by the Navy Department and some months later sold to the Government, spelling, at that time, what we all thought to be the doom of commercially operated Marine Coastal stations.

The new "KPH" station is located at the Bolinas high power station, approximately 15 miles in an aviation line from San Francisco, but by the present auto stage mail route it is four hours from the city. The apparatus is housed in a substantial wooden building about 800 feet from the power house and the antenna is hung from

the 260 foot level of one of the steel masts of the high power antenna system, the antenna itself being erected at exactly right angles to the large antenna. The present transmitter is of the 2 Kw. 500-cycle type and is tuned to wave lengths of 300, 450, 600, 1,700, 1,800 and 2,200 meters. It is controlled by operators in the high power operating building at Marshall, 25 miles away, through utilizing one of the four wires that the Radio Corporation owns and operates between the two points. In other words, traffic through the Marine coastal station is handled exactly as that of the high power system. Messages received at Marshall from ships are immediately placed on one of the leased lines between Marshall and the city office at San Francisco, and promptly delivered from the latter point. Traffic destined for ships is handled in a similar manner in the reverse direction, the messages either being picked up by messenger or received by our telephone operators.

Within a few months an undamped wave transmitter will be in operation, which will enable "KPH" to take over the handling of traffic with ships equipped with undamped wave transmitters.

A few days ago an old-timer, just arrived in San Francisco, who knew the earlier "PH" and "KPH" and the difficulties of pioneering in wireless, said: "When, a few nights off the Coast, I heard 'KPH' calling my ship, I could hardly credit my hearing, it seemed too good to be true, and I concluded, for a time, that my last nip of the Chief's Scotch was wood alcohol. However, I came to O. K. and, believe me, I burned the air in handing 'KPH' a string of messages and when 'F.W.' ok'ed the lot without a break or question, I acknowledged the fact of the reincarnation of 'KPH' with joy and thanksgiving, and upon going ashore to pay my respects to the Post Captain of our line, he emphatically echoed my sentiments and ejaculated: 'What did you bring from China?'" The old-timer's Port Captain is a well-known character in San Francisco and has the reputation of being a *dry* wit.

RADIO INSTITUTE OF AMERICA

NEW YORK

ON January first the old Marconi Institute changed its name to the Radio Institute of America. We have an average attendance per day of two hundred and ten men. There are eight different classes for technical instruction. The code tables are divided into five different speeds. Two instructors are on hand during the day session and three in the evening. Hours per day from 1 p. m. to 5 p. m.; evening classes, 7.30 p. m. to 9.30 p. m., five days per week. Fee for day instruction, \$20 per month; \$15 per month for evening classes. Half rates for company employees. Code work includes hand sending, vibroplex and Wheatstone transmitter, plus traffic lectures. Technical course includes theoretical explanation and practical demonstration of every

commercial apparatus in use on shipboard to-day. Entire course prepares a man in from four to five months to pass the Government examination for a first-class commercial license.

Here are just a few items we would like the prospective operators to consider. The steamship companies rent or buy radio apparatus for use at sea. In other words, they take out safety insurance. As the operator in the majority of cases is the only man on board ship who understands radio, it is up to him to see that this insurance is given. Therefore, expert technical knowledge and operating ability are required in order to cope with trouble in times of stress. The operator's first duty is toward the safety of the passengers and crew, and it makes a man feel good when he knows that through his ability safety is largely assured. There have been too many complaints regarding the way the operators bring their sets to port, and in the majority of cases they should be given a vacation on the beach. The trouble is partly due to a poor understanding of the fundamentals and a "don't care" attitude. This has got to stop, or there is the possibility of a serious disaster at sea, simply because a fuse blew or the emergency apparatus was not kept in condition. Don't be afraid of getting your hands dirty or doing a little studying in spare time. It has been the practice (more or less of second operators) to lay back and let the chief worry. They must be made to realize that the chief may not always be with them, and then again, they expect to be seniors some day. The moral of all this is: "Know your set and be able to pound the brass correctly."

ABSTRACTING OF SHIPS' BUSINESS

IN the last issue of the *World Wide* we dealt fully with the transmitted side of the abstract, and, in this issue we shall, in the same manner deal with the received side.

At the top of the abstract there is the space for the name of the vessel and the period the abstract covers. This must always be filled in, even if no traffic is received.

Columns 9-10-11-12-13 constitute the debit side of the abstract, and columns 14-15-16 the credit side.

Column 1—The date the message is received will be entered in this column.

Column 2—In this column will be shown the call letters of the coast station, ship, or relaying station from which the message has been received.

Column 3—The name, in full, of the town of origin, where the message was accepted for transmission to the vessel.

Column 4—In this column the name of the coast station, ship, or relaying station from which the message has been received will be shown *in full*.

NEW YORK RADIO CENTRAL

IT has been felt that it would be much better to wait for our start in *World Wide Wireless* until the Radio Central was under fair headway, but there has now been a sufficient amount of work done to justify a short statement regarding it.

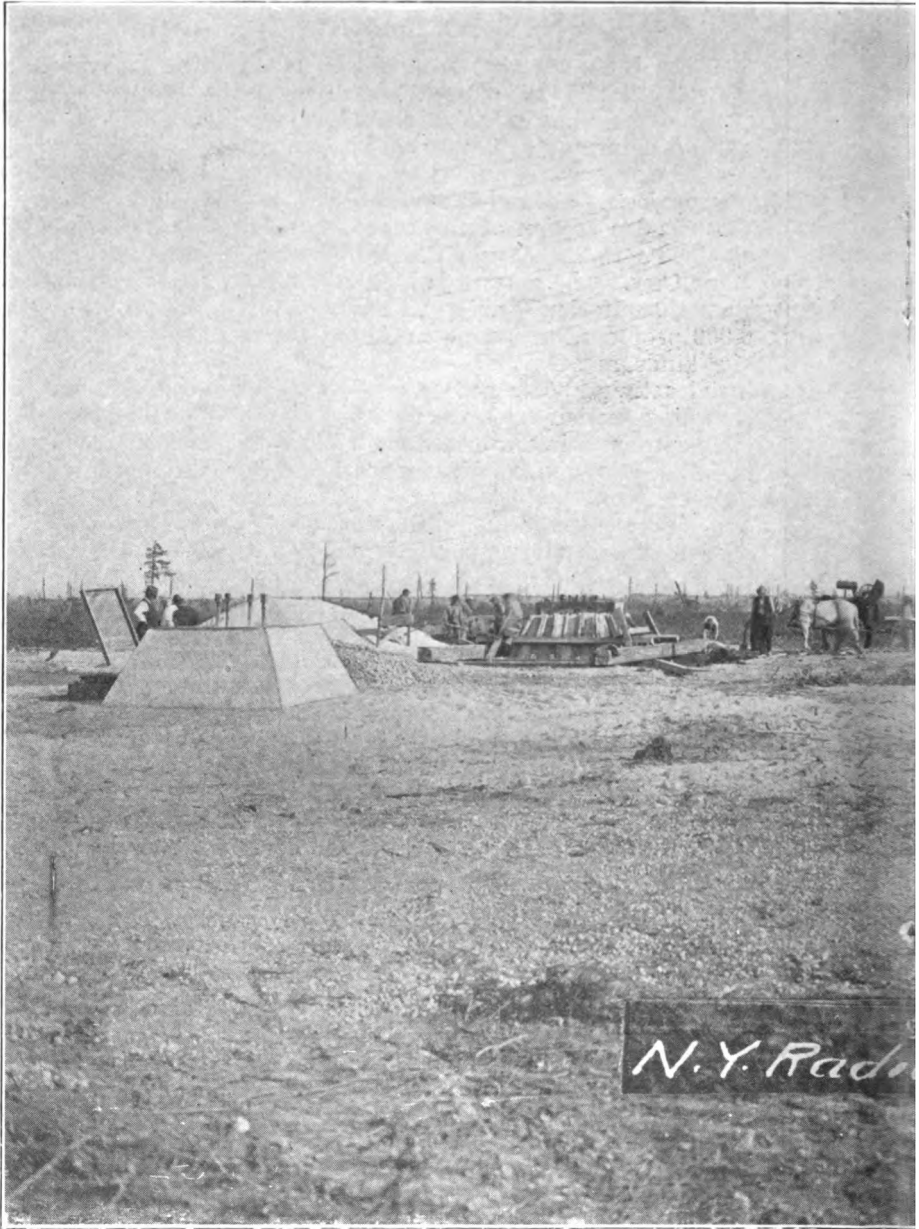
The property acquired by the Corporation for the Radio Central project is about ten square miles in area and is situated in a well-wooded section of the beautiful north shore of Long Island, about seven miles east of Port Jefferson and sixty-seven from New York City. The ground is high and the climate somewhat milder than that of New England. Port Jefferson is a village of about 3,000 people, near enough to the station to afford supplies of various kinds and furnish a reasonable amount of amusement and social activity. The people of Port Jefferson and the entire surrounding section have been most friendly to the enterprise, and our representatives are meeting with a very cordial reception. It is felt that living conditions on the station will prove very good indeed.

Our readers will recall that the printed accounts of this station, which have appeared from time to time, have stated that the project resembles, in general, a wheel with twelve spokes or wings, each wing having six towers 400 ft. high with a 150 ft. crossarm for the support of the antenna. These wings are numbered clockwise, Number XII being the wing nearest to due north. The power station is situated at what would be the hub of the wheel, and the community center a little distance off on a turn-pike, which is a principal route of travel through Long Island, and which will be a state road very shortly.

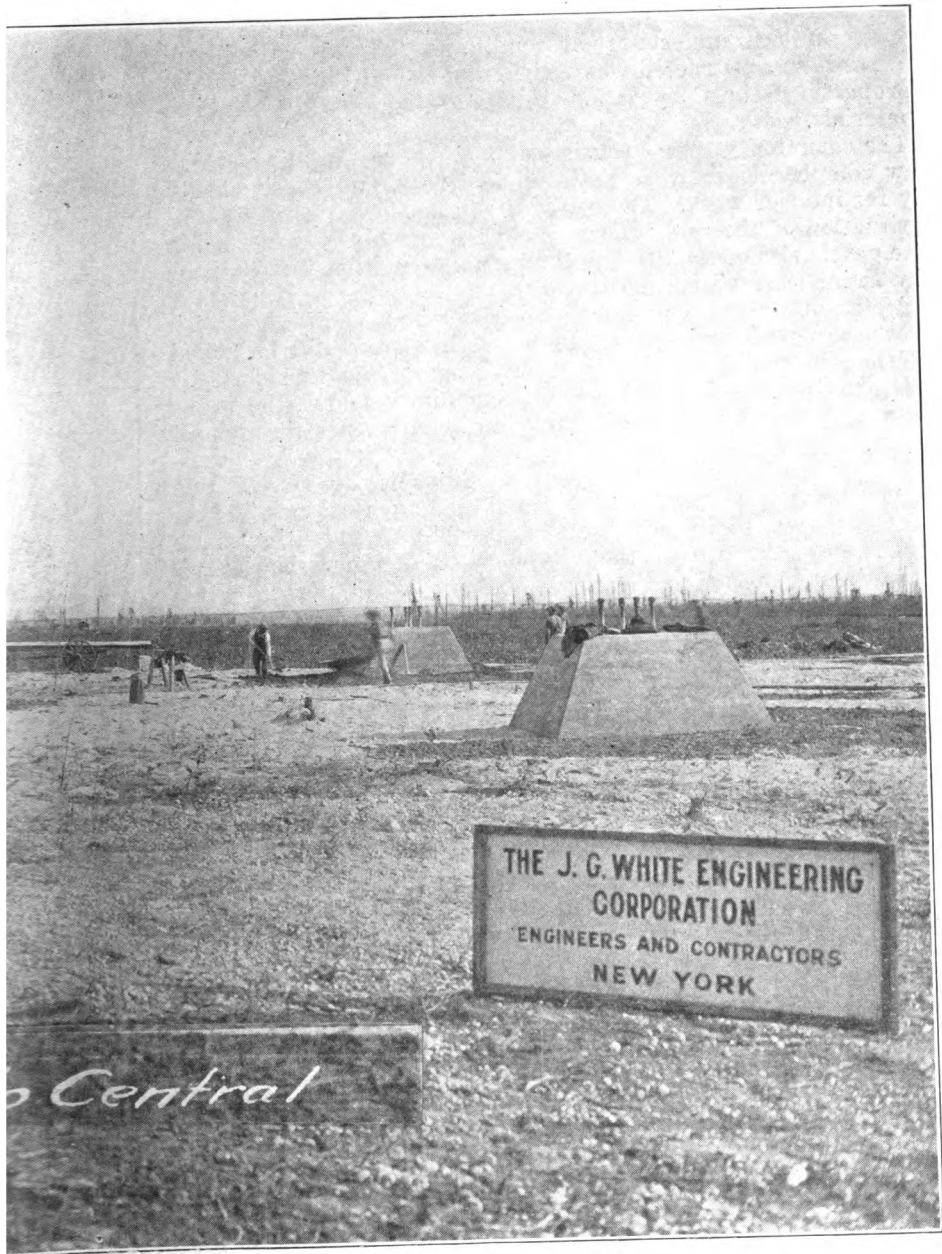
Construction has been started by our contractors, the J. G. White Engineering Corporation. The scheme is laid out in units and the force is now at work on the first one, consisting of wings V and XI, together with the first section of the power-house and the community center.

The foundations for the towers are practically complete along wing XI. The cut will give a good idea of one set of these bases, which support a tower or mast somewhat similar to the Eiffel Tower in general shape, but having less spread at the bottom. The towers will need no guys, being self-sustaining. As the spans are 1,250 ft. in length, it can be seen that this makes the wings about a mile and a half long, and considerable clearing has been necessary for the proper accommodation of the ground system. It might also be mentioned that these foundations have but about 1/20 of their bulk above ground so that the best part of the work does not show.

Quite a system of roadways has been built in order to give access to the various portions of the grounds, and the natural materials at hand give a suitable surface for the traffic expected dur-



N. Y. Radio



ing the operation under normal conditions. A private railroad siding has been constructed where the Long Island Railroad crosses the property of the Corporation, thus allowing a ready handling of materials.

The community center consists of a clubhouse building, which is now completed as far as the shell and roof, and is practically ready for interior work. The cottages will be started a trifle later. The situation of the community center is particularly good, being on the gentle rise of land facing the turnpike and not far from the Rocky Point railroad station.

A start has also been made on the powerhouse building, which will be completed during the winter. Other units will be added from time to time. An excellent water supply is furnished by artesian wells at the powerhouse and community center, the water being very pure and of a uniformly low temperature throughout the year.

The natural beauty of the surroundings is, by Mr. Nally's direction, being preserved and utilized as much as possible in the various parts of the work, even the cooling pond being made an ornamental feature of the approach to the powerhouse. A tract of land running to the shore of Long Island Sound is reserved for a bathing beach and is easily accessible from the community center.

A former country residence makes very good staff and office quarters for the construction forces, and there is space for a small reading room, which contains the latest magazines and a Victrola, the latter given by Messrs. Day and Jackson. This house is heated, has a number of buildings surrounding it, which are used for stores and a temporary shop, making a construction camp which is much more comfortable than most.

As at all other stations, we occasionally have a few things out of the ordinary, such as fighting forest fires, persuading people in search of antique furniture, which is supposed to exist in the various old houses acquired with the property, that such is not the case; settling disputes among the tenants, endeavoring to avoid those who have original schemes for building the station, and training the Fords to climb around all portions of the work. In some instances it has been noted that no training was needed.

We have learned that it is the proper thing to give an account of all motor vehicles on station. We do not travel in the Rolls-Royce class, but the Corporation owns at present one Republic, one Ford and two Packard trucks, two Fordson tractors, one ordinary or cast iron Ford touring car, two de luxe or self-starting Ford touring cars, one Chevrolet light truck, perfectly and entirely constructed of spare parts, as well as all the various machines in which the men come to work. These are not Fords, and we regret that we cannot list them as they change too rapidly.

The cooking is excellent, and those who get down from the head office are always ready to return for another meal. This seems the place to state that Helme was the first mess officer, and did not resign until he had everyone trained to pay mess bills within thirty seconds of presentation.

In November Mr. Nally made an inspection of the Radio Central, accompanied by Messrs. Sarnoff, Reoch, Edwards and Lush. It is to be hoped that he will find time to repeat this visit often.

We will conclude with the statement that no one is more popular around the works than "Bill," our official mascot. "Bill" appeared one day and hung around until Jackson adopted him. At first Jackson thought that it might be well not to make claim to the dog or to procure a license, until a search had been made all over Long Island with a view to finding a possible owner. "Bill," however, had such persuasive powers that before a week was over Jackson had invested in not only a license, but a collar. "Bill's" principal amusement is motoring.

We have an active force on the works, every member of which is anxious to show results, and we hope before long to exhibit something substantial for inspection.

NEW BRANCH OFFICE

A new office has been opened at 933 Broadway, New York, with William Cockett as manager, for handling trans-oceanic traffic in that busy section of the city.

APPOINTMENTS

Effective December 1, Mr. G. Harold Porter has been appointed General Superintendent, Marine Division of the Commercial Department, Radio Corporation of America.

Mr. Porter will be in direct charge of all the marine activities of this company, including contract solicitation, maintenance and operation of marine stations, and will report to the undersigned as heretofore.

All correspondence, requisitions, etc., relating to marine business should hereafter be addressed direct to Mr. Porter, as follows:

Mr. G. Harold Porter,
General Superintendent, Marine Division,
Commercial Department,
Radio Corporation of America,
233 Broadway, New York City.

Mr. T. M. Stevens has been appointed Assistant General Superintendent, Marine Division, and will be located at the head office, New York City.

DAVID SARNOFF,
Commercial Manager.

PLANT ENGINEERS' DEPARTMENT

BOLINAS

ENGINEER-IN-CHARGE GRAFF left Bolinas on December 7th to take up his new duties as Engineer-in-Charge of the Kahuku station.

Shift Engineer Howard is acting Engineer-in-Charge during the interim between Mr. Graff's departure and the arrival of his successor.

NEW YORK

ALEX E. REOCH, Plant Engineer, has returned from Montreal, where he spent the holidays with his family.

Shift Engineer E. P. Hill has been appointed to the vacancy caused by the dismissal of Shift Engineer Thomas.

Dynamo Tenders Abbott, Baker and Havel replace Dynamo Tenders Brown, Kennedy and Goodrich, resigned.

KAHUKU

W. H. Graff has been appointed Engineer-in-Charge, succeeding Mr. Dean, who has been acting in this capacity for several months. Mr. Dean is shortly to return to the States for other assignment.

Machinist N. Hackenberg has resigned, being replaced by J. Kurita.

MARION

The rigging staff has been completed by the appointment of Riggers Babineau and Higgins. No other staff changes have occurred this month.

NEW BRUNSWICK

There have been no staff changes this month.

BELMAR

The first hop of the season was given under the auspices of the Belmarconi Club on December 4th and proved an immense success. A large and enthusiastic gathering tripped the light fantastic toe until the wee sma' hours, and even then were loathe to quit.

Quite a feature of the evening was the number of men who, up until the last moment, had strenuously asserted that they could not dance, but who, under the genial influence of music, girls and punch, became actually eager to display their lack of Terpsichorean accomplishments.

Murray, who Irvin Cobb would describe as the "Life of the party," gave an exhibition of some new and wonderful steps, which, he claimed, constituted an Irish jig, but which reminded the onlookers of a St. Vitus' dance.

It is, of course, understood that in these days the punch, made of grape juice, etc., does not possess the authority it once did; but, nevertheless, there are tricks in every trade, and the compounders

of the delectable punch served last Saturday certainly displayed their artistry and undoubtedly will be called upon to officiate on all future occasions. It is a fact that the demands for their product far exceeded the supply and its dispensers attained enormous popularity.

The solid refreshments were also highly appreciated and reflected credit on Mrs. McLaughlin and Mrs. Barsby, who were appointed honorary members of the Grub Committee.

After the musicians had played themselves out, an impromptu concert was given, with Miss McLaughlin presiding at the piano, and everybody joining in the chorus. By the time hoarseness of the throat had developed, most of the bunch were ready to call it a day, and agreed that it was the best dance ever.

Tuthill was the real hero of the night. He washed the glasses and dishes before going to bed, besides lapping up all the fruit left in the punch-bowl.

The Misses Marjorie and Esther McInnis, of the head office staff, were present and were in great demand. We hope they will grace our next jig, when we can promise them an even more enjoyable time. Meacham also says that he will give them some more physical culture drills.

The next dance is scheduled for New Year's Eve and should be a humdinger, as it will be either a masquerade or a hard times party. Our New York and New Brunswick friends are cordially invited, and we are looking forward to a big night.

We accord a hearty welcome to Messrs. F. R. Tuthill, G. J. Murray, A. E. Maclachlan, C. J. Matthews, F. F. Redfern, T. Ward, R. E. Hart, L. H. Ward and E. V. Fleming, who have joined us during the past month.

Double congratulations to W. H. Taylor, who recently became the proud father of a baby girl. Everybody is doing well except the father, and he is expected to recover in time.

MARION

DURING the latter part of November we had a visit from several Swedish gentlemen, who were here for the purpose of inspecting the station. They were accompanied by Mr. Alexanderson and Mr. Lindenblad. Mr. Pillsbury was also here at that time, and went over some of the work with the Engineer-in-Charge.

The riggers have returned from New Brunswick, and are busy making some changes on the antenna. Mr. R. T. Rossi has been here off and on to supervise the work being done.

Alternator number one is nearly ready for operation again. The large transformers have been removed from the top of the machine, and are now placed on the floor in the magnetic amplifier room. This arrangement is meeting favor with everyone, espe-

cially the alternator attendants, as it greatly facilitates the work of cleaning around the machinery.

One of our number left us on the 15th. He was Adam Potgieser, the rigger. Adam was the life of the crowd, and we acknowledge his departure with deepest regret. He has been the life of the bunch, and his ready wit and good humor have won him a place high in the esteem of his friends. We are gradually becoming used to such disappointing events—in fact, ever since prohibition went into effect we can say with the utmost surety that we can all give old man Pessimism a run for his money. We understand Potgieser will go in business with his brother at Pater-son, N. J.

A new arrival is Mr. McGeorge from Greenwich, Conn. He comes here to fill the shift engineer vacancy caused by Mr. Hudson's resignation. Mr. Hudson has gone to work for the General Electric Company.

The Mess held a dance on November 18th, which was a success. We haven't really had a chance to attend those Chatham dances, but cheer up, old "C.M.," we'll be there before long.

Alexander Patten, dynamo tender, has been transferred to Tuckerton. His place was taken by T. S. Morse, of Mattapoisset, Mass. Mr. Morse is an electrician of several years' experience, and is considered locally an expert on Ford cars.

Kremp went deer hunting last week, but at the present writing we are unable to state what luck he had. Aside from being a very efficient dynamo tender, Mr. Kremp is considered a very good shot. He is reputed to smoke "Camels."

Vermilya's latest record with his "backyard" wireless was made one night last month when he communicated with Little Rock, Arkansas. "Speedo" has an audion bulb so sensitive that he can hear the waves sent out by the spark plugs of a Ford car half a mile away.

We regret it was through an error that we did not get our little bit in the last issue of *World Wide Wireless*, but it won't happen again if we can help it.

In the meantime we would like to hear from some of those G. E. men who went out to Kahuku. Kahuku readers take notice and pass this word along to Sully Tawes.

KAHUKU

TO those familiar with the haunts of Kahuku, the following may seem a bit doubtful, but it is quite true that we had an "Honest to God" party consisting of a combination dance and beach party. That such a feature is quite uncommon was evidenced by the expressions on the faces of the Oriental servants who seemed to find great difficulty in finding the couple who were getting married; this apparently being their only under



OPERATING BUILDING, KAHUKU

standing for such gatherings in these unknown parts. However, it has been shown that it can be done, and with success, too, as each individual participant declared. Credit must be extended to our friends Bailey, Street, and McNass, of Koko Head, who helped tremendously by turning their cars into jitneys from Honolulu. The Hotel was fit for the occasion resembling a regular Japanese bazaar, and we'll always know now to select Slewing, Flannigan and Brown for the committee.

We can't help but think how our many friends back in the States will envy our location, if not yet, soon, when we tell them of the pleasant bathing parties on the beach these full moon evenings.

With the work of installing three of the new alternators started here, the station is taking on the looks of a gold mining camp. Two bunk houses and kitchens have been erected, and the number of construction employees would support a regular saloon.

The members of the staff have often wondered why Mr. Dean wears out so many tires, and still has such a pleasant disposition. It appears there are laws older than yesterday that apply to this case.

We are planning a big hallowe'en dance which will be a hum-dinger, and you can rest assured we'll tell you all about it.

What do you say now Bolinas?

KOKOHEAD, OAHU

O—GOLLY—HOW—

This tropical place with its waving palms and sunkist shores has been too much for we brothers of the "key" to even indulge in a little chat with you Easterners and others, but now that our space in the service magazine has been used up by others, we feel that it's about time we "came back," so here goes.

Several changes have taken place since we last appeared in these pages and new faces have appeared amongst us. Remember Old Boy Wally, the second best steel guitar player, he left us to go back to 'Frisco. These hulas and the native okie didn't agree with him; also he claimed he wanted to see some white people once in a while; so much to our regret he left us. Good luck, Wally. Then there was Saxophone Marty, who followed in his footsteps; he decided that these dark-skinned maidens had nothing on his "only" one, so he sailed for the coast midst showers of regret. He hasn't left us altogether, 'cause now we hear his dainty fist at Ket, for which we all are glad. Show 'em, Marty, how to make that code word "ANBK." "Speed Demon" Corey, the famous motorcycle rider, old time WU op, and A. B. Pontius, veteran of the great war, whose tales of the dugouts make your hair stand up, replaced Wally and Marty. They sure are fine fellows and we all feel lucky to have such good ones among us. Our former power-house engineer, Henderson, whose tales of "When I was in the Navy" made us feel for him, has gone back to sea. The Navy made a sailor out of him and he had to go back. Cecil Bailey—you all know him—replaced Henderson. Bailey has one failing, and that is to see how much of the native beverage he can dispose of without feeling hilarious. We all feel lucky that we have him in our midst, 'cause he's our repair man. When our bikes go wrong, or the flivvers, too, why we get Cecil up, and the good old soul fixes 'em up. If it wasn't for him our station Ford would have long ago seen its end. Then, Speedy Baldwin came from Ket to join us, and he was welcomed with open arms. Baldy couldn't resist these warm breezes after freezing at Ket, so back he came. He says it's the only life. We agree with him. (???) LaMoe joined us recently, and his excuse for coming back was the same. Belmar, he says, is the bunk, and now he's enjoying a daily swim at the "Beach at Waikiki."

The rest line up as before. Street, who believes Chalmers motor cars are the best, is still with us. Cherrigan, too, who rides an "EX" that saw service in the civil war, makes his daily trips to us from town. Anderson, the Jap Wizz, still continues to handle that circuit with the skill that only an old-timer could do. Bill talks to those Japs like he was their father. Fine work, Bill. McNess invested in a Nash and now rides in style. One would think that he was a prosperous plantation owner, but Mac says a Nash is N. G. Give me back my Doohick, he says, and I'll make the trip from town in ten minutes. Mac, like all the rest of the married folks, has to live in town and comes out here daily to go on watch.

Those stakes that were planted for the proposed cottages have rotted away, and hopes of ever seeing a "city" out here have died. It's tough work riding twelve miles to work and then back again over roads that look like they were made for a

“Rocky road to Dublin” attraction at an amusement park. Maybe some day we will have a real road, and then how happy we will be. Wilhelm is still among us. Now that the Matson people have put a boat on the Alaskan run, he gets his mail with more promptness, and is always smiling. When is it going to happen, Bill? Last, but not least, is our worthy Superintendent, who joined us on August 1st. Mr. Oxenham replaced Mr. Allen, who resigned to return to the States. Oxy is looking for prospective victims to play tennis with, but so far hasn’t found any. There’s some agitation here of getting up a team and going over to Kahuku to trim the “natives” there. What you say to that “KU”?

Anderson and Wilhelm have been appointed supervisors.

Traffic moves here with the speed of light. On Nov. 2nd we handled the election returns and beat the cable and Naval Radio by many minutes. Our bulletins were printed in the local papers before the Associated press items, and that’s going some. Some of you Easterners want to come out here and see things move. “Speed and accuracy” is our motto, and it’s heavy on them both.

We had a dance out here recently, and about fifty people were present. A five-piece Hawaiian orchestra supplied the music and Bailey was the master of ceremonies. He saw to it that all were supplied with lots to eat and drink, and when the strains of Aloha had died away and all started for home, everyone voted it a huge success. We hope to have another one in the near future.

The alternator installation at Kahuku is going along fine, and by the first of the year we hope to blossom out. Watch out for us then.

GULF DIVISION

M. HATFIELD has re-entered the service and has been assigned to the John R. Gibbons, of the Aluminum line, relieving Murray Buchanan, who was called home on business.

District Manager Broussard reports everything running smoothly in his district. Recent transfers made by him include the return of Frank C. Justice from the Mascotte to the Boston district, and the transfer of P. P. Nisbet from the junior to the senior rating to fill the vacancy caused by the transfer of Justice. Mr. Broussard reports that John M. Carr, now attached to the Joseph R. Parrott as purser-operator, has been elected to bring out the new car ferry, now under construction in the Philadelphia district. Carr will be replaced on the Joseph R. Parrott by H. C. Ely.

District Manager Ellsworth has requisitioned a quart of Pyrene fire extinguisher liquid—says he is “hot under the collar.” Had a real tough job fitting up the Baytown (Ex-Reginolite) with

one of the new "P-8" standards, at a little burg called Baytown. Baytown is about as accessible to Galveston, or, for that matter, any other place, as is Greenland to New York.

Assignments at Galveston include George G. Norris to the Paulsboro, Fred T. Brennan to the Moshico, and H. O. Zahn to the City of Lordsburg.

With great regret we have to announce the death of Operator James E. Taws, late of the City of Lordsburg, at Galveston, on November 26th.

Recently one of our very kind neighbors next door treated us to a nice cold bottle of—Mississippi River water, the bottle bearing the label of a well-known brand of stimulant. Operator Hille, who, by the way, has been on the Jalisco long enough to entitle him to part ownership, was the first one to spy the bottle and ask permission to sample it. Permission was granted and Hille hasn't pestered us since.

We were very much elated at seeing how nicely our friends in Baltimore got along with Form 98. Misery loves company, and although it is nearly five years since we first tackled that little blue sheet, we still remember some of the lovely expressions that were cut loose.

Seth B. Moorhead was recently assigned to the C. A. Canfield at Galveston in place of John C. Clayton, now in the John Sealy hospital in Galveston.

There is a lot of difference between some people. For instance, recently an operator asked to be relieved from a nice big ship because the radio room was located aft instead of amidships. A few days later we sent an operator to a little tugboat over in Texas and we have just received a letter from him telling us how well he was satisfied with his assignment.

Rex G. Bettis has been placed in charge of the newly-commissioned steamer Tuscaloosa City, of the U. S. Steel Products Company.

Geo. H. Pascoe, after having been confined at the Marine hospital for several months, is now out on the Shooter's Island.

Miss Lena Michelsen, after several years of service on the Tamesi, has been placed in charge of the radio on the new steamer Eugene V. R. Thayer.

EASTERN DIVISION

NEW YORK

WE have a sad item of news to report this month in the death of one of the most esteemed operators in the Radio Corporation's service. James Ernest Taws passed away at the Marine Hospital in Galveston on November 27. He had been ill for some time and found it necessary to be detached from the City of Lordsburg and go to the hospital. Mr. Taws first entered our service December 19, 1919.

Word has recently been received here that the boiler aboard the West Grama exploded at sea and that the steamer put into Genoa for repairs. This will delay the return of our old friend, John Nash, but we hope not for too long a time.

Leslie Veader is now junior on the Santa Eliza, under C. L. Fagan.

Frank A. Kurz and Solomon Goldman resigned from the service in good standing during the month to enter other lines of work.

John Glaister sailed on the S. S. Braddock.

Carl O. Almquist is now on the tug Barrenfork, which is on a wrecking cruise in southern waters.

Frank E. Black took out the Lake Sterling on a few minutes' notice. This vessel is trading between New York and Richmond, Va.

Samuel E. Leonard, recently of the Great Lakes division, is now running on the Lake View, making South American and West Indian ports.

George E. Paris, who gives promise of becoming one of the best and most popular of the men in our division, had the misfortune of leaving his effects on the Wilhelm Jebesen, but through the kindness of Mr. Ellsworth at Galveston, they were returned to him. While waiting for them he filled in on the Invincible, but is now on the unassigned list awaiting a big ship.

BOSTON

HOWARD S. WALTER, Elmer's brother, has returned from the West coast on the Springfield, which has laid up indefinitely for repairs.

Herbert H. McCalmon is on his way to the Orient on the new Japan Arrow, fitted out at Fore River with a type P-8A set by Constructor Elliott, who insists the Japan is as big as the North Land or U. S. S. Arizona.

The Belfast has laid up and Aloysius T. Barber is a frequent visitor at the office. He has not yet taken on the harried expression worn by Bob Philbrook, who has been so forced to economize that he is planning to buy a flivver to run, instead of the Haynes.

Leo. J. Marshall relieved D. M. Evans on the George W. Barnes.

Otto Curtis, of the tanker Kaweah, reports as follows: "Found H₂S gas in oil had made film over crystal. Scrubbed same with brass polish, then washed it with soap and water, and put same in sun to dry. Covered it with uranium, so that its radio activity would be restored. In fifteen minutes its sensitivity was restored." Suggest some of the boys try this out and report results.

K. C. Bridgham, once attached to the Alanthus, and for that reason widely known to radio men, returned to Boston with a repu-

tation for globe-trotting. 'Frisco is now a way station on Bridg-ham's map.

Noel Smith, of the Nacoochee, is anticipating a lay-up, but says the latch string is always out for him at Block Island.

SOUTHERN DIVISION

PHILADELPHIA

THE Philadelphia office recently had the pleasure of a visit from Miss Lena I. Michelsen. Miss Michelsen, we believe, is the only operator of her sex on the Atlantic coast at the present time. She has been assigned to the S. S. Eugene V. R. Thayer, a new tanker recently completed at Wilmington, Del. For over three years Miss Michelsen has been performing the duty of an operator aboard the S. S. Tamesi, a Gulf division ship. Many operators are, no doubt, acquainted with the good work she has been doing on that vessel. Her father, Captain Michelsen, who was formerly in charge of the Tamesi, will be in command of the Eugene V. R. Thayer when that vessel leaves port.

BALTIMORE

G. W. HAYES, of the New York office, was a recent visitor at this office.

Operator Hoffman, after a nine months' trip on the Brazilian steamer Jaboatoa, is back with us again. We understand he is going to return to his home in the Bahama Islands.

Joseph Portman has left the service and is now in the employ of the Independent Company.

We are pleased to hear of former Southern Division Superintendent Thos. M. Stevens' appointment as Assistant General Superintendent of the Marine Division of the Commercial Department. He paid us a flying visit recently, when en route to Washington.

Operators George P. Turiga and Joseph P. Hunter, of the steamers Otho and Careneo, respectively, turned in abstracts which were correct in every detail. Messrs. Turiga and Hunter are the first operators, during the past ten months, who have turned in absolutely correct reports.

The tugs Astrea and Volant, of the Davison Chemical Company, of Baltimore, are at present being fitted with standard $\frac{1}{2}$ KW. panel sets.

Constructor Phil Grantlin recently purchased a new machine. Phil got along wonderfully well for the first two weeks said machine was in his possession, and while his instructor was with him, but Phil couldn't resist the temptation to take said steel steed out one fine Sunday afternoon without license and instructor. Phil tells us he didn't hit the street car, but that the car hit him. Judge Staylor, at the Traffic Court, knows the whole story, and now friend car is awaiting extensive repairs and its owner waiting

for the Automobile Commissioner to grant him another learner's certificate.

Although shipping in general has been extremely dull for the past two months, one of our inspectors personally visited and supplied material to approximately sixty-five ships during November.

Foolish question. "What radiation do you get with your chopper on 300?" "Did you ever get either?"

GREAT LAKES DIVISION

CLEVELAND

ON and after January 1, 1921, the Great Lakes Division head office will be located at 1597 St. Clair Avenue, Cleveland, Ohio. *SITE*—The second floor of a new two-story brick building on the north side of St. Clair Avenue, between East Fifteenth and Sixteenth Streets. *DIRECTIONS*—To reach new offices from Public Square: Take St. Clair car to East Fifteenth Street. From East Ninth Street Piers: Take East Ninth Street Pier car, and transfer to eastbound St. Clair car, or, walk up East Ninth St. to St. Clair, then east on St. Clair to the building—a ten-minute walk.

The relocation of the Great Lakes divisional offices was negotiated by Mr. G. Harold Porter, General Superintendent of the Marine Division, who recently spent four days in Cleveland.

Our new location embraces both offices and storeroom, a feature not enjoyed by us until this time. The combining of the two units will facilitate outgoing shipments of parts, eliminating the loss of many hours occasioned during the past when necessity demanded the dropping of office work to ship some small item in time to catch a vessel at a Lake Erie port.

This may be a good time to mention for the information of the uninformed that Great Lakes bulk carriers during the season of navigation are habitually termed "race horses." This classification is made after a digest of the remarks passed by Great Lakes freight vessel operators; they, and they alone, knowing the facts as they exist. Whenever a freight vessel remains in port over twenty-four hours at a stretch, the crew as a whole wonder what special holiday it can be; while the vessel managers add a few gray hairs to their ever-growing crop. Innumerable instances are on record where a freight vessel arriving at a Lake Erie port has discharged anywhere from six to twelve thousand tons of iron ore, and departed again for another load inside of six hours. We wonder what our salt water brother operators would say to such speed.

The unloading facilities of the lake port docks not only hinders the ship operator from spending two or three consecutive days on terra-firma, but in the case of repair jobs, of which we are

blessed with our share, these same unloading facilities require the construction force to be on the job both day and night. The sentence, "I'll repair the S. S. Blank's generator the first thing in the morning," is synonymous with a resignation, for on the following morning the S. S. Blank will be fifty or more miles closer to another cargo. Although the season of navigation in the Great Lakes Division covers a period of but eight months, we find a very few "I's" and "wills" in this region, such words and phrases having been supplanted by "I finished that job before breakfast this morning," and "I met her as she came in at midnight last night."

Joe Angsten, who laid up the Byers the early part of the month, spent the holidays with his folks in Wisconsin.

Rean and Sam Mooney, honest-to-goodness brother operators, who completed the season of navigation aboard the Clemens A. Reiss and the M. A. Bradley, respectively, are both at home at Gaylord, Mich., and have reported rabbit hunting to be a keener sport than dodging storms on Lake Superior during the fall.

Paul W. Heasley, who laid up the Eastern States, advises he will seek employment in the Eastern or Gulf division after the holidays.

Guy Harden, who helped to put the Western States in her winter quarters, has been transferred to the Eastern division.

J. E. Spencer and Henry Grossman, who have laid up the Huron and Alpena, respectively, contemplate remaining in Cleveland during the winter months in order to get an early start on the Lakes in 1921.

A. H. Freitag, who successfully laid up the White, was a recent visitor at the Cleveland office. He claims the Great White Way of Calcite makes Broadway look like a Mexican nickel.

Frank Weide has just recently tied up the tug Whitney for the winter, having been assigned to her during the tug's recent operations in Western Superior.

We have every reason in the world to start getting a corner on the rice market, due mostly to the fact that Bill Kunner, who has laid up the Carl D. Bradley, is soon to get married. J. E. Spencer, it is rumored, has the same aspirations.

L. M. Davis, who laid up the Harvey H. Brown at Buffalo, has landed soft pickings in his home town at Coshocton, Ohio, for the winter months. More power to you, Laress.

"High life" Monde, who stowed away the Livingstone for the winter, is contemplating a trip to the Gulf in the very near future.

At this issue the only remaining vessels in commission in the Great Lakes division are twelve car ferries and three passenger vessels running on Lakes Michigan and Erie, and from all reports are getting their fill of weather with a big "W."

PACIFIC DIVISION

SAN FRANCISCO

THE installation work at the San Francisco depot has been keeping up to the top notch all through the month of November and promises to keep right on at the same rate to the first of April with the orders now in sight. The condition is unusual for the reason that almost every other line of business is feeling the slack which has occurred throughout the country.

A few USSB ships have been laid up at Southampton Bay on account of scarcity of cargo but so far none of those controlled by this company have been included. We expect a problem to solve in trying to keep the storage batteries charged in case any are laid up later.

Oil tankers are in great demand and the ship yards are rushing work on this class of vessel. We have contracts to install ten of them by the first of April.

The Amateur Convention held in San Francisco on Nov. 26-27-28 proved a great success and was very well attended. It was called for the purpose of getting all the amateurs of the Pacific Coast together to form a permanent organization for the interests of the amateur. The organization is to be confined strictly to the amateur field and is not to be associated with any commercial body. Its object will be to develop the amateur wireless field and outline ways in which to use their resources to the best advantage in training operators for the Army and Navy in case of war and possibly in preparing them for commercial wireless.

A wireless show was held in connection with the convention at the San Francisco Gymnastic Club Rooms and like the convention was a decided success. All the available space was taken for booths, principally by the manufacturers of apparatus for amateur use, although the Commercial companies were well represented and the Army and Navy contributed a big display of Army and Navy standard apparatus including a compass station, equipped and working. We feel a bit proud of the favorable comment and praise which was drawn by the Radio Corporation exhibit there.

L. P. Acton of the Santa Rita had his second narrow escape last week when the ship was compelled to abandon the Barge W. J. Pirrie off Umatilla Reef. Both vessels were almost on the rocks when the tow line was cut barely in time to save the former. The W. J. Pirrie drifted ashore within a few minutes after the line was cut and went to pieces on the rocks. Only two of the crew of twenty-three escaped with their lives and were found by the Indians after they had wandered for three days along the coast. The twenty-one bodies of the victims were recovered later.

We have the pleasure at last of announcing a marriage in these columns. C. A. Perigrine, Director of the Radio Institute of

America, is the lucky man, and Miss Manila Nattress is the lucky girl. We wish them all the happiness that is theirs to have.

Fred Wiese is the proud father of a baby boy which arrived since our last contribution to these columns. He thinks that it was unkind of us to send him to San Pedro for the Mary Luckenbach installation at this time.

SEATTLE

H. W. Barker, in charge of construction at Seattle, has returned from his vacation. He enjoyed two weeks of perfect weather at his mother's place in the country.

Herbert J. Scott, who relieved Mr. Barker temporarily, is now Assistant Instructor at the Y. M. C. A. Radio school.

Paul Gill arrived here from the East coast on the Yosemite. On account of this vessel needing some repairs, she was laid up and the entire crew transferred to the Eastern Mariner.

Willus Hicks, senior on the Admiral Dewey, took one trip off in order to attend the marriage of his sister. His place was taken by T. A. Kinsey. Mr. Kinsey goes back to his old ship, the City of Seattle.

E. Wolcott relieved F. Carson as first on the Governor.

We recently read that District Manager Palmer, at Portland, claimed to have the champion letter receiving operator. If he receives more than Walter Mansfield, on the Spokane, we can't see where Palmer finds room to put his master copies and accessories!

SAN PEDRO

F. W. Everitt arrived in this port from Scotland, after a voyage on the West Kedron.

Chas. H. Lowell was assigned to the Broad Arrow, relieving L. F. Campbell, who was called home account of illness of his mother.

It is very difficult to gather news at this port, as the Los Angeles papers scoop all the really good news and leave the writer only the crumbs from the waste basket.

If we were a native of Connecticut we might tell you about the electric eel that comes into the inner harbor waters and interferes with the 600 meter wave—but that's a long story, and a slippery one, and we might not get away with it.

In a recent article we dilated, elongated and almost suffocated in trying to describe the beauties of our port, so we cannot dig up past memories on that subject.

We might tell you that Los Angeles is the home of the leading motion picture folks, but you are all fans and have seen them all, even to our own Mary.

We might name the operators who do not report to this office on arrival—but we won't.

We might tell you of all the new business we expect to land in 1921, but that would be giving information to our competitors—so we'll just ask the printer to put a period here.

RADIO CORPORATION OF AMERICA

COMMERCIAL DEPARTMENT

David Sarnoff,
Commercial Manager
G. Harold Porter,
General Superintendent
Marine Division
Thomas M. Stevens,
Assistant General Superintendent
E. E. Bucher,
Commercial Engineer
George W. Hayes
Traveling Representative
John B. Duffy,
Superintendent Eastern Division. 326
Broadway. N. Y.
Arthur A. Isbell,
General Supt., Pacific Div., Insurance
Exchange Building, San Francisco
Lawrence A. Malarin,
Marine Superintendent, San Francisco
George W. Nicholls,
Dist. Supt., 136 Federal St., Boston
James M. Sawyer,
Supt., Maintenance, Repair and In-
spection, 326 Broadway. N. Y.
Lee L. Manley,
Assistant Superintendent
Julius A. Pohl,
Superintendent Gulf Div., 331 Canal-
Commercial Building, New Orleans
Edwin A. Nicholas,
Superintendent Great Lakes Division,
1597 St. Clair Ave. Cleveland

TRAFFIC DEPARTMENT

W. A. Winterbottom,
Traffic Manager
John B. Rostron,
Assistant Traffic Manager
H. Chadwick,
Superintendent, 68 Broad St., N. Y.
C. J. Weaver,
Assistant Supt., 68 Broad St., N. Y.
W. H. Barsby,
Superintendent, Belmar, N. J.
W. E. Wood,
Superintendent, Chatham, Mass.
G. E. Baxter,
Supt., 300 California St., San Francisco
F. M. Roy,
Superintendent, Marshall, Cal.
H. A. Oxenham,
Superintendent, Koko Head, T. H.
W. P. S. Hawk,
Superintendent, Honolulu
ENGINEERING DEPARTMENT
E. F. W. Alexanderson,
Chief Engineer
C. H. Taylor,
Assistant Chief Engineer
COMPTROLLERS DEPARTMENT
C. J. Ross, Secretary and Comptroller
H. A. Sullivan,
Auditor of Disbursements
Alexander Nicol,
Auditor of Receipts

PLANT DEPARTMENT

Alexander E. Reoch, Plant Engineer

DIVISIONS

W. A. Graham, Transmitting Stations	C. W. Latimer, Receiving Stations
W. G. Lush, New Construction	R. T. Rossi, Construction Inspector

ENGINEERS-IN-CHARGE TRANSMITTING STATIONS

T. J. Hayden, New Brunswick	G. L. Usselman, Tuckerton
B. S. Y. Clifton, Marion	W. H. Graff, Bollinas

S. W. Dean, Kahuku, (acting)

DISTRICT MANAGERS

W. P. Kelland, Gay and Pratt Sts., Baltimore
Edwin M. Hartley, 109 South 2nd Street, Philadelphia
L. H. Gilpin, 220 Brewer Street, Norfolk
Watson Sidney, 204 Broughton St., West, Savannah
P. R. Ellsworth, 410 24th Street, Galveston
Alfred Thomas, Jr. Chief Operator, 510 Bonheur Building, Chicago
W. F. McAuliffe, Maritime Building, Seattle
R. S. Palmer, 317 Lumber Exchange Building, Portland
H. L. Bleakney, Southern Pacific Building, San Pedro
G. B. Williamson, Port Arthur
J. E. Broussard, P & O Steamship Co., Key West
R. H. Coffin, Representative, Battle House, Mobile

The Newest Radio Books

The books described below are of particular interest to men whose work is in the wireless field.

Each one of these books will give you new facts, will broaden your knowledge and increase your earning capacity.

1920 YEAR BOOK OF WIRELESS TELEGRAPHY AND TELEPHONY \$3.75

The Thermionic Valve and its Developments in Radio Telegraphy and Telephony.

By J. A. Fleming, M.A., D.Sc.

279 pages
144 diagrams and illustrations Price \$5.00

Wireless Telegraphy and Telephony

First Principles, Present Practice and Testing.

By H. M. Dowsett, M.I.E.E.

331 pages
305 diagrams and illustrations Price \$3.00

Selected Studies in Elementary Physics

A Hand Book for the wireless student and Amateur.

By E. Blake, A.M.I.E.E.

176 pages
43 diagrams and illustrations Price \$2.00

Wireless Transmission of Photographs

By M. J. Martin

Revised and Enlarged Edition.

143 pages
Fully illustrated Price \$2.00

Telephony Without Wires

By Philip R. Coursey, D.Sc., A.M.I.E.E.

414 pages
250 diagrams and illustrations Price \$5.00

Radio Engineering Principles

By Lauer and Brown

Endorsed by Major General George O. Squier.

304 pages.
250 illustrations Price \$3.50

The Oscillation Valve

The Elementary Principles of Its Application to Wireless Telegraphy.

By R. D. Bangay

215 pages.
110 diagrams and illustrations Price \$2.75

Alternating Current Work

An Outline for Students of Wireless Telegraphy.

By A. Shore, A.M.I.E.E.

163 pages
86 diagrams and illustrations Price \$1.75

All Radio Corporation Employees are allowed a discount of 10%

Send All Orders to **WIRELESS PRESS, Inc.,** 330 Broadway NEW YORK