

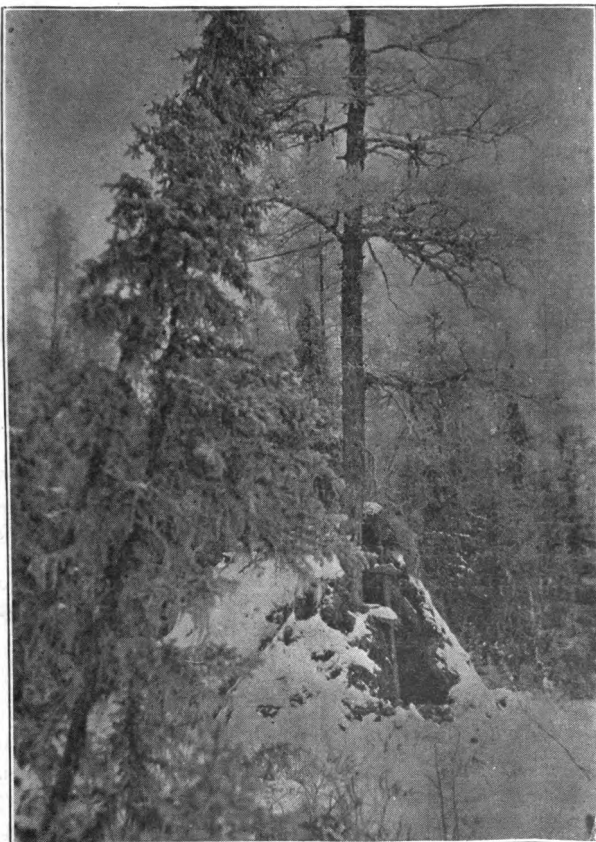
WORLD WIDE WIRELESS
PUBLISHED BY
RADIO CORPORATION
OF AMERICA

FEBRUARY, 1921

VOLUME 2

AT
233 BROADWAY, N. Y.

BY AND FOR
EMPLOYEES



WINTER SCENE IN CANADA

RADIO CORPORATION OF AMERICA

233 BROADWAY

(WOOLWORTH BUILDING)

NEW YORK

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AMATEUR VERSUS COMMERCIAL RADIO

ABSTRACT OF AN ADDRESS DELIVERED BEFORE THE BROOKLYN RADIO CLUB, DECEMBER 22, 1920

By Pierre H. Boucheron

TWELVE years ago, while traveling on one of the New York "L" lines, I gazed for the first time upon one of the few amateur aerials in New York. Alas, my doom was sealed, and the next day I was stricken by the violent sting of the radio "bug."

Back in those "early ages" of amateur radio there was something like five or six stations in New York. Indeed, they were few and far between. Perhaps some of you may have heard of these pioneers. There was Vermilya, who signed "VN"; Cannon, who signed "CC"; Eltz, who signed "GE"; Lemmon, Runyon and the dear old "Dad of Radio," Dr. Hudson, who, by the way, died recently in a very unfortunate way.

Amateur radio of 1907, 1908, was of an entirely different nature than the radio of today. There being so few amateurs in the United States, they were not considered very seriously by the authorities, for neither the Navy nor the commercial companies had enough stations in operation to bother about the use of special non-interfering wave-lengths.

Those were indeed the good old days of radio. The ether was used in a happy-go-lucky fashion, with no thought of tuning or bothering about decrement and the larger amount of power available the better. If one had a thousand dollars or more to spend for a transmitter, very well, it would be a 5-kilowatt "coffin-type" transformer, and the more interference it caused the more notorious became the owner. In other words, the more "etheric noise" he made the more prominent he was in the locality.

I particularly recall a set of wealthy amateurs residing in the upper part of New York, all equipped with powerful transmitters ranging from one-half to 5 kilowatts, and who so controlled the air in the vicinity of New York as to have the few commercial stations completely at their mercy, so to speak.

If John Smith felt that he had not asked, "How is my spark now, old man?" enough times that particular evening, the old United Wireless Station, "N. Y.," simply had to wait until the agony was over before the operator could proceed with the clearing of traffic with the few incoming and outgoing vessels.

THE LURE OF RADIO

The more adventurous spirits, however, used it as a means to an end, for the sea held plenty of excitement and thrills. Secretly, if not openly, it was the desire of most of these pioneer amateur men to become seagoing operators. Rich or poor, they

packed their \$25 solid leather suit cases or their 98-cent papier-mache handbags, as the case might be, and one after the other they trotted down to 42 Broadway and a few days later embarked upon adventurous careers. No license was needed and one only need know the American Morse code to secure a berth on either a first-class passenger ship or an old tramp oil tanker.

They traveled to many ports, particularly those of the West Indies and South American countries, and came back laden with good cigars, bunches of over-ripe bananas, monkeys on strings, mad love affairs with Spanish señoritas and rather violent spells of laziness brought about by the idling of long voyages. Those were certainly the happy days.

Then came the more stringent laws which regulated both the amateur body as well as the commercial operators. A great deal of cramming of radio books was done in order to pass the much dreaded examinations. Our friends in the Brooklyn Navy Yard dismantled ponderous and obsolete radio sets, including the armatures of motor-generators, short-circuited hot wire ammeters, plugged in a few burned-out fuses here and there, criss-crossed connections, inserted a few extra and misleading pieces of apparatus for good measure, and told us to go to it and *make the set work*.

THE TURNING POINT

These may be said to have been the "Middle Ages" of radio; the awakening point, we might say. Amateur as well as commercial radio was being recognized as an important factor in the development of this great country, and that is why our lawmakers saw to it that some of us did not break our necks in attempts to outdo each other. As you all know, amateurs were assigned wave-lengths of 200 meters and the commercial boys were assigned to 600 meters and above. More attention was paid to tuning. The straight coupled sets were junked and the tuning transformer or "jigger" became law. Still there was no great need to worry, for the number of amateur and commercial stations had not reached the great number we have today.

Slowly, though surely, the insidious bite of the radio "bug" began to have its effect. Thousands of boys and young men who previously had had nothing better to do than to spend their evenings at the corner poolroom, became infected with these most prolific germs.

Radio magazines began to appear on the news-stands and were published far and wide, until today there are no less than seven of them in the United States alone, each one of which has a rapidly increasing circulation. These magazines, by the way, have done a great deal to spread the glad news concerning amateur radio.

THE PART PLAYED BY AMATEURS

It is perhaps interesting to know that many of our leading engineers began as amateurs, while the great majority of the commercial operators and commercial men in general, likewise began as amateurs.

A short time ago I had the good fortune to be sent to the great Radio Corporation transmission station at Marion, Mass. The marvelous work that this station is doing is another feat to the great monument of the radio science. I was awed by the sight of the ponderous 200-kilowatt alternators which deliver an antenna current of 425 amperes and which work continuously each twenty-four hours of the day with Nauen and Stavanger. I was equally impressed by the spectacle of the fourteen 395-foot masts which hold the flat top antennae.

I was still further impressed when informed that of the seventeen persons attached to the station, no less than five were formerly amateurs, in fact, one of them was no less a person than one of the boys who used 5 kilowatts of power to make himself heard while in upper New York, back in the happy days of 1908.

Thus you are faced with the importance which government and private radio organizations place upon the beginners and amateurs. The war probably did more than anything else to bring this important fact before the attention of the authorities, as we shall soon see.

Following closely upon the so-called "Middle Ages" of radio came the war. Here, indeed, is where the amateur proved his worth, and all future legislation, whether favorable or unfavorable to the amateur, must fully realize and take into account the potential assistance you are in a position to render during the moments of emergency. The government called upon the radio amateurs to fill the ranks of both the Navy and Army Signal units, and all those who were not too young or who did not have dependents, quickly responded.

As a matter of fact, some of the most important positions were filled by amateurs who had never had either government or commercial radio experience. I have nearly one hundred friends and acquaintances who rose quite high in Army and Navy rank—such as captains and majors in the Army, and junior and senior lieutenants in the Navy.

Even so, there were not enough amateur or professional operators to fill the ranks of a great army and a great navy, so many additional newcomers were trained. I understand that the U. S. Signal Corps alone has trained something like 50,000 men in the theory and operation of the modern radio installation, while the Navy has probably instructed 20,000.

WORLD WIDE WIRELESS

These young men are now back in civilian life and are scattered over all parts of the country. Needless to say, every one or them, in a greater or lesser degree, has experienced the keen fascination and the many thrills known to the radio enthusiast. Incidentally, the greater part of them became amateurs. They set up complete receiving and transmitting sets in all parts of the country and are now keeping in touch with the game, advancing with the art of radio telegraphy and telephony.

OUR RADIO LAWS

We are very fortunate in this country not to be hindered, as are our less fortunate European brothers. We are free to send and receive to our heart's content, providing we obey certain laws and regulations. Our Canadian brothers are somewhat less fortunate, for what can one do in the line of transmission with 50 meters? England and Australia, I understand, are beginning to loosen up with their amateurs, but still their laws are far from favorable when compared to ours. France limits its amateurs to the reception of time signals and meteorological reports only, and one must not copy commercial or government messages, for this is against the law. However, there will need be a great number of radio detectives to censor what an amateur is *receiving*. Holland also permits amateur reception, but no transmission. Germany, on the other hand, does not permit any amateur activity whatever.

So you see, fellow amateurs, we are really fortunate; it is, indeed, the country of the brave and the free, even though our dreadful prohibition laws limit our beer to one-half of one per cent.

THE FUTURE

And now a few words concerning the future of radio amateurs. While in the radio publishing game, I often received letters from amateurs in all walks of life asking just how one could use his amateur knowledge and experience to advantage—that is to say, realizing some commercial value out of it. Unfortunately we cannot be Marconis, DeForests, Alexandersons, Weagants, or Pickards; some of us must of necessity remain radio wall flowers.

In spite of this distressing fact, however, there is no need to despair. There are today thousands of opportunities in the radio field which did not exist five, ten and twelve years ago. This so-called game has become an exact science and there are many sub-divisions of it. In other words, one must specialize in any given branch of it, in order to really be someone.

We have today specialists in radio reception and radio transmission. These are sub-divided into specialists in low-power transmission, short wave and long wave reception; spark, arc and alternator experts, vacuum tube experts, loop antenna experts

and so on. Any one of these subjects holds the possibility of further research and development, and will therefore be the task of our future radio engineers.

There are some who say, "This radio is a great game to play with, but there is no money in it." There is money in it, but you must work for it. There is as much remuneration, if not more, in the commercial radio industry of today than there is in many highly specialized professions. Not only that, but the pay is rising instead of falling.

Just think of it: back in the old days, six years ago, let us say, an operator went to sea for \$25 and \$30 a month; today he is paid \$100 and \$125. Surely the cost of living has not increased five times what it was in those days. Don't forget, by the way, that in addition to the present good pay there is included ample food and living quarters as well.

One does not necessarily have to go to sea. There are plenty of opportunities ashore, be they in construction, inspection, manufacturing and selling, as well as the operating fields of radio.

It would be foolish to say, of course, that every individual amateur should strive to secure a berth in commercial radio. There are too many amateurs and not enough positions to go around. Furthermore, there are many types of amateurs, and the number who find their way into the commercial ranks are very few indeed in comparison. The greater part use radio as a hobby and at the same time it is an excellent mind trainer. There are some, of course, who are in the allied branches, such as the electrical, the telegraph and telephone fields; to these radio is a diversion.

The point I am trying to get at is that if you are really desirous of entering the commercial ranks of radio, there is plenty of room for you, and no doubt you will secure as much success here as in any other branch.

Remember, that although radio is a highly specialized science, there remains many problems to be solved, and as the art advances and it becomes more and more a complex subject, there will be plenty of work to do and plenty of fame to be gained for future radio men.

THE PART PLAYED BY THE VACUUM TUBE

I hold in my hand a miniature, though practical, instrument, which has done more for the advancement and development of radio than any other. It is the vacuum tube, which has rightly been called the modern Aladdin lamp. It is certainly wonderful, for it is capable of more feats than any other given electrical appliance.

Mr. E. F. W. Alexanderson, who developed the high frequency alternator making long distance transmission possible, re-

cently voiced some thoughts in connection with the vacuum tube which are vivid and interesting. "Scientists tell us that electricity is no longer the mysterious power fluid that we have imagined flowing smoothly in our wires. Instead it is composed of miniature planets or comets of, condensed material electricity of definite charge and mass, shooting across a miniature universe inside of a glass bulb, and following orbits that can be calculated as accurately as the orbits of the planets."

Fellow amateurs, this little bulb, which is hardly larger in size than a cigarette, or any one of its mates of possibly larger dimensions, is destined to revolutionize future radio and it will not take very many years either. It will not only benefit and change present systems of commercial radio, but it will prove an excellent stimulus to amateur radio, which is on the way to become even more popular than amateur photography.

As you see the man or woman promenading in the park on Sunday afternoon carrying the inevitable camera case, so will you see the future amateur carrying his little case which will contain sufficient apparatus to communicate by radio over comparatively long distances within the city or country.

I have tried to secure some authentic information concerning the number of amateurs in the United States today. As near as I am able to ascertain there are over 200,000 amateurs of all classes and the number is constantly increasing, due probably to the excellent publicity that is being given to radio not only through the medium of the radio magazines themselves, but to the daily press of the country.

WATCH FUTURE RADIO LEGISLATION

And last but not least, whenever you hear or read of any individual attempt on the part of misinformed gentlemen to seriously curb the activities of American Amateur Radio, rise as one and fight to the last trench against such measures. In this connection your radio magazines and the officers of your associations and clubs will always do their utmost to keep you informed on such propositions, as they may present themselves, and, therefore, give you ample time to vigorously resent it by writing strong protests to your representative at Washington. Remember the unreasonable curbing of amateur radio is un-American, and certainly not symbolic of liberty and freedom.

Keep your ears well glued to your receivers and don't be caught napping. Remember that others are constantly listening in.



THE PROGRESS OF RADIO TELEGRAPHY

By W. M. V. Hoffman, Jr.

(CONCLUDED)

The most promising field for radio telegraphy and one in which its application will revolutionize present methods is that of continent to continent signaling. For this work several high power radio stations constructed by the Radio Corporation of America are now in daily operation. A number of more powerful long distance stations are under construction, including the great New York Central Station at Rocky Point, Long Island.

A definite idea of the ultra-modern character of this radio plant may be gained from the observations of Edward J. Nally, President of the Radio Corporation of America, under whose direction the world wide wireless system has emerged from an idea into a reality. "Everyone at all familiar with wireless," said Mr. Nally, "knows that at Nauen, Germany, and Bordeaux, France, are two of the largest stations in the world. Up to now they have been viewed with admiration; consider, then, the tremendous advance presented in this latest step; the New York Radio Central Station in the aggregate, will be five times more powerful than either of these!"

He explained that there will be five complete transmitters, each one a duplex unit with a corresponding receiving station located nearby. All five transmitters and the five receivers will operate simultaneously and will transmit and receive messages over thousands of miles continuously during day and night.

"New York will be the direct focal point of the world's intelligence in an entirely new sense under this communication scheme," he continued. "As soon as the station is completed immediate message service will be established with France and Germany to supplement the existing commercial circuits; ultimately, radio from this station will connect up Buenos Aires and other points in South America, and ether-wave messages will be flashing to and from Poland, Sweden, Denmark and other European countries. Like the ripples that race in circles over a pond when a stone is dropped in the water, the electromagnetic waves from this station will soon encompass practically the whole of the civilized globe. It is a plant that dwarfs all existing wireless stations into insignificance; a single unit will have power and range the equivalent of the largest wireless stations in the world today."

The form of aerial construction, too, is wholly a new departure. From the central power house six spans of aerial wire will radiate out in a star pattern to a distance of more than one mile from the center. The wires of this huge antenna will be supported on a self-supporting steel tower, each 400 feet in height, with the wires suspended at the top between 150-foot across arms. Each

of the six antennae will have twelve towers, forming, so to speak, the spokes of a giant wheel, fashioned out of seventy-two miniature replicas of the famous Eiffel Tower in France. Five of these antennae spokes will be used for regular service, while the sixth is reserved for emergency operation.

Far more impressive than physical appearance, however, will be the things the eye cannot encompass. Appreciate, that in the wires forming each spoke of the gigantic heel there will be generated a power equal to the greatest of present day trans-oceanic wireless stations; then comprehend, if you can, the fact that all five of these powers may, if desired, be combined into one, for signaling. A telegraphic signal created out of such tremendous electromagnetic energy could encircle the entire globe!

Mr. Nally emphasized another forward step in engineering which will be incorporated in the super station. "We will utilize what is termed a multiple tuned antenna, which," he explained, "materially reduces the wasteful electrical resistance of the long, low, flat top aerials formerly used. A great saving in power is thus effected; in fact, for the same power input formerly used for a single station, six times the effectiveness at a distance is obtained. In other words, we obtain with this antenna the same effect at a distance with 200 kilowatts input as would be obtained from the old type of antenna with 1200 kilowatts input! This new type of antenna is the equivalent of six independent radiators, all operating in unison at the same wave length, and for the complete station with its five antennae units the power required will be less than 20% of that formerly necessary. The project, however, contemplates additional possibilities. To illustrate: We may, in many cases, utilize but one half of a single spoke of the antenna system for communication service to a certain point. On this basis, the Long Island Station will ultimately permit simultaneous transmissions to a maximum number of ten points in the world, thus doubling the communication facilities originally planned."

The great problem of trans-oceanic radio signaling has been the interference of atmospheric electricity, which often delayed communication for several hours. An important contribution towards the reduction of this interference was made by R. A. Weagant. He devised a method by which this interference is annulled to such a degree that wireless has become a very active competitor to existing cables. The net result will be a cheaper and more accurate service, for it must be remembered that the initial expense of a radio installation is less than that of a cable. Beyond this the radio system does not possess the inherent speed-limiting qualities of a wire or cable circuit.

It is not possible in the limited space of this article to give an adequate idea of the progress in radio design and application. It is sufficient to say that each month brings forth new discoveries of the utmost practical value.

WORLD'S RECORD FOR GERHARDT



THE world's record for fast reception of radio signals was broken by A. E. Gerhardt at the wireless show of the Pacific Radio Convention on November 28, 1920. Gerhardt copied forty-nine and a quarter words per minute for four consecutive minutes, with but five errors. A Wheatstone transmitter was used for the contest and messages of ten words in length were sent.

Gerhardt also won first place in copying ten letter code messages at a speed of 33 words per minute.

Major J. F. Dillon, local United States radio inspector, was the judge of the contest. The prize awarded to Mr. Gerhardt was a silvered electric shaving mirror.

Gerhardt is employed by the Radio Corporation of America at the high power station, Marshall, Calif.

He succeeded in winning second prize at the speed contest of the recent exposition in San Francisco, but he is now the uncrowned king of the radio code.—*Pacific Radio News*.

ABSTRACTING OUR SHIP'S BUSINESS

DIRECTION BEARING MESSAGES

ALL "bearing" messages received from "compass bearing" stations are to be abstracted on the received side of the abstract. The charges for such messages are to be entered in column 11, and marked "due from S. S. Co.," or, if the captain has paid the operator in cash for such messages, the charge will be shown in column 11, and marked "Cash received," while the credit should be shown in column 17, as "due the Gov't," which furnishes the bearing.

At the present time the British, French and Japanese governments make a uniform charge of \$1.20 for such messages, but bearings obtained through Canadian stations are provided free of charge.

REPLY PAID TRAFFIC

The article appearing in the next issue will cover the subject of the abstracting of "R.P." traffic, both transmitted and received.

RADIO PROVIDENT CLUB—ANNUAL REPORT
1 9 2 0

N. Y. December 23rd, 1920.

Total number of members.....	78
Less withdrawals.....	28
Profit sharing members.....	50
Received from members during the fiscal year.....	\$4,469.76
Less amount withdrawn by members.....	1,137.60
Net amount received from members.....	\$3,332.16
Add profit for the year.....	249.57
Total amount to be distributed among 50 members.....	\$3,581.73
Profit on candy.....	\$171.86
Interest earned.....	69.12
Discounts.....	13.49
	\$254.47
Less stationery expense.....	4.90
BALANCE.....	\$249.57

COMPARATIVE STATEMENT

	1914	1915	1916	1917	1918	1919	1920
Total deposits	\$4,760.66	\$5,305.50	\$7,128.50	\$8,122.11	\$12,588.32	\$11,397.09	\$4,469.76
Total withdrawals	2,032.16	2,055.50	2,403.50	1,460.06	5,666.96	4,377.40	1,137.60
Amt. distributed to remaining members	2,728.50	3,250.00	4,725.00	6,663.05	6,021.36	7,019.69	3,332.16
Total profits	104.86	143.00	177.66	349.78	207.34	201.84	249.57
Dividend per share	.98	1.10	.94	1.34	.81	.69	
Dividend per dollar per month							.01185
Percent of Dividend	3.92%	4.4	3.76	5.36	3.24	2.76	14.22

Respectfully submitted,

G. W. HAYES, *President*

A. NICOL, *Vice-President*

L. MACCONNACH } *Trustees*
M. H. PAYNE }

RADIO PROVIDENT CLUB ACTIVITIES

MEMBERS for the year 1920 were so satisfied with the benefits derived during the year, that exceptional activity is expected for the present year.

The Radio Provident Club is primarily a savings institution controlled and operated by the employees of the Radio Corporation and is for their benefit only. The Membership Committee is now enrolling members for the present year. All that is necessary to become a full fledged member is to deposit various sums of any amount at frequent intervals. This money is placed in a bank and is of course subject to a yearly interest rate. During the year various articles are bought, mainly cigars, cigarettes and

candies, and these are sold, with a small margin of profit, to employees of the Radio Corporation at the main office as well as at other nearby departments. Even with this small margin of profit, however, the purchase price is usually below that of the regular retail prices met elsewhere.

At the end of the year whatever profits have been made by the Club are distributed to members in suitable proportion, depending upon the amount and length of time deposits have been held. In connection with this, it is very important that once members have joined, they endeavor to remain in the club for the full term of the year so as to really profit when the club disbands.

Concerning the desirability of membership in this profitable organization, there was a comparatively large interest rate paid during the year 1920, and in addition to this, members were able to purchase many items at a most economical price. The club usually begins operations about January 6th and disbands December 15th of each year.

Cigar and cigarette salesmen for the present year are Messrs. R. C. Hock and Wm. Eberle, of the general office. Visit these gentlemen occasionally and discuss with them your tobacco needs. Other items will be on sale very shortly.

Mr. Marion H. Payne, president of the club, or Mr. Lewis MacConnach, treasurer, will gladly furnish prospective members with full information and will receive deposits at frequent intervals. The business address of the Radio Provident Club is 233 Broadway, New York City, care of Radio Corporation of America. Do not let the month slide by without investigating.

New York, December 24, 1920

To the Members of the Radio Provident Club:

The statement of the activities of your club is self-explanatory. I am gratified with the success and I wish to take this opportunity to thank all of you for your co-operation, especially the Trustees and the Candy division, for their untiring efforts to make this year's work successful.

I hope that the Club will be continued and that the coming year will be even more successful.

The following-named officers have been elected for ensuing year: President, Marion H. Payne; Vice-President, Gustave M. Heisel; Treasurer, Lewis MacConnach.

RADIO PROVIDENT CLUB
By **GEORGE W. HAYES**, President

RADIO INSTITUTE OF AMERICA

DURING December, the Radio Institute of America graduated fourteen men with first grade commercial licenses, and although shipping is very slow, they are gradually disappearing over the horizon. Howell overhauled the entire equipment during the holiday season. That is, he had the students do it. Even Miss M. Powers, of the evening class had to crawl inside a motor generator. Nobody saw the feat accomplished, but Miss Powers' appearance seemed to leave no question in our minds.

One of our students wanted to know if building the New York Central Radio towers, clockwise, had anything to do with the time it takes to send a message. Guess he was thinking of a sundial.

DIRECTOR'S NOTES

Last month's article credited Howell with teaching eight different technical classes, but did not explain that only four of the eight have lessons every day and the four are again divided into afternoon and evening sessions, two classes for each period. Each class has about an hour technical instruction, so that Howell puts in about four hours per day. In fact, he has so much time to himself that I have elected him to the honorary post of office boy and chief stamp lickler in addition to his other duties.

President Nally sailed for Europe on the *Imperator*, January 20th, on a business trip.

AN APPALLING EXPERIENCE

WHEN the S. S. *Sudbury* was about 200 miles off San Pedro, at 7.45 P. M. December 7th, the ship's bell sounded an alarm of fire, calling all hands on deck. Smoke was pouring out of bunker hatch, where general cargo was stored, mostly paint, perfumeries, pianos and chemicals in general. A heavy northerly swell was rolling and a strong north wind gave draft to the fire. Smoke gradually oozed up from hatch below, through seams in bulkhead into radio cabin. One of the sailors helped me remove tool box and other necessary things and we packed moistened burlap along the bulkhead to keep down the smoke. Everything on deck went with a snap, and discipline prevailed. Holes were cut in hatch just large enough to fit fire nozzles, and several streams were played on the fire. The manholes opening into the burning hold were opened and water poured in from that direction. The smoke was so dense the men could not stand it for more than two or three minutes, when they had to lean far over the side for fresh air. Smoke poured down the fire room ventilators, making working conditions hard for the firemen, but still

the engines were kept going. About midnight a plate buckled in the fireroom. The burning hold was not our only worry, for if the fire should get through to fuel oil tanks, or spread forward where we had a deckload of formaldehyde, it would have been good-night. At this time I sent out SOS, giving our position and condition, stating we were heading for San Pedro, and did not then require assistance. Next morning the fire was still burning and not under control, the ship had a heavy list to port, the pumps were working badly and our speed was but $4\frac{1}{2}$ knots. Steam was being used to fight fire, with but little prospect of getting it under control. At 4 P. M. it was decided to make for San Diego. Through U. S. S. *Brooklyn*, we radioed that we would be at the sea buoy at 7.30 P. M. and requested pilot and fireboat to meet us there, which they did, and Point Loma sure was one welcome sight. We docked at 10 P. M. The fireboat, three chemicals and one steam fire engine worked on us until 8 A. M. before the fire was extinguished. Some fire!

Fred C. Dickley, Operator.

SAVED BY RADIO

By William L. Friend, Jr.

ON December 16, 1920, at 4.15 P. M., about thirty miles southeast of Diamond Shoals Light Vessel, on board the *W. M. Burton*, I picked up an SOS from the U. S. S. *Mahanna*, which was broadcasting her position with the information that she would not last over night. I immediately notified the captain, and, after having been directed to inform the *Mahanna* that we were coming to her assistance, called Cape Hatteras, asking him to stop all stations sending in that vicinity. I then got in communication with the *Mahanna*. It was blowing a strong northwest gale and a high sea was running. The *Mahanna* was drifting fast and we had some difficulty in locating her; however, by means of bearings obtained by the *Mahanna* on our searchlight and radioed to us, we were able to reach her about 8.30 P. M. Then began a series of courageous attempts to get a line to her, under the most difficult and disheartening conditions, but our efforts were fruitless; upon information from the *Mahanna* that she was making just enough steam to pump her water, we hove to and awaited daylight.

The following morning found King Neptune's pugnacity completely aroused; the wind had increased to hurricane intensity, and the sea was a roaring, seething mass of turbulent mountains and valleys. It seemed as though there was a conspiracy of the elements against us. Trial upon trial was made to get a line to the *Mahanna*; persistent, strenuous and hazardous were our attempts, but of no avail; we were beaten back with definance.

It was then decided to heave to and stand by until the weather had moderated.

On the 18th the fury of the rebellious elements had slightly subsided, and by careful and masterful maneuvering we succeeded in getting a line to the *Mahanna*, and on the 19th at 10 P. M. safely anchored her off Cape Henry.

An interesting and very enjoyable feature of the rescue was the radio telephone equipment on board the *Mahanna*. Immediately after our lines had been straightened out, Ray Couch, radio operator on the *Mahanna*, called and asked me to tune in for his 'phone. Of course, the rest is between Couch and myself.

The following is a copy of a message sent to Captain W. Muller, of the S. S. *W. M. Burton*, after the *Mahanna* had been safely anchored:

"U. S. S. *Mahanna*,
December 19, 1920.

"My Dear Captain:

"I want to express the many thanks of myself, officers and crew of the U. S. S. *Mahanna* to yourself, officers and crew for standing by us when in need and towing us in.

"I trust that I may some day have the chance to do you a favor, but trust it will not be of the same nature you did for me.

"I again thank you all and we wish you all a Merry Christmas and a Happy New Year.

"Very sincerely,

"(Signed) *Emory F. Hosmer*,

"Lieutenant U. S. Navy."

MEXICAN BORDER PATROL

In order to reduce the danger of American Air Service pilots accidentally flying over Mexican territory or becoming lost while on border patrol duty, the commander of the 91st Aero Squadron stationed temporarily at Ream Field, Imperial Beach, Cal., has had every plane of the squadron equipped with a radio set with a wave length of 377 metres, which is the best wave length to dodge interference. All pilots are required to check their position every five minutes.

As a further precaution the radio officer of the 91st Squadron has erected at Ream Field a radio compass station by which readings are taken while planes are sending in their position reports. As the course is almost straight east from Ream Field the radio officer can tell almost instantly whether a given plane is holding to its proper air line.

Should a pilot become confused, lose or mistake his position and turn south, the radio compass would immediately show that the plane was over Mexican territory.



MARION

THE OSCILLATING WHISTLE

A Shift Engineer, a Dynamo Tender and a Rigger were over in New Bedford the other night, and in the course of the evening, walked into a toy store. They had just passed a counter on which there were some toy whistles. The Shift Engineer and the Dynamo Tender both worked on the same shift, and while on shift it was at times necessary for the Shift Engineer to call the Dynamo Tender's attention to something. In order to make himself heard above the noise of the machinery, it was necessary to whistle. Now this particular Shift Engineer did not know how to whistle, and he therefore had great difficulty in getting the Dynamo Tender.

Upon passing the whistle counter the second time, on their way out of the store, the Dynamo Tender suggested that the Shift Engineer buy one of the whistles and use it while on shift. This, the Shift Engineer thought, was a good idea, so he bought one. Upon second consideration the Dynamo Tender thought it would be a good idea to try out the whistle before purchasing

same, to make sure that it "blew" loud enough. This the Shift Engineer did, but not without the disapproval of the Dynamo Tender, who stated the whistle wasn't loud enough. This is where the rigger comes in with a very amusing and somewhat facetious suggestion. This rigger, by the way, had been taking a correspondence school course in electricity.

"Vy don't you py two of dem dere vistles and gonnec dem in series?" he asks with a grin from ear to ear. "But don't you know that if we did that, it would take twice as much power to blow them?" chimed in the Dynamo Tender. "Well," said the Shift Engineer, "who in blazes is going to blow these whistles in series, anyway?" "I'll have all I can do to blow one of them." "Vell," answered the rigger, "I tink dey ought to york all right if youse could get de leedle peas vot iss inside der vistle, to os-gillade in de sinkross—de sigrossnis—singossnism—say, vot der hell do youse cali it ven two tings move togedder but are nod togedder?" "Why," laughed the Shift Engineer, "you are thinking of the word 'synchronism'." "Ah, yes!" said the enlightened rigger, "now I know de vord, 'rinschsonissm,' vell, dats vot youse haf got to do vit der leedle peas."

(The writer of this little story once wrote a humorous sketch on the Poulsen arc, which was supposed to have been written by one Mr. George Clark. This was some years ago, when Mr. Clark was connected with the Bureau of Standards. The writer was then in the Navy—a place where Mr. Clark is quite well known in radio circles.

Taking full cognizance of Mr. Clark's engineering ability, plus his abounding wit and good humor, the writer challenges him to suggest in the next issue of this magazine, an efficient method of obtaining the result suggested by the rigger.)

OVERHEARD AT MARION

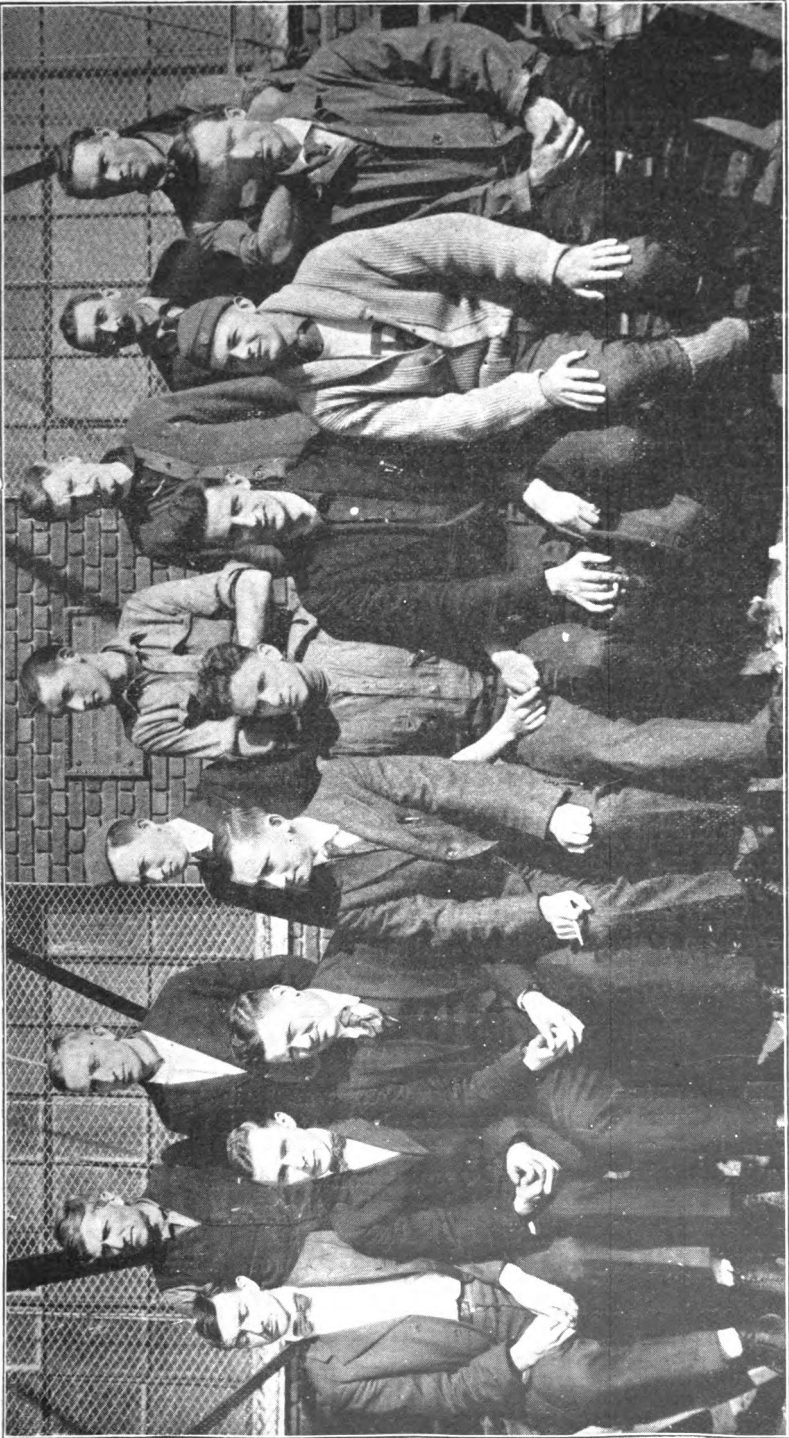
WIGGLE—I understand this here magnetic amplifier works best when well saturated.

WOBBLE—Ah, yes! I believe it is quite human in this respect.

NEW BRUNSWICK

HERE we are again, as usual, plugging away endeavoring to get number one alternator back in commission, rebuilding the antenna, installing sleet melting apparatus and trying to remove the bumps from our line and relay circuits.

The research department now has a branch at N. B., and we are having a fine time taking oscillograms of the various circuits as devised by the operating engineer, in order to reduce the time constants of these circuits; since we now have a new authority



NEW BRUNSWICK STAFF

on the characteristics of these circuits do not be surprised if our next month's contribution tells you that we have had the pleasure of listening to a paper delivered on this subject at the station educational center.

Professor Finch and Mr. Hansell have agreed to continue to lead in the discussion as before the holidays. Since much work has been accomplished since our last meeting on December 20th, we expect that the rest that these gentlemen have had will find them well prepared to go ahead on the development of the alter-nator.

Mr. Bollinger has taken the big jump in three ways: one, across the continent; two, charge of a station, and three, well, ask the young lady, she knows. The Engineer-in-Charge and staff at this station wish you every success and sincerely hope that the State of California will appeal to you as it has to so many, the land of love and roses.

What's happened to our Mr. Rossi? Guess they must have him tied up at Tuckertown. You know he will not stay tied very long, for his specialty is to remain at one place only a couple of hours.

Many, many thanks to Mr. Nally, we are now supplied with a regular technical library, everything from alpha to omega in the radio line. The staff at this station will lose no time in transferring this knowledge from these books to their apperceptive mass.

We regret very much that we were unable to take advantage of Belmar's kind invitation to attend their New Year's party. Wait until the next time; also we would be glad to have some of the men and ladies from B. E. attend our next function; we'll let you know.

Well, keep your eye and ear open for the old W. I. I. sigs; there's no stops. We have had only six hours shutdown in the last month and everybody's happy.

BELMAR

THE entrance of the New Year was fittingly celebrated at Belmar by a masquerade dance, to which everybody had been eagerly looking forward for some weeks. Nothing was lacking in the way of preparations, and much time and energy were spent in suitably decorating the mess quarters.

Owing to the late arrival of the orchestra, dancing did not commence until nearly ten o'clock, except for a few enthusiastic couples who could not control their feet and who considered the victrola plenty good enough as a temporary measure. With the arrival of the orchestra, however, the real fun began and waxed fast and furious. Many of the costumes showed decided origi-

nality on the part of the masqueraders, and notwithstanding the fact that a large proportion of those present were intimately acquainted with each other, recognition was by no means a simple matter. Many out-of-town visitors favored us with their presence and added just the necessary spice of big-town stuff which was needed to make the gathering thoroughly representative. We wish that we might dwell at some length on the many striking not to say daring, costumes which floated around through the mazes of the dance; but suffice it to say that while some of them made the girls look shorter, the men looked longer. The judge's lot, had there been one, would have called for an unusual display of tact and judgment in deciding which was the best costume, but we were fortunately able to avoid this by dispensing with the prizes.

When the witching hour of midnight tolled and the new year began, it was greeted in the good old-fashioned way with every conceivable kind of noise that modern invention permits, and then a few. Gaily colored streamers were unfurled and confetti showered down upon the unheeding dancers, until the scene presented a kaleidoscopic aspect of beauty and color.

Refreshments of all kinds were served at intervals, including a hot-dog supper, and the scene was reminiscent of carnival time at Nice—beg pardon, we mean Coney Island.

The orchestra proved to be as untiring as the dancers, and the hours sped quickly away with scarce an interval for rest. The new year was well advanced before the musicians decided they had had enough and we think that everybody was sorry to see them go, in spite of the strenuous exercise that had been indulged in for several hours.

From the conversation that floated around for the next two or three days, we gathered that the affair had not only been a big success, but that it far outshone anything of the kind previously attempted, and preparations will shortly be begun for another get-together party which will be announced soon.

We extend a hearty welcome to Messrs. L. C. Woodruff and W. Y. Fyfe, who have joined our community during the past month.

EASTPORT

HARK ye who listened before and hear ye what Eastport hath now to say!

The Inn is most deserted now—the G. E. gang having gone to Riverhead to live. McDonald and Leuteritz still remain and Chief Weagant comes down now and then to keep them from getting lonesome. The Chief says the duck dinners are

better than ever, while Mac and Hugo say country sausage for breakfast is worth getting up for. Yea bo, we say so too.

Mac has stored the Maxwell for the winter—he being afraid of losing it in the snow that we hoped would be here by Christmas. It is the same old bus—of course a little bit older than when you heard of it before. However, Mac claims it runs better than ever, but we doubt it.

We had a bum hunch on Leuteritz when we wrote up the last installment. He still takes the 3.44 Saturday afternoons, but as yet the Brooklyn scream has been silent. We have been doing the detective stunt and are now in a position to say he ain't got no girl, but goes to see his grandma instead.

The Chief has been up to his old tricks on the late hours stunt, but so far he has not been able to rope in the G. E. gang for a second session.

Ole Olesen is still plying between a certain bungalow in Riverhead and the station. His driving record is improving—he has only been in the ditch three times since the last writing, and he has run out of gas only once. You're improving, old man!

Of Abe Kellog and Chet Rice we have seen nix for several months. Just who scared 'em away we don't know, but we have a sneaking feeling that Abe, Chet and Beverage had a row over Mary, and Bev, being the biggest, won. Yep, Bev is here all OK, but the less we say about him and Mary the safer we are. You see, he is bigger than we and he doesn't yet see the joke in the last write-up. He's a busy man—especially when Molton is away, Molton's official job being to keep Greenman out of mischief. Bev says he can't do it and eliminate X's at the same time. That's all right, Harold, we know how it is.

Xerxes Molton is still on deck, tho' his frequent trips to N. Y. C. lead us to believe that he, too, has given up trying to win Mary's favor and is now looking 'em over in the big city. Are we right, Xerxes?

We ask ye of the Tuckerton tribe, how is our boy, Carter? Is he living up to his rep? If he is, our advice is for ye who have girls to beware—or it will soon be necessary to say who *had* girls!

Greenman is ever present. We are glad to be able to report that he has at last succeeded in doing *something big*. A branch of Ringling Bros. circus came to Riverhead and Greenman washed the elephant three times in one day. Besides this he has done nothing noteworthy except to use the Radio gang's *new* flivver for a stump-puller. We tell the world that the stump is still there with the remains of most of the flivver's trimmings.

Both gangs have been digging in for the winter. The Radio boys tar-papered their abode and now claim to be snug as a bug

in a rug. Coal and wood they have in plenty and as long as the snow is a minus quantity they can use the flivver to get back and forth—but after the snow comes, of boy! walking is sure good exercise! Bev is adding twenty feet to his palace. He expects to eliminate the expense account trouble by sleeping in the new addition and cooking on the stove in the present palace. Yes, Greenman agrees to wash the dishes.

The latest stunt is to put the radio on land lines and telegraph it around to the receiving stations and through the transmitting stations back to MUU and LCM. How was it, Chatham, you heard it?

Of signals we have great gobs and static is a thing of the past—if you don't believe it, come out and listen.

NEW YORK

THE Broad Street correspondent has recently been working such long hours, due to the ever-increasing traffic, that his contributions to the World Wide Wireless have necessarily been omitted, and there is little time to catch the current issue.

We just wish to say that with the British, Norwegian, German and new French circuits all now centered in "64," and all breaking new records every few days, we now have a real international telegraph office. The poor counter men need to speak three or four languages and the service clerks are becoming expert with their French. Some of the men have no time for lunch reliefs and the old game of eating and receiving simultaneously is again the vogue.

The delivery department has now some additional help and the stuff is moving out in great time. The messengers are wearing their new winter overcoats and there's nothing finer on the street.

The three New York branch offices, "WB" (Woolworth Building), "BR" (Broadway and 22d Street) and "FA" (Fifth Avenue and 42d Street) are all in full swing, each connected by wire, with its own staff of messengers. They are all doing well but our first experimenter ("WB") is still in the lead. Bill Cockett, who manages "BR," says his office will be on top next month. We hope so, but have a feeling that Manager Aymong at "FA" will get there first.

We are going to control Tuckerton direct from Broad Street January 17th, and then the French circuit will come into its own. Poor old New Brunswick has been pressed into service with France temporarily, and on a pinch we have even used it with Germany and Norway, and always with good results.

The boys experimenting down at Riverhead have been pulling

off some great stunts lately. First they called up and gave us Muu on the sounder, then Poz. We switched Poz up to Chat-ham and Muu down to Belmar and they both sat up and took a lot of notice. Oh! there'll be great doings at Broad Street very soon. We'll keep you posted.

Extensive alterations are in progress which will greatly improve the receiving and delivery departments.

We found this poem near one of the Belmar duplexes. We don't know who is to blame for it, but strongly suspect Reggie Mason.

THE MAN WHO STICKS

The man who sticks has his lesson learned;
Success doesn't come by chance—it's earned
By pounding away, for good, hard knocks
Will make stepping stones of stumbling blocks.

He knows in his heart that he cannot fail;
That no ill-fortune can make him quail
While his will is strong and his courage high,
For he's always good for another try.

He doesn't expect by a single stride
To jump to the front; he is satisfied
To do every day his level best
And let the future take care of the rest.

He doesn't believe he's held down by the boss
It's work and not favor that "gets across,"
So his motto is this: "What another man
Has been able to handle, I surely can."

For the man who sticks has the sense to see
He can make himself what he wants to be,
If he'll off with his coat and pitch right in
Why the man who sticks can't help but win.

OPERATING ENGINEERS' NOTES

NEW BRUNSWICK

J. L. Bollinger, assistant engineer, has been appointed Engineer-in-Charge of the Bolinas Station. Mr. Bollinger sailed from New York on January 8th to take up his new duties. He was formerly an engineer on the staff of the Radio Engineering Department of the General Electric Company.

Shift Engineer King replaces L. E. Chassoul, who has left our service.

Dynamo Tender Cavargna has been appointed to fill the vacancy caused by the dismissal of W. H. Clark.

A. Smalley, formerly of the construction forces, has been appointed chief rigger at New Brunswick.

MARION

Dynamo Tender A. C. White has been assigned to this station, replacing S. Curtis, resigned.

BOLINAS

J. L. Bollinger has been appointed Engineer-in-Charge, filling the vacancy caused by the transfer of W. H. Graff to Kahuku.

Shift Engineer Lemert has resigned and this vacancy has been filled by the promotion of Dynamo Tender Havel.

Dynamo Tender Lander appointed to fill vacancy caused by promotion of F. Havel.

THE CRADLE

Born, at New York, January 9, to Mr. and Mrs. David Sarnoff, a son, Edward, 8 pounds.

THE STAFF DINNER

THE first annual staff dinner of the Traffic Department took place January 22, in the Egyptian room at Murray's on Forty-second Street. Covers were laid for 48, and the festivities were followed by a theatre party at the Palace. A letter of regret was read from President Nally, who was en route for England, and to which a wireless reply was sent on board the *Imperator*. Interesting addresses were made by Traffic Manager Winterbottom and Commercial Manager Sarnoff, and also by the chairman, Superintendent Chadwick. The affair was a great success.

HEAD OFFICE NOTES

President Nally sailed for Europe on the *Imperator*, January 20th, on a business trip.

The executive offices are being enlarged by the taking of additional space on the eighteenth floor of the Woolworth Building.

The Plant Department has been merged with the Engineering Department. Mr. Alexander E. Reoch, plant engineer, becomes assistant chief engineer.

Colonel Curtis H. Nance, of the Commercial Department, was married December 20th to Miss Jenny M. Sorenson, at the Church of the Transfiguration, New York.

Additional space has been rented at 326 Broadway, New York, to provide for growth of the M. R. and I. and Research departments.

Mr. William V. Moore, of the Chatham, Mass., high power

station, had the misfortune to break his wrist recently while cranking an automobile.

Mr. F. D. Heiser has been appointed assistant superintendent at the high power station at Chatham, Mass.

This company's office at Savannah has been removed to 14 West Bryan Street.

Miss Thalia N. Brown, secretary to the president, returned from Bermuda recently per S. S. *Fort Victoria*.

EASTERN DIVISION

THE majority of our operators are now supplied with Service Record books. These books are proving their worth beyond our expectations. Aside from giving the operators a permanent record of their past assignments, as well as furnishing an excellent identification book, we have found two additional advantages that this book has brought about.

During the past month one of our operators, while signing on a vessel, was accused of false returns on his income tax and notified to present himself at the Internal Revenue Office in the Custom House. A notation in his book, showing that he was on sick leave for a period covering almost two months, saved him from any inconvenience. The Government told him that the book was recognized as an official record of his movements, and that his record, as written within, was proof that he had not made the false returns as charged.

In obtaining Seamen's Identification Certificates, the operators in the past have had to produce their birth certificates. Four times during the past month a Service Record book was taken as proof of their American birth at the local Passport Office.

After the completion of installation of a fire alarm system throughout the offices at 326 Broadway, Mr. Sawyer, superintendent of the M. R. I. Division, called the forces of the various offices and store-rooms to the Radio Institute class-room, where he delivered an excellent talk and instructions in the event of fire. It was noted that there were exactly 50 people present, 14 of whom were girls, and it is understood that not all the employees of the floor were present. One of the absentees was Clair A. Weaver, our popular telephone operator, who could not leave her post.

Quite a few of our operators know P. W. Smith, who has been chief engineer on several coastwise vessels, one of which is the *Momus*, for a number of years, and all who know him speak his praises. There are many others who have heard of this popular chief and all will be interested in the news of his marriage, which occurred in New York on January 6th, to Miss Lillian Davin. His friends will be glad to know that to find a prettier or more pleasant girl would be extremely difficult, if possible.

We note in the recent notes from Norfolk that Miss O'Neill recently paid a visit to the Head Office, and feel extremely regretful that she slighted us at 326 Broadway. Having heard so much of this dainty little girl, we have always felt anxious to meet her.

Harry Schneider, who has been on the unassigned list for some time, sailed on the West Humhaw for South African and European ports.

Erwin W. Vogel is now on the Isthmian Line steamer Steelmaker. It is rumored that Mr. Vogel intends to be married upon his return from this trip.

Carl J. Koegel sailed, on January 12th, on the Bessemer for Texan and Mexican ports. Mr. Koegel is planning a trans-continental auto trip on which he will start with his brother in the spring and on which he will use a new type of automobungalow.

Reid S. Shipley and James Donaldson rejoined the Philadelphia on January 12th, after that vessel had been laid up for two weeks to repair the damage done by fire at sea on her last trip.

Frank F. Reb returned from Far East ports on the Eagle and is now on the steam yacht Intrepid, owned by Mr. Kilmer. It is expected that Mr. Reb will spend his winter in Florida.

Harry Kweit joined the W. C. Teagle on January 11th, succeeding Robert Kriesinger, who found it necessary to go on leave of absence owing to necessary dental work.

Edmund O'Connor, one of the heroes of the late war, and who recently had to leave a ship to return to a hospital as a result of his wounds, has recuperated and sailed on the Lake Fondulac.

Abe I. Yuter, whose wireless experience dates about 8 years back, and who resigned from our service last year to enter business, has returned and is now on the Poloma. This is a highly desirable run, it being to Cuba.

Richard I. Warren of Calumet, Mich., and Michael P. Shannon of Bayonne, N. J., are the two latest entries into our service. They were operators on the Belle Haven, the operation of which was changed to the Radio Corporation, and they were permitted to remain attached to that vessel after their official entry into our ranks.

The only girl operator in this division arrived in New York during the past week, but her stay was so short she found it necessary to forward her abstracts and the \$4.49 covering them to Mr. Jackson through an inspector. Mr. Jackson felt blue all day, as did also other members of the staff, because she did not hand in her reports in person.

Adolph J. Leszinske joined the Centaurus on December 7th, and is on his way overseas.

Paul G. Bergin, one of the most popular operators in this division and brother of Mr. Matthew L. Bergin, director of the

Radio Institute, took a trip off as junior on the City of St. Louis to take a pleasure trip to Washington. The fact that he got married to a very handsome little Brooklyn girl, who accompanied him on his trip to Washington, should also be mentioned. Mr. Bergin is now back on the City of St. Louis with George Kavanagh.

David E. Irwin, a former Great Lakes operator, is now on the Radiant.

Irving Ellingham is on Mr. Vincent Astor's steam yacht Cristina.

William J. Meekin sailed on the Grace Line Steamer Mineola.

Herbert L. Crandall, who was recently transferred from the Gulf division, is now on the Lake Festina, in place of Charles G. Duffy.

Harvey H. Long, who has been a long time in our service, sailed on the Antietam.

Michael D. Martino sailed, on December 31st, on the Bensalem.

Addison E. Eldridge left for a trip to Cuba, on the last day of the old year, on the Firmore.

Edward W. Rogers sailed on the Kescuicke.

This office was shocked to hear of the death at sea of a former operator, James A. Moore, which happened on the El Valle, on New Year's Day. Mr. Moore was well known among the operators, he having served for some time as Secretary of the Association, and was well liked among them, as well as those who knew him in this office.

David Grossett is now on the Mundelta.

Earl D. Bryant is cruising in Southern waters on Mr. Vanderbilt's Steam Yacht Eagle.

Joseph E. Crony is running to the West Indies on the Amelia.

Frederick L. Cummings, Jr., joined the Shipping Board vessel Lake Sebago, on December 30th, following his transfer from the Boston district.

Gilroy Rannie was assigned to the Pacific division's Motor Ship Katherine at New York, on December 31st, taking the place of M. R. Holbert, who returned overland to San Francisco.

Walter S. Dubridge, who returned by rail from San Francisco, where he took a ship from New York, sailed on the Derbyline.

Oscar L. Goertz, one of the old timers, who served during the United Wireless days, is on his way to Ireland on the Milwaukee Bridge.

Oscar Foy is on the Hisko

R. H. Redlin, another old time operator, re-entered our service during the past month and sailed on the Steel Engineer.

John L. O'Connell, former chief operator of the United States Mail Liner Susquehanna, was transferred to Mr. Morgan's Yacht Corsair, and E. J. Quinby, who had laid off work for one trip,

rejoined the *Susquehana* as chief. Henry E. Markoe was promoted to second operator and Hugo L. Esberg went out as third on that vessel.

Vincent D. Martino joined the Standard Oil Steamer *Caloria* on December 23rd.

Robert C. Bradshaw had a narrow escape from death when the Schooner *Jane Palmer* sank at sea on December 20th. The entire crew was rescued and brought to the Bahamas, whence they returned to the United States.

James J. O'Brien, a former Great Lakes operator, is serving on the Tug *Standard* the 2nd.

Johnnie Flagg has once again resigned from our service, this time after returning from a trip on the *Jomar*.

John A. Nash arrived in port on the *West Grama* after a trip to Italy. While off the Spanish Coast the *West Grama* had an explosion, which gave our old friend John a chance to be a hero. This is not the first time John has shown himself to be a real radio man, as we all know. Mr. Nash's next trip will be one that will encircle the globe and he will leave within the next few weeks.

BOSTON

ASSISTANT General Superintendent Stevens of the Marine Division was a very welcome visitor to Boston recently. Thought our townspeople solemn. Not a surprise to us; we know the reason.

Robert C. Bradshaw reported here from the five-masted schooner *Jane Palmer*, abandoned 500 miles off Hatteras in a sinking condition. Preparatory to taking to the boats, Bradshaw had packed his duds and radio records in a suitcase, but a sea carried off the suitcase. Bradshaw, determined to carry something away, tucked a ship's cat under each arm and successfully rescued them.

Louis Berman returned from England on the *Royston Grange*, and tiring of awaiting another assignment, surprised us by resigning.

Paul Platt has an interesting and nicely done story of the torpedoing of the *Vigilancia* in recent issues of *Youth's Companion*.

Superintendent Nicholls recently entertained influential citizens of Saugus, Mass., assembled in Town Hall, with a radiophone concert. Mr. Nicholls had the kind assistance of Sergeant Al. K. Hall, U. S. Coast Artillery, and strangely enough, Mr. Hall hails from Pleasureville, Ky. Can you beat it?

Count the pages of High Power activities. Then try to figure if we, in the Marine Division, are slipping into innocuous desuetude. To revive the Britisher's war-whoop; Are we downhearted? NO!

SOUTHERN DIVISION

BALTIMORE

CLAIR HERBERT (SHORTY) WARNER recently returned from France on the sailing ship Brynhilda and is now en route for Detroit and winter quarters. The return trip took fifty-six days and also approximately sixteen pounds from around his belt. After a "rest" of one week in this city, Shorty, his new outfit and three trunks, left for the Middle West.

Mr. P. C. Ringgold, of the New York office, was a recent visitor at this office. When leaving for New York he was heard to remark that he wouldn't leave his hotel room number at our office again.

District Manager Hartley made a flying trip to Baltimore several weeks ago, but for some reason neglected to pay us a visit.

We are glad to hear that the McCauley brothers, on the Green Star steamers Lancaster and Eurana, en route again for the Far East, have safely arrived at Honolulu.

GULF DIVISION

ABOUT all we have to report this time is that there have been very few changes in the radio personnel of ships operating out of Gulf division ports. This no doubt is due to the fact that quite a number of Shipping Board vessels have of late been placed in storage, resulting in a surplus of first grade men.

Our old friend Charles H. Acree, formerly district manager at Galveston, but for the past year attached to the Shipping Board steamer Glenridge, left that vessel recently at Galveston on a thirty days' leave of absence.

James J. Fogarty, for whom we had to rig up a special mail box in the division office in order to accommodate the batches of mail received for him daily, has, after having a year's service on the Lake Grama, lost his happy home through the laying up of this vessel. Fogarty now amuses himself by whistling that beautiful melody, "There Was no Place Like Home."

After twelve months of service in South American waters on the motor ship Mount Baker, Ivar C. Wiberg has been granted leave of absence in order that he may visit his home in Chicago. Later Wiberg expects to apply for re-assignment on the Great Lakes.

Louis G. Kirschenblatt has re-entered the service and is being sent to Tampico for duty on the tug Central American. "Old boy, we feel for you but cannot reach you."

Elmer R. Raguse of the Casiana, and Fred Cochrane of the Wilhelm Jebsen, recently changed jobs while both vessels were at Tampico, the change having been authorized previously.

George W. Shuman, who recently arrived back here in his home town from New York, after having made a globe-encircling trip on the Birmingham City, has been assigned to the Jalisco as junior.

District Manager Ellsworth at Galveston reports that John C. Clayton of the C. A. Canfield, after having been confined in a hospital at Galveston for the past month, is now again ready for duty.

According to Mr. Ellsworth, the operators who have obtained copies of the December issue of *World Wide Wireless* have all expressed their appreciation of the articles on "Abstracting of Ships' Business," stating that these have filled a long-felt want.

We did not hear from our old friend Broussard at Key West during the past month, so presume that there have been no changes made in his district. This also applies to our French professor, Williamson, Port Arthur district manager, who at the opportune moment appears to forget the sending in of his notes for our little publication. We hope that the mosquitoes will let up on him sufficiently to permit his furnishing us with some real live news before we send in our next contribution.

GREAT LAKES DIVISION

FEBRUARY first finds us happily settled in our new quarters at 1599 St. Clair Avenue, Cleveland, Ohio. Being situated a quarter of a mile from the heart of the business section of Cleveland has not daunted in the least the steady stream of visiting waiting-list operators. The quarter-mile jump has taken us away from the tall building section—the tallest building within four city blocks being three stories in height. O. Henry's "*Voice of the City*" has not as yet reached out this far, but we feel that a new financial district will shortly be built around our present site. The layout embodies the superintendent's and chief operator's private offices, a combined construction and stenographic force office, in addition to an operator's lounging room, which latter feature was heretofore unthought of in the Great Lakes division. The offices are partitioned off from the stock-rooms by semi-glazed windows, making the whole look like an institution in itself to the visitor. As the quarters are new, inside decorations were given considerable thought before final plans were decided upon. At any rate, we are set and going strong for the coming season of navigation.

Superintendent Nicholas has just completed a satisfactory trip to Detroit, Chicago, Milwaukee, Ludington and Sheboygan.

F. J. Elliott of the construction force, after taking inventory, completed the wiring of our inter-department buzzer and phone circuits in a highly satisfactory manner.

"Hi-life" Monde, whose heroic brass pounding kept the rest of the operators on the jump during 1920, has re-entered vaudeville, a profession which he threw over for radio some time ago. Monde claims three squares a day and a few iron men a month are better than a roll a week and an empty pocket for the next few months.

Frank Weide is now attached to the Indiana sailing out of Chicago.

Conservatively speaking, a radio operator is a man of parts, as we have noted in the last five weeks. *F'r instance*, operators who have laid up their vessels are now following trades as far removed from anything like radio as an Eskimo is from the Equator; the boys reported as being connected with stock brokers, carpenter shops, vaudeville acts, detective agencies, employment agencies, coal yards, cemeteries, etc. The quality of the operator is, therefore, easy to be seen as being rated above par. During this rehabilitation and reconstruction period a man must take anything that comes along; therefore, it behooves the radio man to set his hand to something other than his chosen line.

UNLIKE OTHER DIVISIONS, WE REQUEST AN APPLICATION FOR EMPLOYMENT FORM BE FILLED OUT PREVIOUS TO THE OPENING OF EACH SEASON OF NAVIGATION ON THE GREAT LAKES, DUE TO THE MAKING OUT OF A NEW ASSIGNMENT LIST EACH YEAR. THEREFORE, IT WILL BE NECESSARY FOR ALL OPERATORS WHO WERE EMPLOYED IN THE GREAT LAKES DIVISION DURING 1920, BUT WHO ARE NOW DOING DUTY IN OTHER DIVISIONS OF THE COMPANY AND WHO CONTEMPLATE RETURNING TO THIS REGION FOR THE 1921 SEASON, TO WRITE FOR THE NECESSARY APPLICATION FORM, SO THAT THEY WILL HAVE THEIR BID IN ON TIME.

PACIFIC DIVISION

A CONTRACT was signed during December for the sale of four $\frac{1}{2}$ kw. submarine type panel sets to the Shipowners & Merchants Tugboat Company. The tugs to be equipped are the Sea Lion, Sea Monarch, Sea Ranger and Sea Scout. The $\frac{1}{2}$ kw. panel sets were selected by the Shipowners & Merchants Tugboat Company after they had carefully investigated the merits of all other systems. The sale was made in the face of very keen competition.

A lease contract was executed during the month with the Union Oil Company of California, covering two oil tankers which they are building—namely, S.S. Montebello and La Placentia.

These vessels will be equipped with the latest modern equipments.

The P-5 panel set has been removed from the S.S. Enterprise of the Matson Navigation Company's fleet and is being given a thorough overhauling, while the ship is being remodeled at the Moore Shipbuilding Yards.

The new tanker S. C. T. Dodd just completed by the Moore Shipbuilding Company for the Standard Oil Company of California was equipped with a P-8 panel set. This vessel carries an auxiliary gas engine and a 10 kw. generator installed in the fore-castle for an emergency outfit. Operator Mackin of the Atlas was assigned to the Dodd, and it is certain that Mackin will keep up the good work which he started three years ago on the Atlas.

A P-8 panel set was installed on the Standard Oil tanker W. S. Miller, just completed by the Union Iron Works of Alameda. Operator Carlson joined the Miller on Christmas eve.

During the month of December a school contract was executed between the Oard Radio Laboratories of Stockton, Cal., and ourselves covering the use of a P-5, $\frac{1}{2}$ kw. 500 cycle transmitter. The results obtained can best be shown by quoting Mr. Paul Oard, president of the Oard Radio Laboratories:

"We have no difficulty in clearing amateur stations on this wave from San Diego to Olympia, Washington, and over to Moscow, Idaho. This with an antenna current of between 3 and $3\frac{1}{2}$ amperes, and with the wattmeter reading at around 400 only. This with rotary, as we find it impossible to hold the motor generator at speed on rectified current when using the quenched, although short readings on the aerial show as high as 5 amperes at 600 watts. It should also be noticed that all station work is over land, and is done easily during the early hours of evening, signals being reported qsa at all distant points that have been worked.

"The above may be of interest in comparison with ship work, showing, as it does, the range on low power. It is expected that much better work will be accomplished yet, as no effort has as yet been made to do serious long distance work on the set."

P. W. Kessler left on the Wapama as senior, taking E. O. Carlson's place when the latter transferred to the W. S. Miller.

F. Wilmhurst, junior on the Klamath, stayed home for Christmas. His place was temporarily filled by Mario Silvestri, a graduate of the Marconi Institute.

Carl Soderstrom of the Motor-ship Charlie Watson was relieved for the holidays by G. Renish, junior of the Lurline. Sigmund Gaskey, one of the old timers, took Renish's place for one trip to Honolulu.

C. Ohlmstead, a graduate of the Marconi Institute, was placed on the Multnomah as junior, taking the place of Richard Stone

who was promoted to senior, caused by L. C. Snow's transfer to the Standard Oil Barge 91. Snow's time on the barge was short, however, due to the laying up of that vessel, and he sailed for Mexico on the Senator as junior with J. A. Hansen, who for the past fourteen months has been crossing the Pacific on the Archer.

Phillip E. Thorne, formerly on the Lurline, is now on a one-man job, the tanker J. A. Moffet, relieving J. W. Ritter, on leave.

SAN PEDRO

Dewey Beraldo, in charge of the U. S. S. B. *Vinita*, arrived home after a five-months' trip to the Orient.

His cargo consisted of his usual smile and a Chow dog. Some one stole the dog, but Dewey still retains his smile, even though the *Vinita* is to be laid up indefinitely.

We had quite a heated argument in our shop some days ago on the definition of the words *pessimist* and *optimist*.

One operator said the word *pessimist* is the same as *static*, and *optimist* is the operator who can work through it.

We must admit that his definition was not far wrong, and we go just a little farther and suggest that the words end with a *mist*, but that their meaning is quite different.

We believe that a good definition of the word *pessimist* would be one who cannot see beyond the *mist*, and an *optimist* is one whose vision sees through the *mist*.

Let's all be *optimists* throughout the year 1921.

SEATTLE

The *Spokane* has gone back on her regular run to Alaska, with Walter Mansfield in charge and L. D. Evans as assistant.

George Wunderlich has returned to his former vessel, the *Admiral Rodman*.

John Nelson relieved Joe Butchinson on the *Rotarian*. Joe will take the *Wheatland Montana* to the Orient on her next trip.

Arthur Lind off the *Wheatland Montana*, is awaiting assignment to a coastwise vessel.

O. W. Lee, of the *West Ison*, arrived recently from the Orient and will have about a month in port.

Recent visitors: P. D. Boothroyd, on the *West Ivan*; R. H. Brower, on the *West Jessup*; Wm. Johnston, on the *Effingham*. They all enjoyed a long stay in port and are now off to sea again on the same vessels.

We dislike very much the end of the month at any time, but our idea of the end of the month at the end of the year can hardly be put into these columns.

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