

A Magazine OF, BY and FOR Commercial Radio Operators and Technicians

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Baldwin type G. phones, list \$12.00; net.....	4.95
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Our New President

Dr. de Forest Heads C.R.P.A.

The de Forest Audion, now commonly known as the three-electrode vacuum tube, is one of the greatest contributions to the advancement of mankind. This remarkable discovery has made possible the development of radio, talking motion pictures, long distance telephone circuits and hundreds of kindred inventions. Dr. Lee de Forest, inventor of the Audion and many other radio and electrical devices, for which he has been granted more than 200 patents, is universally known as the "Father of Radio." His outstanding work has been recognized by scientific bodies, universities and the Government of France. Among the many honors bestowed upon him are: Degree of Doctor of Science, Yale and Syracuse; Cross of the Legion of Honor, France; Gold Medal, St. Louis Exposition, 1904; Gold Medal, Panama-Pacific Exposition, San Francisco, 1915; the Elliot Cresson Medal of the Franklin Institute; John Scott Medal of the City of Philadelphia. In addition, he is a Fellow of the American Institute of Electrical Engineers; a Fellow and Past President of the Institute of Radio Engineers, and Past President of the Society of Wireless Telegraph Engineers. Despite the greatness he has achieved, he is still "Doc" to the wireless operators who worked with him in the days when he was a struggling young inventor, trying, with crude apparatus and limited finances, to establish the first American wireless telegraph stations. Dr. de Forest has not forgotten his operator friends of the early days. He is now helping their successors maintain the high standards of the radio operating profession.

We are indeed fortunate that Dr. de Forest has honored us by accepting the Honorary Presidency of our Association. That we have a steadfast friend and staunch supporter in our new President cannot be doubted after reading his letter of acceptance:

"It is with great interest and approval that I learn of the project of establishing under the title of the **Commercial Radiomen's Protective Association**, an organization designed to promote the welfare of licensed commercial radio operators throughout the United States. --

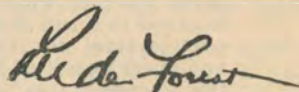
"There is no group of workers on earth in which I take so keen an interest, for it was my unusual privilege to train in the elements of what was then a very rudimentary science the first American wireless telegraph operators. That was back in 1901-02. The fine spirit of morale and devotion to their new calling displayed by the

pioneer operators has permeated the entire profession since those primitive days. On a foundation of enthusiastic interest and unselfish devotion have been built up the traditions which I am proud to observe have characterized the radio operators' profession throughout its existence.

"History records no finer examples of heroic devotion, leading to the supreme sacrifice, than enrich with gold stars the list of radio operators who have 'gone down to the sea in ships.'

"I am glad, indeed, to support a movement intended to carry on these splendid traditions and to promote the interests and welfare of commercial radio operators. It is with pleasure that I accept the Honorary Presidency of the Commercial Radiomen's Protective Association.

"With whole-hearted 73 to all members of the radio operating profession."



Lament on a Sea-Going Lumberyard

By "PJ"

From the Japanese shores to the warm Azores,
From the Straits or the Sound to wherever you're bound,
Whatever you do you will hear the CQ
Of a broad husky spark that will ask "QRU?"

(Chorus)

If there's a seldom-traveled spot upon the ocean,
Or a place that no landlubber ever knew,
Even there 'tis with regret
That you open up your set,
For you'll hear the plaintive murmur,
"QRU?"

Now it seems that every spark and each little chopper arc
Will all start together when you're trying to get weather,
So the lightship can't get thru when it sends CQ.
Let them dangle at the yardarm if they transmit "QRU!"

(Chorus)

If, etc.—

EDITORIALS

Marine radiomen interested in obtaining legislation granting them the protection given other ship's officers should carefully study the laws quoted below.

Department of Commerce Regulations state:

"An operator's license may be granted to any person without regard to sex, nationality or age if the applicant can fulfill the requirements of the class of license desired." (1)

This is the only section dealing with citizenship, age or sex of applicants for commercial operator's licenses that we have been able to discover in International radio treaties, Statutes of the United States and Department of Commerce Regulations.

Following, are excerpts from a few of the many laws and regulations protecting marine mates and engineers:

"And all officers of vessels of the United States who shall have charge of a watch, including pilots, shall in all cases be citizens of the United States." (2)

"That every such vessel—i.e., every ocean and coastwise sea-going merchant vessel of the United States propelled by machinery, and every ocean-going vessel carrying passengers—of 1,000 gross tons and over, shall have in her service and on board three licensed mates, who shall stand in three watches while such vessel is being navigated, unless such vessel is engaged in a run of less than 400 miles from the port of departure to the port of final destination, then such vessel shall have two licensed mates; and every vessel of 200 gross tons and less than 1,000 gross tons shall have two licensed mates." (3)

"Before an original license is issued to any person to act as master, mate, pilot, or engineer, he shall personally appear before some local board or a supervising inspector for examination. Any person who has attained the age of 19 years and has had the necessary experience shall be eligible for examination: **Provided**, That no person shall receive a license as master, first mate, second mate, chief engineer, first assistant engineer, or second assistant engineer before reaching the age of 21 years." (4)

To be eligible for examination for a license as third mate or third assistant engineer (the lowest grades issued) on ocean steam vessels, an applicant must have served at least two years in the deck or engineering departments or had equivalent service on a school ship or on lake or river steamers. In no case is a mate's or engineer's license issued to a person with less than eighteen months' practical experience.

It is our belief that the statutes quoted prove American operators are being discriminated against. In addition, present regulations fail to provide the proper radio protection for the lives of passengers and seamen on American ships, inasmuch as they permit inexperienced operators to be placed in charge of ship stations and do not make any provision for maintaining regular radio watches on a majority of sea-going vessels.

Through the **Commercial Radiomen's Protective Association**, we are endeavoring to obtain legislation which will give marine radiomen the same protection granted to other ship's officers and increase the safety of life at sea by requiring a more efficient radio service.

If this program is to be carried out, **immediate action is imperative**. If you are in sympathy with the aims and ideals of the C.R.P.A. and are not already a member, do not hesitate any longer, **JOIN NOW**. We need your help.—M.R.R.

(1) Radio Communication Laws of the U. S. Department of Commerce Regulations paragraph 146.

(2) Revised Statutes of the U. S., amendment to Section 4131. (Stat. L. vol. 29, p. 188, chap. 255)

(3) Revised Statutes of the U. S., Section 4463. (Stat. L. vol. 40, pt. 1, p. 548, chap. 72.)

(4) General Rules and Regulations Prescribed by the Board of Supervising Inspectors—Ocean and Coastwise—having the force of law under the provisions of Section 4405, Revised Statutes of the U.S.

The International Federation of Radiotelegraphists

EDITOR'S NOTE: This article consists entirely of quoted material, taken from I.F.R. Bulletins and letters received from secretaries of the various organizations affiliated with the I.F.R.

☆ ☆ ☆

The International Federation of Radiotelegraphists was formed at Brussels on June 30, 1922, at a meeting organized by the Association of Wireless and Cable Telegraphists, London, after considerable correspondence with kindred Associations. It was attended by delegates from England, Holland, Belgium, Italy and Denmark.

According to the constitution the objects of the I. F. R. are:

- (a) To secure the adoption of uniform international regulations for the most advantageous use of radio telegraphy for the purpose of safety of life at sea.
- (b) To establish a uniform manning scale and uniform normal working hours on the basis of the eight-hour day.
- (c) To protect and improve the conditions of service and status of all Radiotelegraphists, who are members of the organizations affiliated with the Federation.
- (d) To assist in movements, which have for their object the betterment of industrial conditions, and to secure or assist in securing legislation and more effective administration of existing laws, which affect the welfare of the Radiotelegraphists.

Since its inauguration, the Federation has held ten meetings. At the Tenth Annual Congress, held in London in July of this year, plans were made for representing organized Radiotelegraphists at the next International Radiotelegraphic Conference, to be held at Madrid in the fall of 1932. At this Conference, shipowners are expected to introduce an amendment to the 1927 regulations which will result in dispensing with the services of competent full-time radio operators on a great majority of the cargo vessels, and combine the position with that of mate, mess-boy or some other position aboard ship, in conjunction with an auto-alarm device. The stand taken by the I.F.R. on this question is: "That as far as organized radiotelegraphists are concerned, we must insist that every vessel required to carry wireless under the Safety Convention must also carry a full certificated operator, holding at least a Second

Class (1927) Certificate and that he must be employed to carry out wireless duties."

The following Associations are affiliated with the I.F.R.: The "Association of Wireless and Cable Telegraphists," London; "Vereeniging van Radiotelegrafisten ter Koopvaardij," Rotterdam; "Union des Radiotelegraphistes de la Marine Marchande Belge," Antwerp; "Sveriges Radiotelegrafistforening," Gothenburg; "Radiotelegrafistforeningen af 1917," Copenhagen; "Federation Nationale des Officiers Radiotelegraphistes," Le Havre; "Union der Radiotelegraphistes Espagnoles," Madrid; "Verband Deutscher Funkoffiziere und Beamten," Hamburg; "Electrical Communication Workers of Canada," Vancouver, B. C.; "Suomen Radiosahkottajaliitto," Hango; "Liga dos Radiotelegraphistas da Marinha Mercante," Lisbon and "Eesti Raadiooperatore Uhing," Tallinn. Thus twelve countries are represented.

The radio service is international and is guided by international conventions. At the time of the institution of the I.F.R., there were two conventions concerning radiotelegraphy in force, namely, the "International Radiotelegraphic Convention," London, 1912, and the "Safety of Life at Sea Convention," London, 1914. Both of these conventions were on the point of being revised, and in order to protect the interests confined to the I.F.R., the Executives concentrated their efforts for the obtaining of a representation on the Conference that should elaborate the new conventions.

The I.F.R. was successful in obtaining an official invitation from the United States Government to the Radiotelegraphic Conference at Washington in 1927. An appeal to the affiliated Associations met with a splendid response and made it possible to delegate the Secretary, Mr. T. J. O'Donnell, as the representative of the I. F. R. to this most important conference. It will be recalled that one of the items that had special interest for Radiotelegraphists was the question of new stipulations for the examination of candidates for certificates. It may interest members to learn that the I.F.R. at the annual meeting in 1924 adopted a resolution calling for exactly the same speed test as the Conference decided up in 1927.

The "Safety of Life at Sea Convention, 1914," was revised in London in 1929, but this conference was purely diplomatic and

(Continued on Next Page)

Your License Is in Danger!

SHIPPING INTERESTS PLAN TO LOWER OPERATING STANDARDS.

Following is an item from the Communication Worker, official organ of the Electrical Communication Workers of Canada, which is of vital importance to every Commercial Radioman in the United States.

"The next radiotelegraph convention is to be held at Madrid towards the end of 1932. The shipowning interests are prepared to introduce an amendment to the 1927 regulations regarding qualifications for radio operators through which they seek to lower the standards for cargo vessel operators to 16 groups a minute.

"They have anticipated opposition and arranged that should the amendment be lost a proposal will be introduced requesting that a new "cargo vessel" certificate be adopted, the operating requirements of which will be 16 w.p.m.

"The object of these moves is to dispense with the services of competent full-time radio operators on the great majority of cargo vessels, and combine the position with that of mate, mess-boy, or some other position aboard ship, in conjunction with an auto-alarm device.

"Mr. T. J. O'Donnell, Secretary of the International Federation of Radiotelegraphists, represented all affiliated organizations at the 1927 Convention, and it was largely through his strong presentation of the case for the operators that the present high standard was adopted. It is possible that the I.F.R. will again be invited to have a delegate present and that in such an event Mr. O'Donnell will again be elected as the operators' delegate.

"There are two very sound reasons why we should lend our financial and moral support to representation at the coming convention, the first is to ensure our future position by pressing for a maintenance of the present high standard of qualifications, and the second is to protect the validity of present certificates.

"The period through which we are passing calls for the most rigid economy, yet members will no doubt agree that it would be false economy to decline to participate in representation at so important a meeting as the Madrid Convention. Europe is a long way from here and we cannot afford to wait until a month or so before the Convention assembles to decide whether or not we wish to participate in representation with kindred associations and for this reason we should take immediate action."

GEORGE W. NICHOLLS

1891-1931

It is with deep regret that we record the passing of George W. Nicholls, Superintendent of the New England Division of the Radiomarine Corporation, who signed-off for the last time on September fourth.

Mr. Nicholls had been a member of the radio operating profession for more than twenty years, starting with the old United Fruit Company, and later transferring to the American Marconi Company. He was given an executive position with the Radio Corporation of America when that concern took over the Marconi Company.

Mr. Nicholls' death was a great blow to his many friends, among whom were numbered every marine radio operator in the vicinity of Boston. He was one of the few radio company officials who showed any degree of consideration for the welfare of commercial operators. When fishing companies began slashing wages last spring, it was George Nicholls who came to the assistance of his friends, the Boston trawler operators, and succeeded in obtaining a wage scale much higher than the one the fishing interests had planned to pay. This was but one of his many services to members of our profession.

On September third, Mr. Nicholls came to his office apparently in the best of health. During the morning he became suddenly ill and was obliged to go home. The next day he died of heart failure.

We mourn the loss of a friend who cannot be replaced, a man of high principles and ideals, and a fighter for our cause. On behalf of American radio operators, CQ extends to the bereaved family an expression of deep sympathy and regret.

THE I. F. R.

(Continued From Page 3)

did not officially admit representatives from any organization. However, through the influence of the British Association, an I.F.R. delegate attended in an advisory capacity.

The example set by the various Associations of Radiotelegraphists in organizing on an international basis was followed by other groups of officers in the mercantile marine, and in 1925 the "International Mercantile Marine Officers' Association" (A.I.O.M.) was formed at Paris. This Association comprises national associations of masters, mates, engineers, doctors and pursers. The I. F. R. is affiliated as an International Federation. By this affiliation the I.F.R. has obtained the support of a number of kindred associations. In questions concerning the League of Nations and the International Labor Office, the A.I.O.M. appear to be in a position to render very useful service to mercantile marine officers.

Series and Parallel Circuits

By E. H. RIETZKE

President, Capitol Radio Engineering Institute; Member, Institute of Radio Engineers

II.

If the frequency of the distant transmitter was increased so that the frequency of the incoming signal was such as to cause X_L to equal X_C , then the two could cancel and the total opposition to current flow would be the 5 ohms of resistance. In this condition a comparatively large current would flow in the circuit. As in the preceding paragraph, $I=E/Z$. Z however is now equal to R , so $I=E/5$ amperes. The current will now be practically 26 times greater than before and will be in phase with the voltage. This is shown in Diagram 7 where $X_L=X_C$ and $Z=R$.

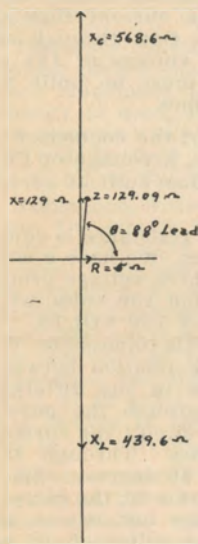


Diagram 6

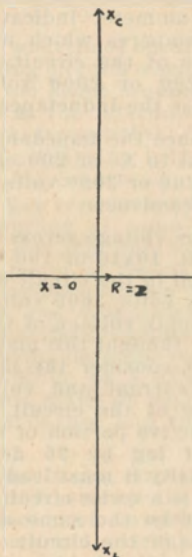


Diagram 7

If the frequency was increased beyond this point the X_L would be further increased and X_C would be decreased and would be equal to $X_L - X_C$ and would no longer be equal to zero. Z would then become greater than R .

It may be stated that IN A SERIES CIRCUIT AT RESONANCE THE IMPEDANCE IS EQUAL TO THE RESISTANCE AND IS AT ITS LOWEST VALUE, THE CURRENT THEREFORE BEING AT A MAXIMUM VALUE AND IN PHASE WITH THE VOLTAGE. A series circuit, at a fre-

quency HIGHER than its resonant frequency acts as an INDUCTANCE and at a frequency LOWER than its resonant frequency acts as a CAPACITY. This is due to the fact that X_L increases with an increase of frequency while X_C decreases as the frequency is increased, and vice-versa. This is shown in Diagram 8 in which the current is shown at maximum and the impedance at minimum in a condition of resonance.

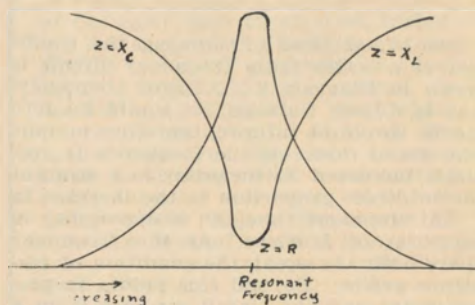


Diagram 8

The equation expressing this condition is,

$$2\sqrt{LC}$$

$F = \frac{1}{2\sqrt{LC}}$ L in Henries, C in Farads, F in Cycles.

Applying this equation to the circuit as shown in Diagram 1 and Diagram 5, where $L=100 \pi H$ and $C=400 \pi F$; converting L to henries and C to farads:

$$L = 100 \mu H = 10^{-4} \text{ Henry.}$$

$$C = 400 \mu F = 4 \times 10^{-10} \text{ Farads}$$

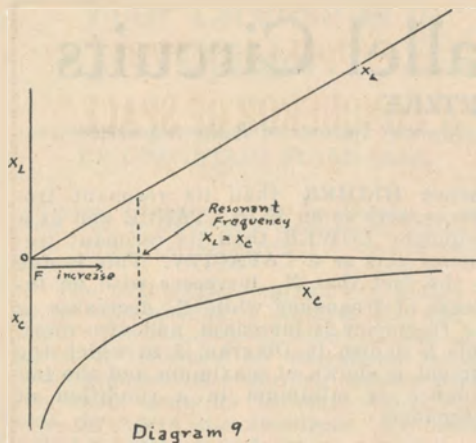
$$2\pi = 628 \times 10^{-2}.$$

The equation for the resonant frequency becomes.

$$F = \frac{1}{628 \times 10^{-2} \cdot \sqrt{4 \times 10^{-10} \times 10^{-4}}} = \frac{1}{628 \times 10^{-2} \cdot \sqrt{4 \cdot 10^{-7}}}.$$

$$F = \frac{10^9}{1256} = 796,178 \text{ cycles or } 796.178 \text{ KS/s.}$$

At this frequency X_L would equal X_C and the total opposition, Z , would be equal to R or 5 ohms.

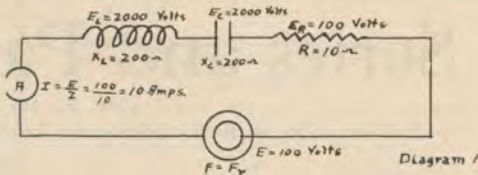


Another method of showing the condition of a series radio frequency circuit is shown in Diagram 9. At zero frequency, that is, Direct Current, X_L would be zero and X_C would be infinite, therefore no current would flow. As the frequency is gradually increased X_L increases in a straight line in direct proportion to the increase in F . At the same time, X_C is decreasing in the form of a curve. At the frequency where both are equal, the condition of resonance exists. Beyond this point, X_L predominates and the circuit changes from a capacitive circuit, (as below the resonant frequency), to an inductive circuit.

We know that in a series the current is the same in all parts of the circuit. We also know that the total voltage across a series circuit is equal to the current times the total opposition, Z , or in other words, $E=IZ$.

In a circuit composed entirely of resistance the total R would equal the algebraic sum of the individual resistances and Z would be equal to R . The total voltage would then equal the algebraic sum of the voltage drops across the individual resistances.

However, in a series circuit composed of L and C as well as R , this is NOT true. In this latter case the total impedance, Z , is the VECTOR SUM of the individual resistances and reactances and may be LESS THAN EITHER OF THE INDIVIDUAL REACTANCES. In fact, as demonstrated in the problem corresponding to Diagram 7, both X_L and X_C were equal to several hundred ohms; the total impedance was only 5 ohms, or equal to R . This means that if this circuit was connected across a source of voltage of 50 volts at the frequency to which this circuit was resonant, the current would be equal to E/Z , 50/5, or 10 amperes.



Let us take an example where $X_L=200$ ohms, $X_C=200$ ohms, and $R=10$ ohms. The alternator is delivering 100 volts at a frequency, F , equal to the resonant frequency of the circuit. This circuit is shown in Diagram 10. The impedance vector would be as shown in Diagram 7 where X_C cancels X_L , making X equal to zero and Z equal to R , or 10 ohms. Since $I=E/Z=100/10$, then $I=10$ amperes as would be indicated by the ammeter in the circuit.

We know, however, that the voltage drop across any piece of apparatus is equal to the impedance of that piece of apparatus times the current through it. In the inductance only, $Z=X_L$; $X_L=200$ ohms, and the ammeter indicates a current flow of 10 amperes which must flow through all parts of the circuit. A voltage of IX_L or 10×200 or 2000 volts must be built up across the inductance alone.

Since the impedance of the condenser is equal to X_C or 200 ohms, a voltage of IX_C , 10×200 or 2000 volts is also built up across the condenser.

The voltage across the resistance is equal to IR , 10×10 or 100 volts. We have a condition in the circuit of three voltage drops, 2000 volts, 2000 volts, and 100 volts, with a supply voltage of ONLY 100 VOLTS. At first thought this may seem impossible. We must consider the phase relation between the current and voltage in the different parts of the circuit. Through the purely inductive portion of the circuit the current must lag by 90 degrees. Through the capacity it must lead by 90 degrees. Since this is a series circuit, however, the current must be the same at any instance in all parts of the circuit. The voltage built up across the inductance must therefore be such that it LEADS the current by 90 degrees and across the capacity the voltage must be built up so that it is 90 degrees BEHIND this same current. This would place the two voltages 180 degrees out of phase or in exact opposition at every instant. These two voltages therefore, being equal and opposite, cancel and have no effect on the circuit as a whole. The total applied voltage of the alternator is expended in forcing the current through the resistance and this current and the applied voltage will be in phase with each other. The total voltage across the circuit will equal the vector sum of the individual voltages, i.e., $E=\sqrt{E_R^2+(E_L-E_C)^2}$. At a

condition of resonance this will be, $E=E_a$.

It is evident that at series resonance very high voltages may be built up across the various pieces of apparatus in a radio frequency circuit while the applied voltage is comparatively low. A good example of this is in the antenna circuit of a medium power arc transmitter. An applied D.C. voltage of 500 volts, when changed into an alternating voltage, will often build up a voltage at the extreme end of the antenna of 50,000 volts or higher. This is particularly the case if too small an antenna is used at too low a frequency. The small antenna means a small capacity, which in combination with the low frequency, produces a high capacity reactance. Since the circuit is worked at resonance, the current will also be large, therefore the voltage drop, IX_c , will be of a high value. In this same condition considerable inductance is used to load the small antenna to obtain the low frequency, the X_L therefore being high also. This will sometimes result in brush discharge around the turns of inductance and at the switch points.

This same condition sometimes occurs in vacuum tube transmitting circuits when too much inductance and too small a value of capacity is used, even at the intermediate and comparatively high frequencies. This will usually show up by sparking between the plates of the variable condenser.

Resistance, while it has very little effect when the circuit is worked at some frequency other than its resonant frequency, becomes the deciding factor at resonance. For example, in the problem shown vectorally in Diagram 6, the five ohms of resistance could be practically neglected. The reactance of 129 ohms determined the impedance and the addition of 1 ohm, 5 ohms, or 10 ohms, would make no appreciable change in the impedance and therefore in the current.

However, when this same circuit is worked at its resonant frequency the resistance is the only factor of importance as far as the impedance and current are concerned. The reactances may be 10 ohms or 1000 ohms; as long as they are equal their effect on the impedance is zero. If the resistance is varied the value of impedance varies directly as the variation of resistance. In the problem corresponding to Diagram 7, $X_L=X_c$ and may be neglected. R was equal to 5 ohms and the voltage was equal to 50 volts. The current was therefore 10 amperes. Now, if the resistance is decreased to 1 ohm the current will increase to 50 amperes. If the resistance is increased to 10 ohms the current will be only 5 amperes. It is apparent that in tuned radio frequency circuits which are nearly always worked at or very near resonance, the resistance of the circuit is the

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limiting factor. If the circuit is in a receiver, the receiver which has the lowest resistance circuits, everything else being equal, may be expected to produce the strongest signals and the greatest reception distance. Also in a transmitter, the most efficient circuits are the ones having low values of resistance. (With the exception of an antenna circuit.)

(To Be Continued)

The C. R. P. A.

What is Commercial Radiomen's Protective Association? Who is sponsoring it? What are its aims and ideals? Who is eligible for membership? Are any persons other than Commercial Radiomen connected with the organization? These questions, and many others, are contained in the flood of mail that has poured into CQ Headquarters during the past two months.

Organization

Briefly, the C.R.P.A. is a national organization OF, BY and FOR licensed Commercial Radiomen, including those employed in Airways, Broadcast, Coast, High-power, Marine and Point-to-point stations. It is sponsored by CQ and its objects are: **TO RAISE THE STANDARDS OF THE COMMERCIAL RADIO OPERATING PROFESSION AND TO OBTAIN IMPROVED CONDITIONS FOR COMMERCIAL RADIO-MEN.**

The present plan of organization is as follows: A national organization, capable of protecting and obtaining benefits for Commercial Radiomen as a whole; and subordinate units for handling problems peculiar to separate classes of operators and technicians (such as Broadcast, Marine, etc.), in various Districts. This plan prevents duplication of effort and insures co-operation in matters which must be handled through national and international agencies; in addition, it permits small groups of members, through their subordinate units, to solve purely local problems intelligently.

Membership

There are four classes of membership, Honorary, Charter, Active and Associate. Honorary Members are men such as Dr. Lee de Forest, who have made outstanding contributions to the science of radio communication or to the Association. Charter Members are the one hundred commercial radiomen who founded the C.R.P.A.

To be eligible for Active Membership a person must hold a Commercial or Broadcast operator's license and be employed as a commercial radioman, or have been employed in that capacity during the past year. The minimum cost of Active Membership is five dollars, of which two dollars are for initiation and the rest for six months' dues, at fifty cents per month.

Any person interested in commercial radio is eligible for Associate Membership, which costs two dollars and fifty cents per year. Associate Members receive a subscription to CQ and are sent Association bulletins and other information.

Program

The C.R.P.A. proposes to raise the standards of the commercial operating profession and obtain improved conditions for commercial radiomen by the following methods: Building up a spirit of friendship, good-will and mutual understanding among commercial radiomen; attempting to obtain favorable publicity and legislation; co-operating with employers; maintaining a monthly publication; combating unfair methods or misleading advertising sponsored or used by certain radio schools; co-operating with existing organizations of commercial radiomen throughout the world and performing any other service which may assist commercial radiomen obtain better conditions.

Directors and Officers

The C.R.P.A. Constitution provides for a board of five Directors. Equal representation is obtained by dividing the United States into four Districts—Atlantic, Great Lakes, Southern and Pacific, and electing one Director from each District. The President, who is also a member of the Board, is elected by the membership at large. The Executive Secretary is appointed by the Board. **All officers handling Association funds are required to be bonded for at least \$5,000.** The Constitution defines the powers and duties of Directors and Officers and provides a means whereby members may censure or remove from office Association officials who do not carry out the wishes of the membership.

The C.R.P.A. is OF, BY and FOR licensed Commercial Radiomen in every respect; it is absolutely independent, no company, organization or other interest owns or controls any part of it. The Constitution provides that Association officials and voting members must be licensed operators.

The membership list is kept by the Executive Secretary, who is not authorized to reveal names of members except with the written consent of members concerned.

Operators wishing to join the C.R.P.A. may obtain printed membership petitions from members, or by writing to the Executive Secretary. All fees should be sent direct to the Secretary, who is the only person authorized to issue membership cards.—M.R.R.

The present staff on the "Leviathan" consists of: E. N. Pickerell, chief; A. E. Jackson (JK), asst. chief; watch operators, Henry Von Thun (VN); Albert J. Locher (AL), and J. F. Smith, Jr. (JS).

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Pioneer Radio Operators

By Dr. Lee de Forest

In the Summer of 1903, on little old Block Island wireless history was made, in a discovery which has proven of incalculable practical value ever since—the long, untuned, directive, horizontal receiving antenna. And one Barnhard, the first American wireless telegraph operator, made the discovery. Write that down in your logs!

I hurried back to New York to help our sorely beset gang report the last four of the international yacht races. We had long been planning that event for the Publishers' Press Association; and had guaranteed them that the sad nullity of our 1901 experiences would not be repeated.

We had in consequence loaded a huge tug with a cumbrous 5 K.W. d.c. motor—60-cycle generator set, and enough storage batteries spread out over her after-decks to well-nigh sink her—determined this year to have such an excess of power that the Marconi-equipped A.P. yacht couldn't successfully jam us, as she had two years previously.

But the two squat spars which the tug could carry supported an antenna all too small for that transmitter; and although our signals were plenty strong for the distances to Coney Island, they were of low spark frequency, and our tuning (and Marconi's also for that matter) was too broad to afford much protection against mutual jamming.

It looked then as though our yacht-race reporting, second episode, would read deplorably like the first.

Then, too, a new and entirely unexpected sea-serpent appeared over the Sandy Hook horizon. A two-masted brick schooner, towed about aimlessly by a tug, (for this pirate caravan was not permitted to follow the races)—revealed on board a lively kerosene engine driving a 2 K.W. 120-cycle generator, a well-designed spark-transmitter, and a speedy operator who knew reams of ribald poetry and all the cuss-words and obscenity in the English language. These, in good Morse, he hurled over the ether, from 10:00 a.m. until sunset; and neither the Marconi A.P. yacht nor DeForest Pub. Press tug could get a word in spark-wise.

To add to the joy of Nations, Prof. Fessenden had just opened an installation up on Atlantic Highlands, chiefly for the purpose of showing the whole wireless world that the only real system of tuning was the Fessenden.

A complete log of the operators' pleas-

tries which were bandied back and forth through the Sandy Hook ether during those two weeks of September, 1903, would have made spicy reading for the Federal Radio Commission, had there been such an institution in those good old free-for-all days.

After two days of wireless failure and short-wave flag-signalling, I realized that my floating Goliath was just a big radio bum, and that a high finesse David could alone win the belated victory for Coney Island. Taking a leaf out of my early Armour Institute tests of two years previous, where a high-frequency spark was generated from a Wehnelt interrupter and Rubmkorf coil, Harry Brown, Pop Athearn and I installed one overnight on our tug, in place of 5 K.W. 60-cycle generator and transformer.

I couldn't find a ready-made electrolytic interrupter in all New York, but with a collection of long thin steel rods, a porcelain tube, dipping down into an earthenware crock containing dilute sulphuric acid and a lead plate cathode, we managed fairly well. Only the end of the steel rod was consumed so rapidly by the submerged spark that it was necessary to push it down farther into the acid every minute or so. This process, while the high-tension spark coil was in operation at full-speed, on deck of a tug tearing across the rough seas, with conducting salt spray flying over everything, the entire ensemble mounted on top of a hundred acid-leaking storage batteries (we had had no time to unload these heavy supernumeraries on the dock), was a task calling at once for skill and dogged heroism and a saving sense of humor.

I can still see Harry Brown perched up on a wooden stool, for better insulation, with wry face and rich profanity reaching gingerly over at that jar of acid and gently tapping down the end of that steel wire with a small tack hammer, whenever the sound of the spark became guttural and irregular! But this queer gear turned the trick. Our shrill, squealy signal, while not loud, nevertheless could be read by the keen ears at the Coney Island head-phones through Marconi's hammer-like spark, through the more musical note from the 120-cycle of the pirate's brick schooner, Harry Shoemaker at the key, and the bursts of God's static which were frequently thrown in just for good measure.

(Dr. de Forest's account of the early days of "wireless" will be continued in the December issue.)

BREAKS

by
THE SKIPPER

BRAVE MEN OF THE SEA

"The wreck of the S.S. Columbia was attended by the display of heroism that without exception marks such a disaster. The crew remained alert. The passengers were courageous, and took their hard experience not only without a whimper, but with a smile. Not a life was lost, although many might have been sacrificed had there been any panic.

"Among those who gave notable service in the emergency were two radio operators, E. A. Hatch and W. H. McClung, both, as judged by their pictures, very young men, as is true of most of their class. After they had rapped out the significant SOS, the radio went silent. The two hastily rigged another apparatus, and by working with the improvised agency, guided the rescue ships to the scene. This was the showing of presence of mind, quick thinking and plenty of nerve.

"Perhaps the conduct of these two young men will call attention to the tendency of shipping concerns to minimize the value of services rendered by radio operators. On many lines they are said to be over-worked, and on some lines the pay, never generous, has been cut and the number of operators reduced. This does not seem to be a wise economy. The operators have begun to chafe at conditions and are considering means by which they may be changed for the better."

Through the efforts of CQ, the above editorial was published in the principal papers in the Copley chain of seventeen newspapers. This is typical of the many items we have succeeded in having published in more than fifty newspapers throughout the country. As the C.R.P.A. grows, we plan to increase our publicity activities. Eventually we hope to send regular news releases to all the principal newspapers and magazines in the U. S.

Operators Hatch and McClung deserve the highest praise for their heroism in saving the lives of the 231 persons on board the "Columbia." It is men such as these who have established and maintained the fine traditions which have characterized our profession since its beginning.

* * *

Which shall it be? The "Davey Jones Club" or the "SOS Club." Our suggestion

for establishing a "Caterpillar Club" for radiomen, who have sent an SOS which resulted in saving human life, has started a controversy over a suitable name for such an organization. I should like to receive suggestions from the rest of you SOS operators. Which name do you prefer? Being neutral, I'll probably have to call it the "SOS Jones Club" until a name is definitely decided upon. Here are the names of a few prospective members: H. J. D'Aquin, with two SOS calls to his credit; one while he was operator on the SS. "Madison," when she collided with the SS. "Louisiana" near the mouth of the Mississippi, October 28, 1926; and the other while on the SS. "Tampa," which threw a tail-shaft in a hurricane in the Gulf, September 29, 1929.

Maurice Holland (now at WEA), and John F. Smith, Jr., (at present on the "Leviathan"), who were operators on the SS. "Robert E. Lee" when she ran ashore near Manomet Point, Mass., March 10, 1928. This is perhaps the longest SOS on record, lasting from 7:35 p.m., March 10, until 1:35 p.m. the next day.

Charles Martin and Elmer J. Stenman, operators on the SS. "Harvard" when she was lost on Point Arguello, May 12, 1931.

E. A. Hatch and W. H. McClung, on the "Columbia," when she was lost on Point Tasco, Lower California, September 13, 1931.

Operators having any information regarding marine disasters in which radio figured prominently are requested to forward it to CQ. Data concerning marine catastrophes prior to the War are especially desired.

* * *

Again, I wish to remind you that CQ is your magazine. In order to publish a magazine that you will want to read we must know the type of material you like best. Which do you prefer, "Slim Phitts" stories or actual experience yarns, such as "Up Where the North Commences," published last month? Do you think we should run more, or less, fiction? What do you think of the Editorials? (I hope this gets by the Editor.) Are they timely and to the point or dull and dry? (I don't believe it will, hi.) Shall we publish more articles similar to "Commercial Radiomen and the Naval Reserve" (August) or fill our pages with technical and operating notes or schedules? What departments or features do you like best? Which ones do you dislike? Why? Write a letter telling me just exactly what you think of CQ—don't be afraid to criticize or make constructive suggestions.

We are anxious to obtain material of interest to broadcast operators, especially personal items, technical notes and station descriptions. We want to start a Broadcast Operators' Page but are unable to do so

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from lack of contributions. If you BC men want a section in CQ don't be so shy and retiring, let's hear from you. That goes for Airways, Coast Station and Point-to-point ops too.

* * *

KUH, Manila, has discontinued press at 1705 GCT. This station sends PX at 0800 GCT on 18, 26 and 36 meters. This is the only station sending local WX for the PI, ships may obtain IBA, Corregidor, Cebu, Iloilo and Zamboanga WX from KUH when close to the Islands.

* * *

Three new Radio Beacons are being installed on the coast of Uruguay. These stations, which will be in operation next summer, will be located at Lobos Island, Cape Polonio and English Bank Light-vessel. They will operate on 600 meters and between 950 and 1050 meters.

* * *

Foreign ships in Russian waters are forbidden to use wireless communication without permission of the Soviet. The only times at which foreign vessels may use their radio sets without permission are when handling distress traffic.

* * *

During the next year, the Airways Service plans to construct stations at: Spokane, Wn.; Pueblo, Colo.; San Antonio, Tex.; Houston, Tex.; Titusville, Fla.; Miami, Fla.; Springfield, Mo.; Milford, Utah; Brownsville, Tex., and Garden City, Kansas.

* * *

I am going to have to apply the Big Brass Bug to the birds who persist in making long calls, without signing, on short waves.

* * *

PERSONAL ITEMS

P. S. Berry, (A), one of the oldest of Old-Timers has been assigned to the new Government dredge "Robert McGregor," working on the Mississippi. Berry was an operator in the days when "Pop" Musgrave, George Davis, Patsy Ghegan, Bob Smith (of "UJ" fame), and Eddie Commagere were pounding brass at sea.

* * *

The U. S. Engineers' station (WY CJ) at West Memphis is manned by the following: Mr. Hammond, chief; Frank Hagen and Operators Eddings and Wadlow. On the steamers are found: Hardy, "Aldebaran"; Gates W. Farmer, "Chisca"; Tatlock, "Saturn"; Sims, "Jupiter"; Moates, "Griffith." Operating on the dredges are: Yancey, "Zeta"; Johnson, "Harrod"; Ingebritsen, "Iota," and P. S. Berry, "McGregor." The Steamer "Inspector" will soon be out with Operator Dobbs on board.

Among the ex-marine ops employed in the NBC main control-room in San Francisco are: D. W. Kennedy, ex "State" ships, Pacific Mail and I.M.M.; C. E. Kilgore, ex-"Prexy Arthur," and many freighters; Steve C. Hobart; E. F. Wilmhurst, ex-"Malolo," "City of L.A.," etc.; George B. McElwain, formerly with RCA in the Service Department; H. Hinkle, at one time on the Oceanic ships to Australia. In another department is C. L. McCarthy, ex-WSA, WSH, I.M.M., T.R.T. operator.

* * *

Other old-timers around the Bay Region are: Shorty Evans, Joe Baker and A. E. Fisher, all at the KGO transmitter. And last but not least by far, Dick Johnstone, who may be found during working hours at 2065 Chestnut Street, sitting in the midst of a bunch of haywire BC sets, trying to make them perk. Apparently RJ has renounced the sea forever, in spite of the fact that I've heard him tell of hearing stations 3000 miles (or was it 6000) on a crystal receiver. Drop me a line RJ, many of the gang would like to hear from you.

* * *

The address of KFS is: Mackay Radio Station KFS, Alexander and Crocker Streets, Daly City, Calif. At present Ray Farrell is in charge, assisted by the following: Wm. Blake, Jr., second; Operator Kent, third; James Chambers, SW opr.; Operator Cady, SW. The point-to-point service is in charge of J. O. Watkins, engineer, assisted by Lloyd Pilgrim, John Oldaker (late of KNN), and James Ball.

* * *

N. O. Gunderson, who spent more than a year on the Union Oil tanker "Utacarbon," is now assistant to Harry Coyle, Marine Supt. for Mackay, in S.F.

* * *

Notes from the Capital Radio Engineering Institute Bulletin:

A. L. Meggers, maintenance engineer for TRT, has been transferred from Miami to Swan Island.

Clyde E. Roberson, formerly of the Airways Radio Station at La Crosse, Wis., is now in charge of the new Airways Station at Minneapolis, Minn.

L. A. Penrose, T. & W. A. operator, has been transferred from Tulsa, Okla., to Harrisburgh, Penna.

Lawrence L. Monett, American Airways operator, Hopeville, Ga., is now at the Union Airport, Burbank, Calif.

The S.S. "Angeline" has been laid up for the winter, putting W. H. Miller on the well-populated "Beach Maru."

Hans Andersen, Airways operator, has been transferred from Roberson, Mo., to Whitehaven, Tenn.

C. O. Carlson is now on the "Saccarappa" running to Europe.

CORRESPONDENCE SECTION

Signed communications only will be accepted for publication in this section, names of correspondents will be withheld on request. The publishers of CQ assume no responsibility for statements made herein by correspondents.

★ ★ ★

Editor CQ:

I am returning herewith my copy of the C.R.P.A. tentative constitution. I heartily approve of this document; it conforms completely with my ideas of what is needed for an organization of commercial radio operators. Now that we have started an organization, I should like to make a few suggestions regarding ways and means of accomplishing our aims. These are as follows:

a. To assist any radio school that conforms to our requirements, which might be as follows: Conservative advertising; no questionable statements regarding wages paid operators, chances of advancements, etc. Complete courses: including practical repair work on the various standard sets; instruction in starting and stopping these sets; abstracting traffic and computing rates; how to use the Berne List; Radio Aids to Navigation, rate cards, and other publications; how to decipher Weather Bureau code; times at which the major time, press and weather schedules are broadcast; the proper procedure for handling traffic, and other subjects now included in the curricula of only a few schools. Schools that have been investigated and come up to our standard should be officially approved by our Association, and permitted to advertise in our official organ.

b. Regarding obtaining improved conditions for marine operators; my opinion is that we need some good high-pressure publicity stressing the fact that, no matter how many operators a ship has or how good her apparatus is, she has very little radio protection if the ships in her vicinity have no operator on watch, inadequate radio equipment or an operator who is just capable of passing the present license examination. When one considers the matter, the best equipped ship afloat, manned by the most proficient operators, is like a "Volunteer Fire Department" having a new hose reel and hose but with no possible way of getting water or pumping it. **Until all ships are required to maintain a continuous radio watch the passengers and seamen on American vessels will not receive the radio protection they are entitled to.** At present ships keeping a continuous radio watch provide the only reliable protection of life and property at sea. I be-

lieve that a publicity campaign, designed to make the public aware of existing deplorable conditions, will bring about legislation requiring more stringent rules governing the equipping of ships with radio and the issuance of licenses to operators. This, in turn, will cause a greater demand for operators and thereby make very much easier the job of improving conditions in **all radio fields.**

c. We are attempting to obtain more equitable legislation. Why not begin by making a drive for adherence to the present laws and regulations? The hamming, jamming business, practiced by so many operators should be stopped. We should do something about the lads who persist in calling "CQ, QTC?" every few minutes, to say nothing of those who try to send their TR's to a dozen stations; start sending without any warning whatsoever (or without listening in first); tell some other operator to "Give my love to Helen," or "Keep away from the Glue Pot," while some of us are trying to work traffic.

Then there are those who prefix any kind of rag-chewing with a "SVC" and in many other ways seriously interfere with the efficient working of public correspondence. Of course, some of this hamming may be tolerated in areas that are not congested, however, within 500 miles or shore nothing except legitimate public correspondence and ship's business should be handled, and that handled in such a way as to minimize interference.

I believe that the members of our organization should do their utmost to assist the Radio Commission and the Department of Commerce in the enforcement of the laws and regulations governing radio communication. As individuals, we have always been too soft hearted to report operators who break the laws; possibly we felt that there was no use to report one poor guy when a thousand others were doing the same thing. Now, as an organization, we can easily pass a resolution pledging rigid adherence to the laws; we can advertise this fact in CQ, together with a notice, "On and after a given date all infractions of the rules and regulations governing radio communication will be reported to the proper authorities. Leniency will be exercised in reporting infractions off-shore or out of congested areas but, if such infractions seriously interfere with legitimate traffic, they will be reported, though not without due warning to offending operators." After inserting this notice in several issues of CQ we should arm ourselves

with a pad of infraction report forms and send a few to the Department of Commerce. It will only take a few reports to clear the air of superfluous signals in congested areas, giving the operators at such stations as WSC and WAX cause to smile for the first time in history. Emphasis should also be placed on the strict observance of the regulation requiring the suspension of traffic during the three-minute periods. This regulation was made to insure hearing distress signals sent by ships away from the regular lanes. It is appalling to note how it is ignored by a majority of marine operators.

I trust that the above suggestions will meet with the approval of sea-going members of the C.R.P.A.

Faternally yours,—A.W.R.

* * *

Editor CQ:

I read Harold Crosby's article, "Commercial Radiomen and the Naval Reserve," in your August issue and believe that the main point has not been mentioned at all. On several ships on the East Coast, an operator cannot get a job unless he is a member of the Naval Reserve. In what other line of commercial work is a man required to join a military organization before going to work? I consider this practice a most serious interference with civil life in peacetime.—73.—O. T.

* * *

Editor CQ:

How sad and true is the article by Lieutenant Pyle in the September CQ. On many freighters and tankers the radio room and operator's quarters are more in need of paint and a general cleanup than any other place on the ship. Of course, this does not apply to all ships; however, of the many one-man ships on which I've been employed, there was only one on which the paint and woodwork had been recently cleaned. In most cases it appeared as if the radio room had not been painted since the ship was launched.

On all the ships to which I've been assigned as operator, I've taken the trouble to paint and varnish the radio shack and quarters, and have tried to keep them clean afterwards. Apparently there are very few operators who believe in the saying, "Leave a place as you would like to find it." On one-man vessels there is no excuse for a dirty and unpainted radio room or verdigris-covered brasswork. Operators on these ships have plenty of spare time, even when they are required to do clerical and other extra work. There is just one reason for dirty shacks and filthy equipment,—**LAZINESS.**

I just made a relief trip for one of the lazy, "don't-give-a-damn" type of operators

who, when he had to have his license renewed, thought it wasn't worth the trouble to study a few oral questions on Heising modulation, etc., and, instead of renewing his first-class license, accepted a second-class ticket. His contention that "it wasn't worth the trouble," and "he got the same pay anyway," no matter what license he held, plainly showed that he was far from being a credit to our profession. When talking to him about organizing to improve conditions I got the reply, "That organization racket is an easy way for somebody to get money and live ashore in comfort at the expense of us guys who're doing all the dirty work." At least, he was right, about the "dirty" part. There was plenty of dirt in his shack and on the bright work of his equipment.

—73 and Success—N.J.B.

* * *

Editor CQ:

For three or four months I have been a reader but not a supporter of your publication; that is not the case now, for I decided that the magazine OF, BY and FOR commercial radiomen is the answer to a long-felt need.

I have, during the past ten years listened to innumerable static-room harangues and conversations about the injustices and awful conditions of the radio telegraph game. Yes, and at times, I've aired my own opinions. As I see it now, I have not done it in the proper place. How many of us: Marine operators, coast station men and repairmen have heard these complaints voiced at one time or another? "That Skipper! Say, I was with that Bozo!" "You've certainly drawn a hard one O.M.; he doesn't want an Operator, what he demands is a 'lucky'." "Imagine that, \$90 per! with all the clerical work, cargo checking, ships electrician, night-watchman, super-cargo, accountant, messenger-boy, etc., etc.; Whew! and on a rusty old tub like that." "She carries the American flag but it's the Greeks who run her."

"What makes me mad, is to see Percy Horace, that student with his brand new ticket, grab off that soft berth paying \$105 per with extra dough for the Captain's clerical work. How come! I been working at this game for my bread and butter for years, but these students seem to grab off the good berths! I ask yuh, how come?" Up speaks Bill? "Say listen! What are you fellows griping about here?" "Why don't you birds try telling off the Skipper when he demands paper work without extra pay?"

We admire Bill's spirit because we know the justice of what he has said! Jack decides that Bill has the right idea and determines to let his next Captain know that he signed on the articles as Radioman

and not in a dozen different other capacities! "Haven't I any rights?" reasons Jack. Doesn't the Book of Rules say: 'Operators are treated as Officers without executive authority and shall be provided accommodations suitable for an Officer'? Are not eight hours considered to be a day's work? Jack makes an earnest endeavor to secure what he considers to be just and right, but, Lo and Behold, the Captain, the Steamship Company, the ship's Officers and, last but not least, his employer's representative have other ideas about what an Operator should and should not do! Jack soon finds himself detached from the ship by the Radio Company's representative because the Captain made complaint. It was not necessary for the Captain to give a reason! Jack finds a place in the static-room of the Beach Maru; Bill is still there. It's "Hello O.M., how goes everything? Where yuh been? What kind of a trip? etc., etc."

The story is told. Bill informs Jack that it sure is tough, but that at least he has had it better than himself. Jack does not understand until Bill explains that he has been holding down the Beach Maru for months; not having had a berth since last they met! Jack learns from Bill that he cannot expect to get another ship for a long time to come. Why? Because there are other "Operators" whom the Radio Company can employ; the employer's representative making sure beforehand that the other "Operators" are not adverse to complying with all demands of any and all Skippers.

In the case of Jack, he is left sitting on the Beach Maru for some weeks or months or until such a time as the Boss thinks he might have had time to think it over. When Jack learned his lesson, he is given another trial. Bill, however, is seldom given another ship, except when the Radio Company has some old rusty tub that no other Op will take; for the employer's representative knows Bill; he is quite sure Bill will never be "amenable."

Are any other Operators opposed to conditions as they exist today and are they still voicing their complaints in the static rooms? You coast-station Operators who are griping about the "lids" on the ships, how do you feel? Jack and Bill are active supporters of "CQ" and both believe that there is only one way out—membership in the C.R.P.A.

Come on, fellows, let's get together; we can voice our troubles in "CQ." We can get behind the big push to improve conditions for all commercial radiomen. Your help and co-operation are needed now! If you want to be worthy of the name of "Operator," you should co-operate with the men who are trying to help you by subscribing to "CQ" and signing up with the C.R.P.A.

73—JCC.

RADIO ~ TELEVISION

The good jobs in any profession are held by the better-than-average men — the men with technical engineering training.

The leaders in radio today are the men who were STUDYING radio ten years ago. The leaders in Radio and Television tomorrow will be the men who are seriously preparing today.

We offer Advanced Courses in Practical Radio and Television Engineering for the experienced radioman—Complete Courses in Practical Radio and Television Engineering for the less experienced radioman.

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Please send me without obligation complete details of the following course: (Check course.)

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(Nov. CQ)

At Last!

A Real Handbook for Marine Radio Operators

In 1925 the **Commercial Radio Traffic Manual for Marine Operators** was published by Howard S. Pyle. This Manual was adopted as a standard text on traffic handling by a large number of radio schools and institutes. Since that time, there has been an increasing demand for a larger handbook embracing the care and upkeep of Spark, Arc and Tube Transmitters, Marine Receivers, and auxiliary equipment, as well as a treatise explaining Traffic Handling Methods; Time, Press and Weather Schedules, Conduct Aboard Ship, and in general, a complete book of information regarding the practical work connected with Marine Radio Operating.

Backed by twenty-one years' experience as a Radio Operator, ashore and afloat, in many parts of the World—former Asst. U. S. Radio Inspector—one-time Marine Manager for RCA; a background of PRACTICAL experience, such a book is now going to press under the title of

COMMERCIAL MARINE RADIO OPERATORS' HANDBOOK

by **Howard S. Pyle**. The first edition will be limited; many orders have already been received, to insure receiving a copy of the first edition order NOW, direct from the author. The **HANDBOOK** will be ready for distribution about November first.

\$1.00 per Copy



HOWARD S. PYLE

P.O. Box 873

Seattle, Wash.

LIMERICK CONTEST

SEPTEMBER WINNERS

Mrs. D. Patterson, 140 East 34th St., Portland, Ore., was awarded first prize in the September Contest. Mrs. Patterson's prize-winning last line is given below:

"Radio or Wireless, which is right?"

Ask all the passengers day and night

And you have to sit there

And reply in dispar—

"Both!"—till you feel your hair growing white.

Five other prizes were awarded to:

William Black, 945 Redhill Ave., San Anselmo, Calif.:

—Till land brings new queries to light!

O. R. Anderson, W7WH, 1145 Liebe St., Portland, Ore.:

—"It was wireless before radio hove into sight."

H. B. Grimm, 6084 Northcott Ave., Chicago, Ill.:

—"Ask Marconi, I never was bright."

B. G. Robinson, R.F.D. No. 3, Spartanburg, South Carolina:

—" 'Sall the same" (now get outa my sight).

Mrs. Blanche Grampp, 3838 Bellefontaine, Kansas City, Mo.:

—While punching noses would give you delight.

CONTEST RULES

A \$5 cash prize will be given for the best line submitted for the limerick published each month.

\$1 prizes will be awarded for the five next best answers.

Contestants must submit answers not later than the 15th of the month succeeding date of issue of the CQ containing the limerick prize for which they are competing.

No correspondence will be entered into regarding the contest and no contributions will be returned.

In the event of a tie, the full amount of the prizes will be awarded to each tying contestant.

The Editor of CQ will be the sole judge of the contest. The contest will run for six months, ending in the January, 1932, issue.

Great Lakes Notes

Edited by C. L. HOPPER

(All contributions for this department should be addressed to C. L. Hopper, S.S. Ann Arbor, No. 7 Frankfort, Michigan.)

GREETINGS! Here we have a new page in **CQ**, devoted exclusively to Great Lakes operators. In "Great Lakes Notes" will be found news of interest to a GL men, as well as those on the East and West Coasts. In addition, our new section will contain personal items, notes on the employment situation and any other items you may care to contribute. We hope to have the last word in humor, too.

This is your page, Great Lakes men. Let's make it a snappy, interesting section. Don't spare Uncle Sam's mail carriers, send in contributions until it hurts. If necessary, I shall persuade the OM (maybe) to let me use his office to read and sort the mail you fellows are going to send. How about it? Do we have a live, newsspage in **CQ**? It's up to you!

Probably you already know that Dr. Lee de Forest has accepted the Honorary Presidency of the C.R.P.A. Fellows, with a man like Dr. de Forest at the head of our organization, we **can't** lose. I understand he will support our cause and use his influence and prestige in our defense. Every Great Lakes man owes it to himself to read **CQ**, find out what it stands for, and then "follow through with action," by adding his name to the ever-growing list of C.R.P.A. members.

It is told of a radio operator, while on shore leave at some Eastern port, was arraigned in court for assault and battery on one of his shipmates while the two were partaking of some potent swamp juice in one of the numerous speakeasies.

"What is your name, occupation and what are the charges against you?" demanded the stern looking judge.

"Sparks, Radio Operator, charged with battery," replied the brass-pounder without even as much as blinking an eye.

"Put him in a dry-cell," was the court's reply.

Who's where and where's who? We need a lost and found section in "GL Notes." If you hear of an operator leaving the Lakes and heading for the sunny shores of California or the balmy air of Florida, let us know, so we can publish his new QRA in this section.

Now that the 1931 season is drawing to a close, the air is becoming quiet. It is with pleasure that I have noted the splendid courtesy and politeness on the air, not only this year but in years past. To hear "pse," "gm," or "tu" coming from another operator early in the morning starts the day off right. Be courteous and polite; it pays. However, don't overdo it, some of the RI's are rather touchy about superfluous signals.

Three radio beacons on Lake Michigan, Manitowoc, Point Betsie and South Chicago, have installed a new system of synchronizing the radio beacon signal with the blast of the fog horn. According to skippers, this system makes navigating in a fog much easier. A stop-watch is almost essential to determine the time between the two signals.

Cheerio, comrades. I'm watching the mails for your contributions; let's hear from you. CU next month—73.

~ "CQ" ~ CLASSIFIED ADVERTISING

CQ will accept classified advertising from licensed radio operators and persons employed in allied services at the special rate of five cents per line.

(1) Advertising shall pertain to radio and shall be of interest to professional radio operators.

(2) No display of any character will be accepted, nor can any special typographical arrangement such as all or part capital letters be used which would tend to make one advertisement stand out from the others.

(3) The rate for advertising of a commercial nature is three cents per word.

(4) Remittance in full must accompany copy, closing date for classified advertisements is the first of the month preceding publication date. Provisions of paragraphs (1) and (2) apply to all advertising in this column, regardless of which rate may apply.

BAKELITE PANEL ENGRAVING—Radio and technical; finest workmanship. Established five years. Request price lists. A. L. Woody, Engravers, 19 South Wells Street, Chicago, Ill.

OPERATORS—If you have a bug, mill or relay to sell; if you want to obtain parts for an amateur station, advertise in the Classified Section of **CQ**. Special rates to commercial operators.

CQ CIRCUIT DIAGRAMS—A complete set of five diagrams acceptable for first and second class commercial license examinations. If you are studying for a commercial license examination you cannot afford to be without these diagrams. Each diagram is complete, every part numbered and described. The complete set costs only 75 cents. Order yours today from **CQ**.

WANTED—Copies of all back issues of **CQ**. Our supply of the March, April, May, June and July numbers is completely exhausted. Will pay 15 cents for copies in good condition. MRR, care **CQ**.

WANTED AMATEURS to practice code at home; nothing to pay. Also buy good, cheap receiving set. Write: F. Parkinson, 734 Towne Ave., Los Angeles, Calif.

The "Leviathan's Tonnage

The controversy as to which is the largest ship in the world is now ended. The "Leviathan" has been officially remeasured, and it is revealed that her displacement has been reduced by about 10,000 tons, so that her tonnage is now not only smaller than the White Star liner "Majestic" (56,621 tons gross), but also smaller than the Cunard liner "Berengaria" (52,226 tons gross).—The Signal, London.

KMMJ, Clay Center, Nebraska, is anxious to receive reports from marine operators regarding the strength of its signals at distant points. This station, which operates on 740 kc., charge of Carl R. Swanson, chief engineer, who is assisted by Roger H. Hertel.

Gilson Willets, Old Timer



Gilson VanderVeer Willets was born in New York City and claims to have learned the code (Morse) before he was ten years old. After graduating from the New York Military Academy, Willets set up a one Kw station in Yonkers, N. Y. It was hooked up to a 200-foot flat-top antenna 125 feet high, without a helix. The straight gap fed directly to the aerial. This station, using the call GW, was so broad that it annoyed everybody within range.

Later, GW became licensed as 2WQ and as such continued to mess up the eastern ether at a time when WHB was the New York station.

In 1915, Willets exchanged his ham license for a commercial ticket and sailed to sea as junior on the S.S. *El Oriente*.

From this small beginning, Willets passed on and up. KVK, KEG, KEC, KVL and a score of other American Marconi vessels passed their brass keys under his hamlike fist. (He is six foot 3 inches tall and weighs 227 pounds.)

Then he switched over to the National Electric Signalling Co. and operated on the KX boats. He claims to have pounded brass on every one of them from The Priscilla to the Chester W. Chapin.

From these "deep sea" runs, Willets graduated to the TRT service as operator on United Fruit vessels, KMI and KLF, etc.

From the Unifruitco he went back to Marconi, thence to service with the British Marconi outfit that placed him on XBB for service in the tropics.

As time went by, Willets passed through a gauntlet of adventure and romance that took him all over the world as operator, soldier, hobo and T.T.T. (typical tropical tramp). Eventually he ended up as a technical instructor in Camp Martin, Tulane University, New Orleans.

After the war, he went back to sea with the USSB, following which he spent one

year in the hospital. Then he returned to the KX boats.

He next became manager of WCI, Newport, R. I., at which station he "died," according to the newspapers. However, he popped up again in New York City as a special investigator for the Postal Telegraph Co.

Later he migrated to Detroit, then Toledo. In Cincinnati he became principal of a railroad telegraph school. Later he organized and directed the world's first department store radio department for The May Company, in St. Louis. Following this, he established his own company in St. Louis.

When this failed, the governor brought him to Jefferson City, where he became "Radio Engineer for the State of Missouri," holding the first state political radio position in history. In this capacity, he established WOS.

It was here that someone gave him the nickname, "Radio Rex," which has followed him ever since. When he became popular as an announcer after one year at WOS, he went to Davenport, where he remained for two years at WOC. Then Hugo Gernsback lured him to New York City. Here, Willets designed and built WRNY, atop the Roosevelt Hotel, of which station he became general manager.

A year at WRNY and his feet itched. He worked as an efficiency expert for a chain of music stores and then left for the South, where he re-built WDBO, at Rollins College, Winter Park, Fla. Six months as manager here and he moved again.

There followed months of travel around the country and then a job with the Independent Wireless Telegraph Company aboard KUPJ, an inter-coastal lumber carrier.

On November 1, 1926, Willets decided that his life as a radio man would never lead to fame and fortune. Accordingly, he quit his ship determined to settle down and become an author! His friends laughed and shook their heads knowingly.

His first job ashore was janitor for a radio store in San Francisco. From this he jumped to General Manager of KFWL. After several months' service, during which he saved his money and spent his spare time writing stories, he resigned.

One last fling at sea aboard the Yale and Harvard (WRY and WRH) and he resigned forever from radio work, having seen service in every conceivable branch of the business. Eight months after making his resolution to quit radio, he made a further resolution never again to work for a salary. He never has.

"I SAW YOUR AD. IN CQ." Tell this to our advertisers—it helps all of us.

**Through the Courtesy of a Number of Leading Radio Stores,
CQ Has Been Placed on Sale in the Following Cities:**

SEATTLE—Wedel & Co.,*

520 Second Ave.

SPOKANE, Wn.—Spokane Radio Co., Inc.,

528 First Ave.

PORTLAND, Ore.—Wedel & Co.,*

443 Washington St.

SAN FRANCISCO—Warner Bros. Radio Co.,

428 Market St.

I. S. Cohen's Sons, Ltd.,

1025 Market St.

Offenbach Electric Co.,

1452 Market St.

LOS ANGELES—Radio Manufacturers Supply Co.,*

1000 So. Broadway

SAN PEDRO, Cal.—H. I. Corning & Co.,

305 Avalon Blvd. (Wilmington)

BOSTON, Mass.—Ben's Tremont Electric Supply Co.,

228 Tremont St.

Ben's Radio Shop,

70 Stuart St.

ALBANY, N. Y.—Uncle Dave's Radio Shack,

115 No. Pearl St.

NEW YORK CITY—Blan, The Radio Man,*

89 Cortlandt St.

PHILADELPHIA—M. & H. Sporting Goods Co.,

512 Market St.

INDIANAPOLIS, Ind.—Kruise Radio Inc.,

29 West Ohio St.

MILWAUKEE, Wis.—Radio Parts Co., Inc.,

313 West State St.

CHICAGO—Chicago Radio Apparatus Co.

315 South Dearborn St.

Purchase your radio equipment from these concerns and mention
CQ—it helps all of us.

*CQ Circuit Diagrams on sale in stores marked with asterisk.

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has promoted the more experienced Morse Land Line and Radio
Telegraphers to the advanced positions of "Wire Chief" and "Circuit
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While appraising YOUR FUTURE, you may find interest in
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BALTIMORE, MD.

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OBTAIN IMPROVED CONDITIONS
RAISE THE STANDARDS OF YOUR
PROFESSION.

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The C. R. P. A. is a NATIONAL Association, OF, BY and FOR
Commercial Radiomen, sponsored by CQ.

Founded by 100 experienced Commercial Operators and Technicians

The C. R. P. A. is an organization for ALL licensed Commercial Radiomen,
including Airways, Broadcast, Coast Station, High-Power, Marine
and Point-to-point Operators, Technicians and Repairmen.

If YOU want to help improve conditions for yourself and your brother
operators, it will pay you to join the C.R.P.A. Write for information TO-
DAY.

Executive Secretary, C.R.P.A., 1725 Bedford Road,
San Marino, California.

I wish to become a member of the C.R.P.A. Please send me a
membership petition.

Name.....

Address.....

CQ-9



Are YOU A FIRST CLASS RADIO OPERATOR?

Can YOU make a PERFECT copy of
WNU press with a pencil or mill?

Can YOU cut a mimeograph stencil directly from WNU, WHD or KUP press
without having to recopy?

Can YOU copy press 3 to 5 words behind without breaking? Can YOU count
checks in your head and give the station you are working your "OK" the instant he
has finished transmitting? Can YOU send PERFECT code groups at a speed of 30
wpm with a bug or hand key?

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If YOU want to become a REAL operator it will pay you to write to us, outlin-
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Room 530, Y.M.C.A. Building, 715 So. Hope St.
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Read Dr. Lee de Forest's account of the first American commercial stations and operators, appearing serially in CQ. Many other interesting departments and features.

I enclose \$1.50 for one year's subscription to CQ. Please
start with the.....issue.

Name.....

Address to which CQ should be sent.....

Station.....

(Los Angeles Radio Show Edition—CQ October)