

MARCONI SERVICE NEWS

Volume 2



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By and for Marconi Employees



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OUR PRESIDENT

The place of honor this month is embellished by the portrait of the Hon. John W. Griggs, President of the Marconi Wireless Telegraph Company of America, a leader of men. He was born across the water—in New Jersey, and was educated for the legal profession, becoming early in life a member of the bar in his native state and in New York, and later was admitted to practice before the Supreme Court of the United States. For eight years he was a prominent legislator, becoming Governor of New Jersey in 1895. Possessing unusual mental gifts, he developed keen perceptions, untiring energy and an unlimited capacity for work which attracted the attention of President McKinley who made him Attorney General. He remained in the cabinet until 1901 and was one of the president's chief councillors during the Spanish war, the Philippine insurrection and the Boxer rebellion, arguing many important cases for the government in the Supreme Court. As councillor and advocate he displayed marked sagacity and tactfulness and a judicial mind which placed him in the front rank of American statesmen, which was recognized by his appointment as a member of the Hague Court of International Arbitration. Later he became a director of our company and its president in 1905. He is a gifted and forceful orator, a wise financier and administrator, under whose sane and sagacious leadership the Marconi Company has built up a sound foundation on which a structure is growing which will become a lasting power for good on sea and land and under its banner we are all proud to be enrolled.

FACTORY NOTES WE WANT A FLAG!

By R. H. Langley

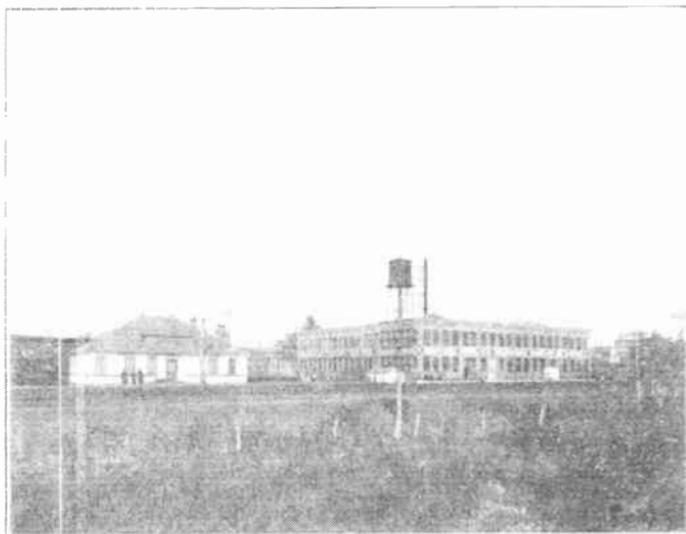
Old Uncle Sam has gone to war,
We're going to show the world
That right is sure to conquer where
Old Glory is unfurled.

In every city, every town,
Front public buildings high,
On factories and railroad shops
Our banner greets the sky.

We want a flag pole and a flag!
We want them right away.
We want to have our colors up
At sunrise every day.

We want the folks that pass our shop
To know we're loyal too,
So let us all chip in a dime
I've put mine in, will you?

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Things at the Factory certainly have been humming. The second shift has been put on and is well under way and now Mr. Hayes has started the third shift which will make the factory run continuously, with 365 men on the rolls.

Some big orders have been filled lately and with the quantity of war orders now rolling in, keeps our Chief, Mr. Stein, and his inexhaustable supply of tireless energy on the job at all times. Speaking of our future plans, says Mr. Stein, reminds him of the story of the darky who had to pass thru a graveyard on his way home. Suddenly he noticed a figure in white standing close by; he quickened his pace, but the figure still remained beside him. Soon the trees were fairly whizzing by when the darky dropped down exhausted on a bench. The ghost came up and sat beside him. "We sure have been going some" said the ghost, "Yes sur man" said the darky, "But that's nuffin to what we's guan when I'se gits my bref".

And of course you know Downing has been made Chief Draughtsman and needless to say, made good on the job from the start; and after a few changes in the system has his staff of draughtsmen breezing thru the most difficult tasks.

And looking across the railing we see Mr. Walter, our Cost Accountant,

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surrounded with his bevy of pretty girls. In fact our Accounting Department reminds one of a fruit grove with so many peaches.

Our Winding Room is the scene of a continuous race, between the girls on the day shift and the boys on the night shift, to see who turns out the largest number of coils; but the girls seem to have the lead.

Down in the Test Room, Howard, who has charge of the Day, and Guild of the Night shift have been busy as bees with their men.

The closely guarded Plating Room, with the newly discovered process of covering the condenser jars, has been doing very creditable work.

And going across to the Laboratory, we see the able staff of engineers composed of Farrand, Langley, Barth, Woodhull, McKenzie, Brockman, and Steiner, who is the pretty stenographer. Mr. Steiner was sent there so as not to distract the engineers from their deep thoughts. And of course Mr. Shoemaker is still there and bigger than ever—I believe 195 lbs. now. Since Mr. Stein has made his headquarters in the Main office, as 'Big Chief' of the Factory, Farrand has taken Mr. Stein's desk in the Laboratory; and with the new work going on the place is very private; but after a little key hole work the stork says Farrand is the father of a new and shining little aeroplane set, which has the power of a full grown man, and he hopes it will be president soon; while Doc, Langley became the father of a shapely, bouncing submarine set. The small size and weight of the infant pleased the Doc. very much and the Testers say it has a greater punch than many of its bigger brothers, and a very bright career is hoped for it.

They say in the Spring a young man's fancy lightly turns to thought-of love; but here it seems to turn to "Fords". Guild calls his touring car an Aeroplane chaser, while Langley calls his a sub chaser and Johnson's which should be called a runabout is the Chicken chaser. Mr. Stein decided to get a car and told Downing to order it for him. So Downing called up and said: "Send me one of your Complex Autos without an engine." "Why you can't make that car go," came back the surprising voice at the other end of the wire. "Oh! that's all right," said Downing, "Put Mr. Stein behind anything, and he will make it go."

TO OPERATORS

The book of General Orders has been revised and will hereafter be known as Traffic Rules and Regulations. Please turn in your copy of General Orders to your Superintendent and receive in exchange a copy of the new edition. Operators assigned to ships which do not call at the port where their Superintendent is located, may make the exchange by mail, taking care to place their name and address on wrapper.

EYEBALL OR HIGHBALL

An old Scotsman was threatened with blindness if he did not give up drinking.

"Now, McTavish," said the doctor, "it's like this: You've either to stop the whiskey or lose your eyesight, and you must choose."

"Ay, weel, doctor," said McTavish, "I'm an auld man noo, an' I was thinkin' I ha'e seen aboot everything worth seein'."—Tit-Bits.

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ACTIVITIES OF THE EASTERN DIVISION by E. T. E.

The rapid advancement of the Marconi Company in the commercial field has obscured the vision of many people to the development of the company as an organization. The expansion of the various departments of the company has in the rush of things been hidden from view. Only recently, however, an informative article on our Aldene factory did appear in *The Wireless Age*. What follows here is a description of a department of the company entirely different in its functions from the manufacturing department and which affords an illustration of a branch of our many-sided activities that is picturesque and peculiar in our field.

When the Operating Department was organized it was indeed modest in size. The company in the first years following its organization controlled but few American vessels, its interests lying chiefly in the erection and operation of shore stations. But with the recognition by steamship owners of the utility of wireless installations on vessels, the number of ship stations operated by the company slowly increased, and a sudden impetus was given to the gradual expanding of the Marconi system when in April, 1912, upon the acquisition of the assets of the United Wireless Company, its entire organization, including about 10 shore stations and 250 ship stations on the Atlantic and Gulf Coasts was absorbed into the Marconi system.

Thus from a comparatively insignificant showing so far as the number of ship stations controlled was concerned, the company suddenly extended the breadth of its system. Of the ships operating on the Atlantic Coast taken over from the United

Company, by far the great majority made New York their home port of call, and thus to the Eastern Division fell the none too easy task of controlling the radio operation of these ships.

Shortly after the control of the United Company's vessels passed into the hands of the Marconi Company, the government decided upon a radical change in manning ships with operators. Hitherto passenger vessels had been required to carry only one operator, but by laws enacted early in 1912, all vessels carrying passengers or over 50 of crew, are required to carry, as members of the crew, two radio operators, thus providing for a continuous watch.

What such a drastic change meant to our company may easily be imagined. Confronted suddenly with the necessity of practically doubling its staff of operators, it had to turn to the radio amateur and to the wire telegraphist untrained in the art, to fill the positions created by law. Although several months' time was allowed between enactment of the law and the date it was to take effect, the company could afford to lose no time in turning its energies to training and fitting for sea duty the recruits drawn into the service.

And organization told! Almost from the first day following the announcement of the new law, the company began the work of making up the required complements of two operators on each passenger steamer. As fast as each man completed a course of instruction in the Marconi School, and had passed rigid examinations to demonstrate his ability as an operator, he was assigned to duty.

So smoothly and so well was the problem of training and assigning assistant operators handled, that on the day the law took effect every ship coming under its provisions carried its required complement of oper-

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ators. Every vessel kept to its schedule. Not a ship was delayed a single hour. It was a triumph for the company.

The expansion of the company's ship service by no means ceased with the acquisition of the stations of the United Company. The awakening of steamship companies to the live business need of keeping in touch with their vessels at sea has led to the equipment of more and more cargo steamers. Steadily has the Eastern Division grown until now it can boast of some 275 vessels under its supervision, with about 400 operators on its staff. The installation of equipment on vessels continues to keep an even pace with the hulling of American merchant ships.

Viewed from the human interest side, our Elm Street office presents a picture of a commercial office transformed by its bustling activity into a fair presentation of a busy stock exchange floor.

At Elm Street Office probably more operators of the various affiliated Marconi Companies report than at any other Marconi office in the world. The Englishman of the British Company, the Frenchman, the Dutchman, the Dane, the Swede, the Norwegian, the Belgian, and the Spaniard of the Belgian Company, the Italian of the Italian Agency, the Brazilian, the Portuguese, and the Japanese of the Brazilian Agency, operators of all these nationalities pay an official call at the Elm Street Office upon arrival at New York each trip. What a cosmopolitan picture they make as they await their turn to sign up in the registry book, bowing, smiling, gesticulating or conversing among themselves, they provide a study in interesting and contrasting facial characteristics.

What ingenuity must be brought in to play to converse with a Portuguese or Dutch operator! Many are on their

first visit to these shores, and their limited command of English is perplexing and sometimes troublesome. Truly, Elm Street Office offers a fertile field of practice for the ambitious linguist. Hardly a day passes that the ear is not assailed by the rapid-fire staccato shout of the Italian, or pleasantly greeted by the polished accents of the Englishman.

And then our own American operators! Picture the hearty greetings of two long-separated chums. Imagine the lively repartee of the "Static room" wits on a Saturday sailing morning when they find themselves the gay center of a particularly large and appreciative audience. What heated argument over a certain well-remembered happening at sea; And what a babel of noise it all makes.

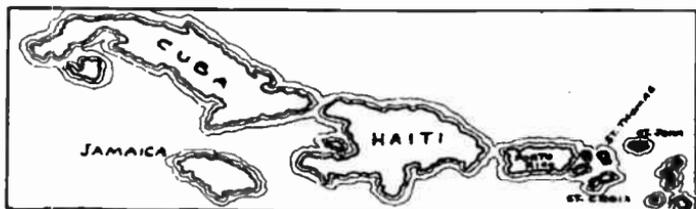
The brisk atmosphere that Elm Street Office naturally assumes under these conditions surrounds the operators and office staff with an air of tingling anticipation. The hurry and rush of assignments, the quick dispatch of operators to catch steamers before their departure, lends a dramatic interest which keeps every one on the alert; and not until the noon hour when the ships sail, is the ordinary routine restored.

MORE WEDDING BELLS

Married—At Grace Church, New York, April 2nd, Mr. Charles J. Ross, Comptroller, to Miss Augusta Cecilia Weber, daughter of the late Gustave Weber, of Brooklyn. After a short trip, they will make their home at Bay Shore, L. I.

At New York, March 17th, Mr. Herbert M. Short, American representative of the English Marconi Company, to Miss Jenoise Brown, of Oshkosh.

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THE VIRGIN ISLANDS

By H. Chadwick

The islands which were formerly known as the Danish West Indies are now the property of the United States of America, having been purchased for the sum of \$25,000,000. These islands are next door to that American Gem of the Antilles, Porto Rico, and together form a most enviable group, situated on one of the greatest high-ways of the World's trade.

By virtue of their close proximity to the Panama Canal, they are bound to grow both in commercial and strategic importance, and, perhaps sooner than is generally expected, prove that the price paid for them is money well spent.

There are three main islands, namely St. Thomas, St. John and St. Croix, with a total area of 138 square miles, and a population of about 37,000. The first named is noted for its fine natural harbor on which stands the town of Charlotte Amalie. This is the main commercial center of the group. The chief industry is the manufacture of Bay Rum, well known to all who use a razor, and particularly well known to some of our operators. St. Thomas is also an important coaling station for steamers in the South American trade and in this direction will be of great value to the U. S. Navy.

The island of St. John lies a short distance to the East of St. Thomas and the only means of communication is by sloop, usually about once a week. It has no steamer service and no cable connection.

St. Croix, the largest of the group, is a beautiful, fertile island, which produces much sugar cane and boasts of having one of the largest sugar factories in the West Indies. There are two towns on this island, Christiansted and Fredericksted, both unfortunately hampered by the absence of natural harbor facilities, and this has certainly deferred the development of the island.

Both St. Thomas and St. Croix are connected to the United States by means of cables, which however are not direct, being via Porto Rico and Jamaica or via Porto Rico and Hayti, the single cable joining both islands giving either island an option of routes.

The present cable rates from New York to St. Thomas and St. Croix range from 50 c. to \$1.50 per word, according to the route used. Right here we see the possibilities of a Direct Commercial Wireless service from the United States, to reduce these exorbitant charges, and thus assist in building up the trade relations of the islands, there being no greater obstacle to the development of any country than excessive cable rates.

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HONOLULU

Here we have an office centrally located, well arranged and spacious. Manager Hawk is assisted by an efficient and enthusiastic staff, and handles a large traffic with neatness and despatch. A Wheatstone circuit is operated direct to the coast, and the Japanese traffic is showing a healthy growth. For the convenience of the government a special land line circuit has been installed connecting with the Pearl Harbor Naval station, and the Army headquarters in the city. The Chinese messengers are neatly uniformed and use bicycles.



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ARTHUR A. ISBELL
DIVISION ENGINEER, PACIFIC
COAST DIVISION

THE subject of this sketch is a native of the Old Bay State, where he learned telegraphy as a boy, and served a term as operator.

He early branched out in the electrical contracting business and shortly drifted into wireless as General Manager of the original DeForest Company. Later he served the National Electric Signaling Company as Construction Engineer, and had to do with original installations at Brant Rock, Massachusetts, and its twin station at Machrihanish, Scotland. In November, 1906, he joined the Massie Company, equipped the "President" at Camden, and went around in her

to Nome, this being the first ship equipped with radio on the Pacific. He returned to San Francisco as Manager of the Pacific Division for the Massie Company.

Mr. Isbell's next venture took him to Hawaii for the Wireless Telegraph Company, Ltd., where he designed and built a 10-k.w. station at Kahuku, establishing the first radio communication between Hawaii and the Coast.

He then entered the service of the United Wireless Telegraph Company at New Orleans, as Division Superintendent, remaining about two years, after which he visited China, Japan, the Philippines and New Zealand. At Wellington he sold to and erected for the Government, on the Post Office Building, the first station in that colony.

He returned home around the world, via Suez, a three months' trip, landing in San Francisco as Division Manager for the United Wireless Company. The Marconi Company took him over as Construction Engineer and shipped him off to Alaska, where he built several stations.

His next assignment was at Engineer in Charge of the Bolinas station, in 1915, from which he has just graduated to the position of Division Engineer for the Pacific Coast Division, with headquarters at San Francisco.

Mr. Isbell has a wide circle of friends, due to his genial personality, and, his qualifications, as a radio engineer, have kept him in the limelight, and earned him continual advancement and success.

The man who preaches that nothing is impossible would even eat an onion and try to lie out of it.

The sure things demonstrate the uncertainties of life.

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WAR PLANS

The government has availed itself of the offer of the Marconi Company placing its staff and stations at its service, and has taken over for the period of the war, not only the Marconi stations but all other radio stations for military purposes. The eligible operators will be enrolled in the government service. Stations not required will be closed. The trans-Pacific stations will continue handling commercial traffic, but under government supervision. No ship traffic will be permitted on the Atlantic and Gulf coasts and the Great Lakes excepting for government, but it will continue for the present on the Pacific. Transatlantic traffic via Glace Bay will not be disturbed.

The Director of Naval Communications at Washington will have charge of stations operated by government. Enrollments will be made by Commandants of Naval districts.

MARCONI WIRELESS SCHOOL OPENED AT SAN FRANCISCO

To remedy an imminent shortage of wireless operators, the Marconi Wireless Telegraph Company of America has opened a wireless school in the new Call building, and will train men for the wireless service of the army and navy and also for private operators.

The school is equipped with the latest wireless apparatus as used in the army and navy, and expert operators will be turned out in from three to six months. A nominal charge will be made to cover operating expenses.

The school has been installed by T. M. Stevens, marine superintendent, and W. A. Winterbottom, division superintendent of the Marconi Company.

A CENTURY RUN 100 ROUND TRIPS ON ONE SHIP

If there is anything about the boat trip from New Orleans to New York you'd like to know the man to ask is W. S. Fitzpatrick.

He has made the round trip exactly 100 times, and he hasn't missed one trip for two and a quarter years. The hundredth trip ended here Monday evening. There are only three harbors between Portland, Me., and Tampico, Mexico, into which Mr. Fitzpatrick has not gone. These are Tampa, Mobile and Port Arthur.

Mr. Fitzpatrick is chief wireless operator on the steamer Momus. He is a clean-cut, upstanding young man with more gifts than are required to operate a wireless.

He is an editor, for one thing. That interesting little newspaper that passengers on the Momus fairly eat up when it is delivered to them daily is put out by the head wireless operator. The paper is patterned after a regular newspaper, and has a real newspaper flavor to it.

Mr. Fitzpatrick first became wireless operator for the Momus in 1910. After working there three years he was transferred to land as traffic inspector for the Marconi Wireless Company. This position was abandoned in 1914, and Mr. Fitzpatrick returned to his old job on the Momus. He is, by the way, one of the three American citizens successful in obtaining a British government wireless license.

"Wirelessing" is not an adventure-some job. During his career the only time there was some real excitement was when he received an "S.O.S." call off the coast of South America. After traveling 400 miles his boat encountered the distressed vessel and took aboard 300 passengers.

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Maintenance Matters

A Department for Technical Questions With Answers

By P. B. Collison

All employees are invited to direct technical questions to this department

Beginning April 11th, 1917, the newspapers discontinued publishing reports of the daily arrival and departure of ships. The M.R.I. Division therefore must depend upon operators' station reports for information concerning movements of vessels. Because of this, operators must report their arrival and turn in their station reports as quickly as possible.

On all installations equipped with type "A" oscillation transformers having a pivoted secondary, operators, in order to prevent needless interference, are requested to reduce the antenna current by turning the secondary coil at right angles to the primary coil. In order that the antenna current for different values of couplings may be determined, a chart is to be furnished to every station thus equipped. In event such calibration charts have not been supplied, operators are directed to report same to this office immediately. One will be supplied upon receipt of request.

After cleaning the sparking surfaces of quenched gap plates, operators should take the precaution to place the "end plates" at each end of the gap container with the blank faces out. If these blank faces are placed in the center of the gap, damage to the transformer secondary or puncture of the Leyden jars may result.

With the approach of the Summer season ships sailing in the tropics will encounter a humid atmosphere. The moisture resulting therefrom will condense on the insulation of the

transmitter and finally will result in a complete loss of insulating qualities, if it is not wiped off as rapidly as it accumulates. The parts of the panel sets apt to break down are the tubes holding the quenched gap plates, the insulation of the aerial change-over switches and the supports of the jar racks. The only remedy for this leakage is a frequent run-down with an oiled rag. DO NOT SMEAR OIL OR GREASE ON THE "DI-LECTO" INSULATION. A slight amount of oil on the metal work will prevent rust or corrosion, but a clean dry surface on the hard rubber will tend to maintain the insulation.

Bear in mind that oiled surfaces retain heads of moisture. Several pairs of head telephones have been turned in to the Repair Department recently with the head bands covered with a green oily deposit, evidently the accumulation of many weeks. It is hard to understand how an operator can allow such filth to remain. Inspectors frequently report that they find the spare phones to be dusty, rusty and generally unfit for immediate service. Such reports in the future will have serious attention. Spare material of all kinds should be kept ready for any emergency that may arise. Leyden jars must be protected from breakage, gaskets for the quenched gaps free from sawdust, and they should not be wrapped up in cotton waste. The hard rubber insulators and Bradford deck insulator tubes must be laid down and not stood up in a corner, otherwise, they will warp and break.

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For some incomprehensible reason, operators do not take full advantage of the facilities of this Department. Many questions must arise in their minds in the daily round. Judging by the station reports, certain operators lack knowledge of wireless nomenclature. Some do not seem able to distinguish between induction and leakage, commutator and collector rings, poor head phones and worn out batteries (in the detector circuits), that is, if we were to judge their knowledge by the trouble reports sent in. I hope that every operator in the service having difficulty with his equipment will make an effort to query us for the next issue. If all are not answered in one issue, the remainder will be taken up in the one following.

Again it appears necessary to direct the attention of operators to the fact that on all ships the auxiliary storage battery (the 60 cell units) is owned by the Steamship Companies and is under their maintenance. Our operators are not responsible for their upkeep and must make no alterations or changes without first consulting the Chief Engineer of the vessel.

Notes on the Replacing of Evaporation in Accumulators.

The electrolyte in a cell consists of a mixture of sulphuric acid and water. Sulphuric acid does not evaporate, water does. When the level of the electrolyte in a cell becomes low, it is due, under normal conditions, to the evaporation of water, which should be replaced with water only. There being no loss of acid, it is never necessary, during normal service, to add any acid to a battery. Use only distilled or pure drinking water for replacing evaporation. It is necessary that the plates and separators be covered with electrolyte at all times

to a depth of at least one-half an inch. The best time to add water is just before a charge.

During discharge the gravity of the electrolyte becomes lower on account of a portion of the acid in the electrolyte going into and combining with the plates producing the current. Thus at the finish of a charge the gravity of the electrolyte is 100 to 150 points lower than at the beginning. When the battery is recharged, the acid will be returned to the electrolyte.

* * * * *

Every radio station is furnished by the M. R. I. Department with a card showing the adjustments necessary to obtain the standard wave lengths. Operators should familiarize themselves with the necessary changes of inductance and capacity and should bear in mind that the settings shown are the only ones that should be used. If through accident to the aerial or other portion of the transmitters, it is necessary to retune the set for resonance, the original tuning record can be ignored but not otherwise. On a ship that recently arrived in New York every inductance clip was in the wrong position which of course reduced the antenna current and resulted in such poor service as to give rise to serious complaint. If the operator had consulted his tuning record and had placed the clips in the correct position the normal range of the set would have been maintained. Inspectors of the Marconi Company will gladly explain these records to those who do not understand them.

One of our operators called at the M. R. I. Department the other day and seemed surprised to learn that the sixty cell batteries used as auxiliary source of power were of a higher total voltage than the ships line, and did not understand how we were able to charge them at such a voltage. An

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elementary knowledge of charging the circuits will show that these cells are charged in two banks of thirty cells, the two banks being placed in parallel for charging and in series for discharge. Cells must be charged at a voltage somewhat higher than their discharge voltage in order that there will be a sufficient difference in potential to permit a flow of current. Each bank thus charged has an E. M. F. of 65 volts, and the total voltage of all cells connected in series is usually around 125 volts.

• • • • •

An operator recently reported his set to cause severe sparking in the ship's rigging. He believed this to be due to leakage of the deck insulator. It was, however, a simple case of electrostatic induction into stays and other steel rigging near to the lead-in wires. The only remedy is to thoroughly ground the rigging and put a jumper around any breaks in the gap.

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Our inspectors frequently report that operators do not lubricate the bearings of the motor generator properly. These bearings must have regular and careful attention. The oil wells must be kept filled with a good grade of light oil. It is not an easy task to insert a new bearing in a motor at sea, and there would be no occasion for so doing if these bearings had proper care. Once in two months they should be flushed out with kerosene and refilled with clean oil.

The smooth running of motors is assured if operators would clean the slip rings and commutator regularly. Under no circumstances, should oil or grease be employed to obtain a polish. Next to the aerials, the generator is the part in which the expense of repairs runs high. In many cases, such repairs are entirely due to carelessness.



JUNEAU, ALASKA

By C. E. Bence

Juneau, the largest city of Alaska, is also the capitol city of the Territory. It is situated on Gastineau Channel and practically surrounded by high mountains which are for the most part of the year topped with snow. The highest of these peaks is Mount Juneau which is about four thousand feet high. Juneau today is considered the largest gold mining center in the world, having three big low grade mines in operation, the Alaska Gold Mines Co., The Alaska Juneau Company and The Treadwell Mine. Juneau is also in the center of the big salmon canneries of South-eastern Alaska.

The present Juneau Station while not of the latest type is an efficient station. It is situated on a hill beside Mount Juneau about one mile and a half from Juneau. The apparatus is chiefly of old United type, leyden jars are used for condensers and the transformers of United design. The set as it is assembled is approximately 10 k.w. For receiving a type 101 Marconi receiver is used. Juneau Station is the northern terminal of the Marconi Alaskan Circuit and in addition to this is used as a Marine station, clearing ships and also handles the traffic from the two leas-

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ed stations, one at (KDN) Kensington Mines Company and one at (KJA) Jualin Mines Company, thirty-one hundred meters being used on the Alaskan Circuit, and with outlying stations, while 600 meters are used in clearing vessels at sea.

The new Juneau Station now under construction will be of the latest design as regards operating house, towers and apparatus. The operating house is modern in every sense of the word. There will be three rooms, the largest is provided with a concrete floor on which will be set the transmitting apparatus. There are two smaller rooms, one of the receiving room and the other the manager's room. The building is one of the prettiest in Juneau. Only one tower will be required for the antenna. Mount Juneau being the support for the highest end. The tower is of galvanized steel and of the self-supporting type, three hundred feet in height. The upper end of the fourteen wire aerial will be approximately 1,000 feet above sea-level and fastened to the side of the mountain by means of eye-bolts that are cemented in the rock. From the mountain the aerial extends about 1,100 feet down to the top of the tower, which is about 500 feet above sea-level. From the top of the tower the aerial drops about five hundred feet in the form of cages to the operating house. The tower is situated on a hill about 200 feet above the operating house. The six hundred meter aerial will extend from the operating-house to the top of the tower only and will be in the form of a cage. The transmitting set will be of the 10 k.w. quenched panel set, and arranged so the wave length can be varied from 3,000 to 800 meters by the operator without leaving his key. An induction motor will be direct-connected to a generator to furnish power for transmitting, power being sup-

plied to the motor from the City lines.

The station is connected with the City Office by a private telegraph line. The City Office has a private line to the City of Douglas which lies across Gastineau Channel from Juneau. The line also runs to the Treadwell Mine Office, where the Mines Company has a first-class operator to handle their telegraph business.

On cold, clear nights many freakish receptions are recorded. The Marconi Station at Bolinas, Cal. can be heard very well at any time day or night. Honolulu and Japan at any time of night. Nauen, Germany and Sayville have both been heard in Juneau.

THE BIGGEST STACK

The largest stack in the world is located at Great Falls, the industrial and railroad distributing center of Montana. This stack is a part of the smelting plant of the Anaconda Copper Mining Company and is used to carry off the smoke and gases arising from the ore smelting plant below the hill on which this huge stack is built. The smoke passes through several flues into an immense dust chamber which has millions of wires hanging to collect the valuable mineral-charged dust, this chamber being the size of an average business block, after which it enters the flues leading up to the stack. The height of this wonderful piece of masonry is 506 feet, outside diameter at base 78 feet; inside diameter at base 55 feet. From these measurements our readers will see that the Washington monument which is 50 feet square at the base and 20 feet square at the top could be set inside of this chimney without touching any wall and there would still be room enough at any point between it and the wall to drive a span of horses.

MARCONI SERVICE NEWS

TORPEDOED—BUT SAVED

Operator Paul T. Platt of the *Vigilancia* of the *Globe* line, New York for Havre February 28th tells a modest but thrilling tale of his escape with all hands, when his ship was torpedoed and sunk in seven minutes. Here are his own words:—

"At 9:30 p.m. Lands End warned all British merchant vessels as follows: "Submarine reported 49:10 N—08:40 W, at 6 p.m. today." Delivered to Captain. He came to my room a few minutes later and told me that the *Vigilancia* was 14 miles north of position given in this warning. The ship's speed was increased from 11 to 14 knots. I went to sleep that night fully dressed.

"The next day I was in the wireless room between nine and ten o'clock when suddenly there was a clanging crash followed by a shattering, rumbling sound, and accompanied by a heavy shock. The Marconi log book rose up from the operating table and jumped across the room. The lights went dead out within two seconds after the explosion. The water had rushed through the shaft alley and flooded the ship's dynamo. There being no power for the wireless, I searched for and found the wireless log book in the dark cabin (there were no windows), put on my cap and rushed out on deck. I crossed to the port side. By this time everybody was up out of the engine room, and lifeboats 1, 3 and 4 were already in the water. I went forward. My lifeboat, number 2, the forward one on the port side, was still at the rail.

"I reported to the Captain whom I met just back of his cabin, that there was no power as the ship's dynamo was dead. He told me to never mind about the wireless but to go to my own boat and look out for myself. When I reached the rail again, my life

boat was in the water with most of its men in it. I threw the wireless log and a diary hook of my own into the middle of the life boat. I then stepped over the rail and slid down the life line into the boat below. We had been in the water for an hour or two when one of the men handed me my dairy book, soaking wet and falling apart. I never saw the wireless log book again, and do not know what became of it, altho' it landed square in the bottom of the boat.

"The ship sank in seven minutes. When she dove under the water I looked at my watch and it was 5:25 a.m. accurate New York time. The ship time was somewhere about four hours ahead of this. I cannot give it exactly. When the Captain made his affidavit to the American Consul at Plymouth, he said that I reported to him two minutes after the torpedo hit.

"With the sinking of the ship went all my clothing. All I saved was on my back."

Mr. Platt is now at his home suffering from rheumatism caused by exposure. We sincerely hope he will soon completely recover from the effects of his appalling experience in the war zone, and return to duty in as good physical condition as before. In this trying experience, when he was looking death squarely in the face, he exhibited coolness and self command which would do credit to a veteran sea dog. It takes more than one torpedo to feaze a true disciple of Marconi.

Practically all the 25,000 tons of paper manufactured daily in this country is made from wood pulp.

Yesterday is Dead—Forget it.
Tomorrow has not come—don't worry.
Today is here—use it.

MARCONI SERVICE NEWS



MARCONI RUDS

That the interest of the company in its employees extends to their families, even unto the second generation, is evidenced by the smiling face of baby Ruth, the 14 months old darling daughter of her proud parent, Mr. Gus Heisel, of the Commercial department. We will be glad to reproduce here portraits of Marconi infants under 18 months when taken; and at the close of the year, the Editor will award a cup to the one voted to be the best baby, by a committee of envious bachelors and maidens to be selected by the Editor who will act as Chairman.

About the only time you can really size up a man is when he thinks no one is watching him.

Don't jump at conclusions. Many a man has sustained a compound fracture of the reputation that way.



Paul Kast, Cashier of the City office, has resigned to enter other business. William Cockett succeeds him and Charles Sandbach relieves Mr. Cockett as Traffic Instructor at the School of Instruction.

SOUTHERN DIVISION

Constructor Wyble has resigned to accept position with the government. We wish him the best of success.

We understand Construction Engineer Murray has received a commission as Ensign in the Naval Reserve's radio service.

H. J. Sacker of the Essex is on sick leave. J. M. Blake has returned to the service and been assigned to the Essex as senior in place of Sacker.

Junior Operator Hovelsrud of the Gloucester resigned to accept a position with the government. H. W. Davis, a new man in the service, takes Hovelsrud's place on the Gloucester.

Mr. Shallcross, third operator at Cape May Station, has resigned to accept another position. W. Batchelder of Philadelphia district, has been assigned to the vacancy.

W. J. Phillips, third trick operator of Cape Hatteras Station, has resigned, his place being temporarily filled by Johnny Flagg.

Superintendent Chapman recently made an inspection trip, taking in Virginia Beach and Hatteras Stations.

Travelling Inspector L. E. Bell of the Ontario has resigned from our service to go with the Western Union.

MARCONI SERVICE NEWS

K. W. Orcutt has been assigned to the Ontario relieving Bell.

R. W. Rice has been assigned to the E. L. Doheny of the Gulf Division.

F. C. Justice and J. G. Carleton have been assigned to the Howard at Boston as senior and junior, respectively.

L. W. Passano, member of the Maryland Naval Militia, has been called to the colors, and has left our service.

Hubbard McCauley is now in charge of the Somerset.

Constructor Wyble installed a 2 k. w. standard panel set on the James McGee. Percy White has been assigned to the James McGee and is running to Buenos Aires.

Constructor Murray installed a 1-2 k.w. panel set on the new Gulfmaid at Philadelphia.

Constructor Gerson is still busy at Newport News repairing freighters and installing cargo sets. Gerson informs us that he can install eight or ten of these "quarters" on a good day.

W. Q. Ranft has left our service.

J. E. Grostick of the Paraguay has gone to the Great Lakes Division, and Operator Keller has taken his place on the Paraguay.

J. B. Jackson relieved Operator Weikel on the Delaware Sun. Mr. Weikel has gone to Santa Rita.

R. J. Lloyd is now on the Toledo.

Operator Ferris is now on the Santa Maria.

E. P. Hough and H. McKiernan (old timers) have returned to our service, and been assigned to ships in the trans-Atlantic trade. They all come back!

Miss Frey our Stenographer, has declared herself ready at any time, to join the Red Cross as a nurse.

EASTERN DIVISION

Eugene Dynner has transferred to the Nueces after quite a stay on the Trinidadian.

Sam Tennery is on the Pleiades, off on a long voyage.

Charley Manley is junior on the Manchuria.

Chris Noble is running to Cuba on the Santiago.

Anthony Visiconte is senior on the El Occidente.

A. A. Borch is traveling the seas on the Trinidadian.

George Allen is on the Westoil, calling at European ports.

R. H. Poling is temporarily on the Mundale.

C. E. Pfautz, a new man, is on the Campana, bound for Italy. Pfautz formerly served in the navy.

M. Wiesemeyer is on the Platuria. This ship will soon clear Newport News for European ports.

Herbert Crandall and R. R. Jacobi are making things lively on the Maracaibo.

Gilson Willetts has come back to us. He is on the Mexico II.

Dave Kell is on the Maryanne, bound across for the thick of the war zone. The Maryanne is newly equipped.

H. R. Davis and S. W. Knapp are on the Zulia.

Carl Orloff is on the Amazonia. Orloff has just returned from a trip to Europe on the Suruga. He has made quite a few trips across now, but has still to glimpse a submarine.

W. L. Hille is on the one-man ship Margarcia, running to Cuban ports.

Plymton Berryman is junior on the Morro Castle.

Robert Mosher is making a trip to South America on the D. N. Luckenhach.

MARCONI SERVICE NEWS

Matt Bergin and Albert Darlington were assigned to the St. Louis, the first American Line ship to leave New York armed.

Willy Sirkin is on the Arapahoe with Lohmann. Here's someone who can tame Lohmann!

Mike Beckerman is senior on the City of St. Louis.

Claude Levin is on the Iroquois.

J. Davis is junior on the Korona.

Clarence Sturz is on the Caracas with Werker. Werker is one of the best men to work with we know.

G. C. Wilkins has returned to the service after some time spent at home working for an electric light company. Nothing like Marconi after all. Wilkins is on the John D. Archbold.

L. J. LaRue is on the Panuco, a new Ward liner.

W. Pettipas and J. A. Leonard are on the Cherokee. Leonard is a new man.

David Carruthers is junior on the Finland. J. A. Styles is senior.

H. T. Solway is on the St. Paul.

J. J. McLevey and C. W. Wood have left New York on the Byron for South American ports.

Alfred Cresse is with Solway on the St. Paul.

George Draper is back to the Ward Line. George is on the Antilla now.

Charlie Asche is on the Huron.

R. A. Merry has been shifted to the Guiana as senior.

Willis Beltz and J. Martineau are on the Kronland.

Frank Rosenquist and Harry A. Styles are on the Algonquin.

Fred Hall, a graduate of the school, is junior on the Occidenté.

Robert Wagner is on the Texas.

Louis Cohen is on the Seguranca, a one-man ship.

Harold Williams is senior on the El Cid.

Ben Lazarus is on the Alamo.

SPOKES FROM THE HUB

A. A. Grant has been assigned to the Calvin Austin relieving Filson who has joined the naval reserve and is now on active duty at the Boston navy station. The Governor Cobb returned to Boston with Grinnell and Killam, both looking like millionaires who had spent the winter at Palm Beach. We thought Mr. Grinnell would bring home a bride from Key West but presume the high cost of potatoes frightened him. R. G. Philbrook has been assigned to the City of Augusta relieving operator Sayward who has resigned.

C. R. Crosby and R. W. Leason are now attached to the City of Atlanta, vice A. E. Brown and E. B. Colby. Brown has joined the naval reserve and Colby has resigned.

Operator Frost has been assigned to the newly equipped Vigo sailing for parts unknown.

Operator Thevenet was a welcome visitor here when the City of Columbus was transferred to the Boston run relieving the City of Augusta.

Constructor Gardner did a quick job installing an emergency equipment on the Barotse, which arrived one evening and sailed the next day.

GREAT LAKES DIVISION

Mr. A. E. Jackson, Superintendent of Construction, is being kept busy laying out the work of installing equipments on fifteen new boats in this district. Chief Operator E. A. Nicholas and Manager R. N. Keever, of the Detroit Station, just completed the equipments on the Huron, Alpena and Wyandotte, at Wyandotte, Mich. Mr. Jackson and W. H. Jones just completed the installation at the new Alpena Station. Work is being started on two of the Jenkins Steamship Company's boats at Cleveland.

MARCONI SERVICE NEWS

The Ashtabula, with E. I. Deighan as Purser and Operator, went into commission on April 2nd.

The Detroit Station opened on April 2nd, with R. N. Keever as Manager and Willard J. Ferris as night operator.

W. W. Neely is on the Huron temporarily.

D. C. Smith, who recently returned from the Eastern Division, has been assigned to the Alpena.

J. H. Wallace has been assigned to the Wyandotte.

Otto Berg is back on the Maitland No. 1.

Clarence D. Hicster, a new man in the service, has been assigned to the Eastern States.

Ross J. Plai-sted has returned to the Wrecker Favorite.

C. D. Heinlen has been appointed Manager of the Duluth Station.

C. K. Kneale is acting as operator on the Water Works Crib No. 5 at Cleveland.

The Cleveland Station was opened on April 2nd with George Commerford in charge and George Grostick as second.

Manager A. Thomas, of the Chicago Station, has been appointed Assistant Radio Inspector for the Government and will be located at Detroit.

PACIFIC DIVISION

F. W. Harper, operator in charge of the Aztec was transferred together with that vessel to the Eastern Division.

J. M. Chapple of the Alliance is now senior on the Lurline.

A. E. Marr is senior of the City of Seattle.

E. R. Bevitt, a new man, entered our service as junior on the City of Topeka.

R. Teestale temporarily filling the third trick at East San Pedro during the absence of operator B. C. McDonald has returned to the Cabrillo relieving D. Beraldo.

F. A. Werner is acting senior on the Klauath with H. E. Wright as junior.

C. Lindh and F. Wisner are acting senior and junior respectively on the Northern Pacific.

The Ravalli is carrying E. O. Mohl as senior and H. A. Burgess as junior.

The San Juan is well represented with O. Moek as senior and L. A. Fox as junior.

J. E. Johnson has rejoined our service as senior on the Spokane on the Seattle-Alaskan route.

The Santa Rita, formerly equipped with competitive apparatus is again in the fold. She is now equipped with a 2 k.w. 500. E. Diamond is temporarily in charge.

M. Rackov has been assigned to the Steamer Umatilla as junior, vice H. MacGowan.

L. J. Ward is on the Yosemite.

L. G. Ogles has joined the Venezuela as junior.

J. Baxter, after a short illness has resumed duty at the Astoria Marine Station.

R. Short is junior on the Beaver.

The Catania with operator S. S. McKee has been transferred to the Gulf Division. The Minnesota with operators Riese and Belding has been transferred to the Eastern Division.

The Nuuanu is now equipped with an E-2 equipment.

The Louise Nielsen, Norwegian, equipped by the Seattle staff, sailed with operator G. Horne in charge.

H. Jensen has joined the Humboldt as senior.

The Norwegian Steamer Bessa sailed with Operator W. G. Roll in the radio cabin.

MARCONI SERVICE NEWS



MARSHALL

"The Distress Call of the 'Bovine'"

The wind was howling dismally as Walden fought his way up the hill to take the night watch, and he shook his head ominously as he paused ere entering the building, to gaze at the ocean. "Going to be a dirty night" he muttered, and mentally thanked his stars for a soft billet ashore, sat down at the key. It was about 3 a.m. when there reached his ears the deep vibrant note of a ship's siren. A succession of blasts—some long, some short. Yes, that must be it.

Listening intently, he thought he could make out the familiar SOS in long and short blasts. There was no longer room for doubt, but what could he do? A sudden inspiration—Bolinas—the 'phone. "There's a ship in distress off the point—can hear her siren—keep a sharp lookout" he exhorted.

Bolinas strained their ears in vain. But to Walden the sonorous blasts were becoming louder and more frequent.

With the coming of daylight they died down and when the day man appeared he was regaled with a full account of the night's excitement.

"Huh! Ship in distress nothing. There's an old bull tangled up in a fence and his bellowing kept me awake all night. (Collapse of Walden).

BOLINAS

March blew in on us in true lion fashion—some gale, some rain, the power line went dead for 24 hours—you should have seen our Chief Rigger and his good wife, in the absence of our Chinese Chef, cooking ham and eggs for dinner over gasoline torches; tasted just as good as picnic fare, too, after the long wetting on land line "trouble shooting."

The jolly set of Bolinas village and environs, dropped in on us one evening for a surprise dance and cake feast. We like 'em both, what, and the jolly crowd too, Yes.

The predicted happened; our Riddle, dynamo tender, took unto himself a splendid little wife in the person of Miss Ruth Bryant, of Oakland, California. They have taken up their abode in a bungalow in Bolinas, but will move closer if those Marconi bungalows are built as projected.

Our old sea dog, Pete Lenberg, late crack rigger, has left us for a spell to go salmon fishing in the great Northwest.

All-aboard behind our dancing blacks, for a modern charivari dance at the bungalow in Bolinas. The Riddles were at home because we told them to be, and every one had a delightful time; even yet we can taste that pop-corn after dancing.

Our long and lanky, Ritter, has left us to take up his new duties as Shift

MARCONI SERVICE NEWS

Engineer at Kahuku. No more will we hear that raucous voice whisper "Shut up, I want to talk" except in our memories. Kahuku, when you put in that wireless telephone, let some one else do the talking, please, or they'll hear you clear to Paris! Our best wishes attend you, just the same.

Mr. and Mrs. A. W. DeSart and two fine children arrived amongst us and we are glad. This station was never graced with children before, and they mingle well with the violets and wild iris. We haven't discovered whether Mrs. DeSart allows them much candy or no, but we are on our way to find out. Welcome, we say heartily, all of you.

Shift Engineer Gratt returned to duty today, after a pleasant vacation spent at his home in Berkley, AND ELSEWHERE.

KAHUKU

The Kahuku staff, was recently invited by our neighbors, to attend a luau. It happened that the night was one of our heaviest rains, but as the luau was to be held under canvass, the rain did not prevent us from attending.

You wonder what a luau is. Well, in some parts of the United States they would call it a barbecue, but in Hawaii it is a luau.

The guests, old, young, natives and whites arrived about five and we sat down to a fine supper of roast pork, (roasted on a spit by an open fire,) sweet potatoes, hot biscuits and coffee. After an hour or so of smoking and talking, the tables were cleared away and in addition to native music and dancing, we all did our bit in the way of entertainment with stories and songs. By this time we had quite forgotten the rain and when it came time to go home we all felt that we had had a genuine good time. And

now you know what a luau is.

Recent staff changes: Mr. Allen has joined us from the Honolulu city office and Mr. Ritter has joined us as Shift Engineer from Bolinas.

While grinding a commutator Engineer Eklund met with a painful accident, severely injuring his hand.

Joe Lynch recently purchased Gompfs' motorcycle and can be seen speeding along the highway competing for the record time to Honolulu, at present claimed by Gompf, who says he made it in one hour and fifteen minutes. There seems to be some doubt as to the correctness of this time, especially as Gompf carries an Ingersoll and has a new EX.

Harvey recently turned in his Indian for a new EX, and can now start off without making numerous SSSSSSSSSSS on the road. Our motor vehicle squad now comprises four motorcycles and two automobiles. It is thought Ritter will soon get one as Anderson took him out to show how nicely it worked, compared to the Breakswell owned by Stepp.

A woman haters club was recently organized. Allen is the only member in good standing although he has been seen making mysterious trips to Kahuku.

Mr. Philbrick Acting Engineer, is quite lonesome out here and would like to hear from all the blue eyed stenographers in the company's employ.

The beach has been deserted owing to the cold weather which now prevails but it is hoped that it will soon be warm so that we may once more enjoy the good swimming down in dear Hawaii.

We now have dominoes in the hotel lobby and Cannon Ball Baker has already shown his skill at the game.

Lynch and Eklund have joined the naval reserve so that they might use the retainer money for gas.

MARCONI WIRELESS TELEGRAPH CO.

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