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THE MARCONIGRAPH

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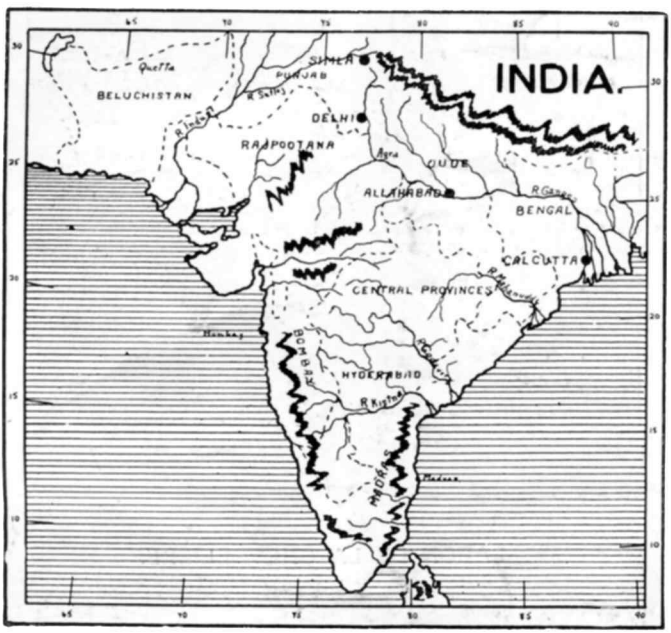
Wireless Telegraphy in India

FOR some years past the Indian Government have been considering the question of erecting a network of Wireless Telegraph Stations in order to link up the principal towns and military garrisons of the vast area under its control.

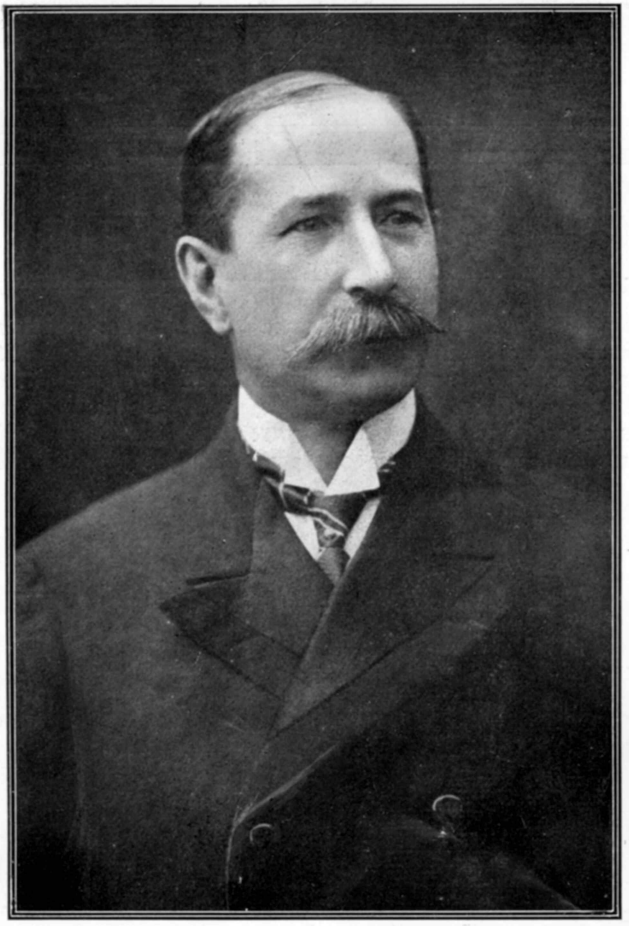
The first active development of this scheme took place in the beginning of this year when the Marconi Wireless Telegraph Company, Limited, received an important order from the Indian Government for the erection of four stations for the purpose of connecting Simla, Delhi, Allahabad and Calcutta, and we have reason to believe that this preliminary move is only the first step towards connecting up other important cities as well as certain of the military garrisons on the North West Frontier, where wireless telegraphy is likely to play an important part from the strategical point of view, by offering a rapid and reliable means of communication between the long chain of outposts extending from Quetta to Peshawur, and where at present considerable difficulties exist in maintaining any system of land line communication, owing to the extremely mountainous nature of the country and the unruly character of its inhabitants.



A map showing the positions of the Marconi Stations now in course of erection.

The work of erection of the first four stations above mentioned is being actively carried out at the present moment under

(Continued on page 4.)



BARON DE LA CHEVRELIÈRE.

Baron de la Chevrelière

President and Managing Director of La Compagnie Française Maritime et Coloniale de Télégraphie sans Fil.

MONSIEUR LE BARON DE LA CHEVRELIERE, whose photograph we reproduce this month, has devoted himself to wireless telegraphy from the very outset of the practical application of this new science. Having immediately understood its brilliant future and promptly recognized the incontestable superiority of M. Marconi's invention, he resolved to interest himself actively with its development.

In the year 1901, he joined the Board of Directors of the (Belgian) Compagnie de Télégraphie sans Fil. Subsequently he recommended the formation of an affiliated Marconi Company in France, and on the 4th June, 1903, the "Compagnie Française Maritime et Coloniale de Télégraphie sans Fil" was founded. M. Marconi himself joined the Board, which was composed of men of high position and influence, including M. Charles Roux, who is, *inter alia*, President of the Comité Central des Armateurs de France; M. Dal Piaz, Directeur-Général de la Compagnie Générale Transatlantique, and M. Musnier, Administrateur de la Compagnie des Messageries Maritimes. M. le Baron de la Chevrelière was elected President and Managing Director of the Company, which offices he still holds, devoting much of his time to the conduct of the Company's business.

To-day all the principal passenger vessels flying the French flag are fitted with the Marconi System, and the shipowners express their satisfaction with the great utility of the wireless service and the efficient manner in which it is conducted.

The Company suffered for some years from the antagonism of the French Government, but recently this disadvantage has been removed. A contract of an important nature has been entered into between the French Government and the Marconi Companies, creating between them a complete understanding, assuring the most cordial relations in the future.

M. le Baron de la Chevrelière was at one time a member of the French Parliament; he is Mayor of his Commune and general counsellor of his Department.

He was formerly an Officer of the Dragoons. Having retired from active service, he is now a Major of the Reserves and an Officer of the State, holding the high distinction of the Military Legion d'Honneur. He is an accomplished sportsman, and a member of the French Jockey Club.

the supervision of the Company's Engineer, Lieut. R. R. Cooke, R.N. (ret.)

The first station is being erected at Simla, the famous summer resort of the Viceroy, and seat of the Government during the hot weather months. It is situated a few miles south of the River Sutlej, on a spur of the Himalayas, at an elevation of about seven thousand feet above sea level.

The Simla Station consists of a Standard 5 K.W. installation, and will be furnished with two directional type aerials, 1,000 feet in length, and one short receiving aerial of 320 feet in length. The antenna will be supported by three masts of the sectional steel type, the mainmast being 260 feet in height, with two extension masts of 110 feet above ground level. Power will be supplied by a slow speed oil engine, which has been specially selected for work at high altitudes.

The Simla Station will connect direct with the Delhi Station, and from thence to Allahabad, and finally to Calcutta.

The City of Delhi is one of the great industrial, banking and commercial centres of the Indian Empire, and will be specially remembered as the scene of the terrible massacre of Europeans which took place during the great Indian Mutiny of 1857, in which same year it was afterwards stormed and retaken by a very small British and Native Force after a memorable siege.

The Wireless Station at Delhi is to be of a more powerful character than that at Simla, and is being furnished with the Company's Standard 30 K.W. apparatus. The antenna will be of the directional type, consisting of two inverted L-shaped aerials, each 800 ft. in length, together with one receiving aerial for short waves. The whole aerial system is to be supported by six sectional steel masts, 260 ft. in height, whilst the necessary power supply will be obtained from the local mains.

At Allahabad, the capital of the United Provinces of Agra and Oudh, situated at the junction of the Ganges and Jumna, and one of the chief educational centres of the Empire, and finally at Calcutta, the capital of British India and the official seat of the Government, two 30 K.W. Stations are to be erected, one at each place, and similar in all respects to the Delhi installation, with the one exception, however, that in both the latter cases the stations will be self-contained, the power being supplied from a slow-speed horizontal type oil engine.

All the four stations above mentioned will be furnished with their own batteries of accumulators, whilst the receiving apparatus is of the very latest type, comprising the Company's well-known oscillation valve receiver—an instrument which may justly be said to be the *dernier mot* in so far as concerns this type of apparatus.

Slangkop Station.

May 10th saw the opening of the new Marconi Station at Slangkop, Cape Town, which has been erected by the Company to the order of the Union Government of South Africa.

Palm Beach Station transferred to Key West, Florida.

The Marconi Station at Palm Beach was recently transferred to Key West, Florida, where the wave length in use is 1,250 metres. The call letters—M B S—are the same as were used for Palm Beach Station.

Cocos Island Wireless Station.

That great commercial benefits have been derived since the opening of the Wireless station at Cocos Keeling Island was demonstrated when a passenger bound for London on the Orient steamer "Orsova," which had left Fremantle, Australia, on March 14th, sent a message via the Cocos Island Wireless Station to the *Perth Sunday Times*, when the ship was four days or 1,700 miles out from Fremantle.

Movements of Engineers.

Mr. S. Kos is returning to England from the Cape, where he has been in charge of the erection of Slangkop Station.

Mr. Rackstraw is on his way home from Singapore, where he has been in charge of fitting Marconi Apparatus on vessels for the Eastern Extension Telegraph Company, Ltd.

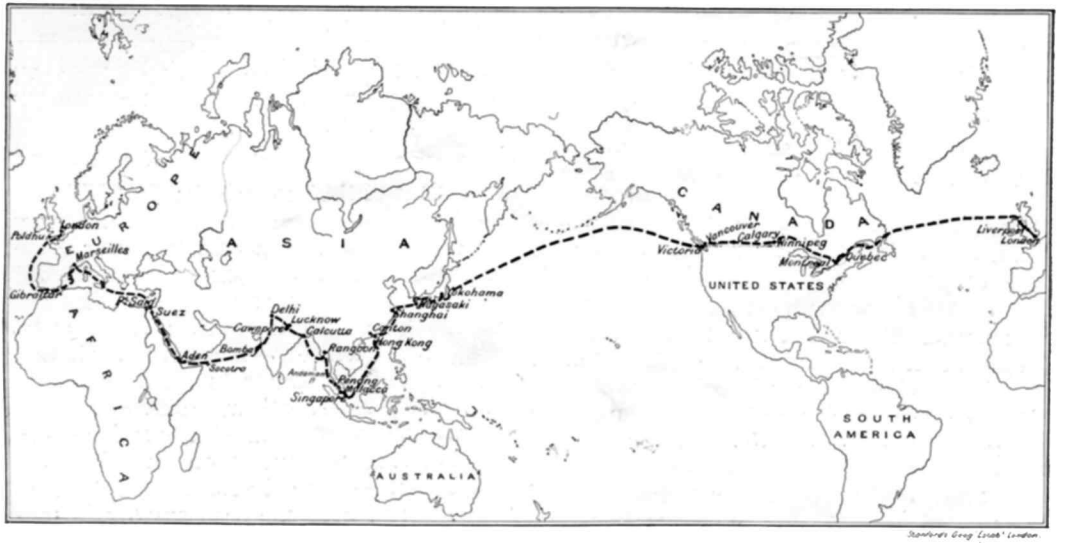
Mr. Rice, who was Engineer in charge of installations at the Turin Exhibition, has now returned to England.

Mr. Rattray, having completed the installation on the Greek warship "Averoff," left Spezia for England on May 30th.

Round the World with "Wireless."

By Edward E. Long.

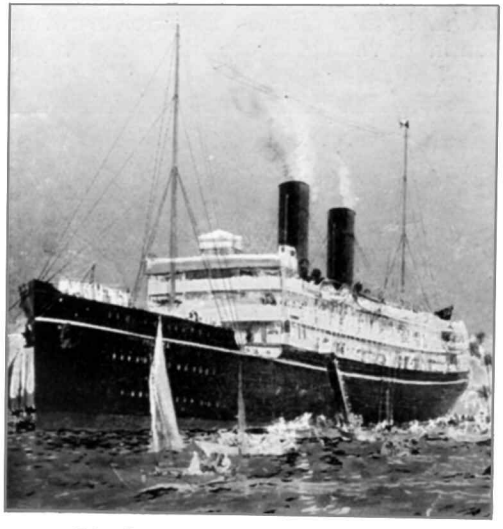
THE following is the record of a journey made round the world with "wireless," that is, with "wireless" on such portions of the journey as were not undertaken overland. "Wireless," with two slight exceptions, filled in the "blue sea" gaps and made communication possible over the vast stretch of ocean which has to be encountered by him who would encircle the globe—put a girdle round the earth. Nowadays, thanks to "wireless," a girdle *has* been placed round the world: a belt of communication runs from West to East, from East to West, and just what this means to those who for various reasons journey far overseas, can be realised, fully, only by the old *voyageur*. To be steaming on, on into the misty distance, for days, and the while to be in touch with home and friends, with the shore, at any rate; credible as it may seem, now, to those who have not travelled, but who hear and see so much of the results of wireless telegraphy, to the traveller at sea it seems incredible—a perpetual miracle, but, withal, one conferring the greatest boon upon him it is possible to conceive. Who, having travelled much in the ante-"wireless" days, does not remember the air of anxiety attendant upon a voyage, the feeling of uneasiness that prevailed when land was lost sight of, not to be regained for several days; the longing to be in touch with civilization once again, and to know all that had happened in the interval; the rush, too, for papers, brought out by the pilot, and telegrams, the eagerness to learn the leading news items of the world? And in time of rough and stormy weather, what old-time traveller does not remember the profound desire with which he was filled to know what sort of weather lay ahead—how many more hours of *mal-de-mer* he might reasonably expect? In changing all this, wireless telegraphy has affected a complete revolution in travelling by sea, the ocean voyage has been shorn of some of its greatest



This illustration shows the route taken by Mr. Long on his journey round the World.

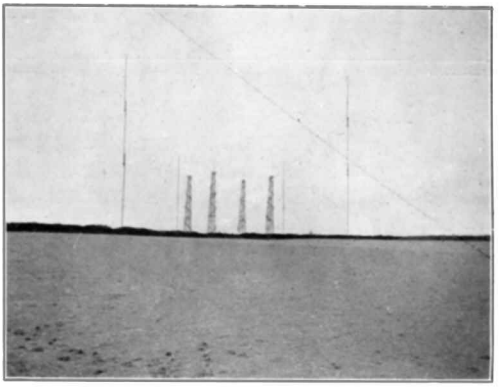
disadvantages, and people are being tempted now "to go down to the sea in ships," who, formerly, could not be persuaded to leave dry land.

The writer went round the world with "wireless" some time back, soon after it became first possible to do so. In the route followed, there were two gaps, but one of these has been filled now, and, by a slight alteration of the route, it is possible to go the whole way round with "wireless." There are, of course, many ways and means of undertaking a journey round the world, but the more general one is to go *via* the Atlantic and Pacific, to Japan, China, India, the Suez Canal, and the Mediterranean to London, or Marseilles; or *vice versa*: the course followed by the writer was from West to East—from London to Bombay, and on. London was left in the Autumn of 1909, and since a good deal of time was spent in Upper India, during the most enjoyable "cold weather" which prevails there from November to February, the journey was not brought to a conclusion until the middle of the following year. The voyage to Bombay was made *via* P. and O.—the vessel, the SS. "Malwa,"



The P. & O. Liner SS. "Malwa."

then one of the three largest steamers of the P. and O. fleet. Magnificently fitted, she was carrying, for, I believe, the first time, a "wireless" installation, thus making her maiden voyage under the auspices of the new telegraphy. The vessel which had



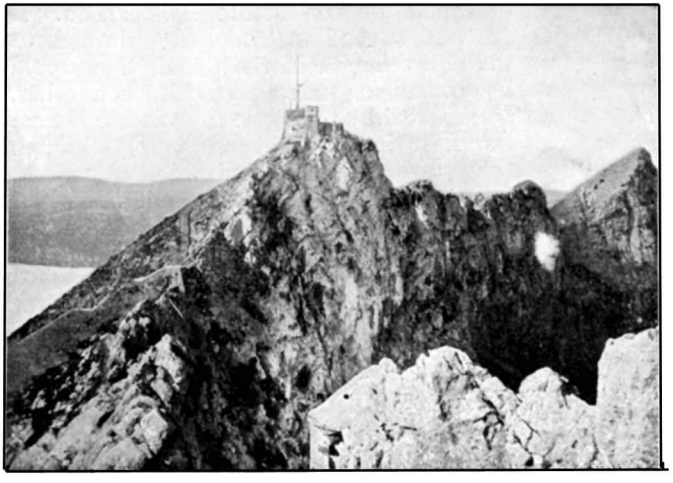
A distant view of the Marconi Station at Poldhu. The "Farewell" Station.

made the previous voyage from London to Bombay, or, at any rate, a voyage just ahead of the "Malwa," the "Morea," had been the first steamer to enter Bombay harbour with "wireless," and great had been the acclamations with which she had been received in Bombay; and when the "Malwa" arrived at the Indian port, "wireless" was still a great novelty.

The writer, being a bit of an old sea-dog, and not fearing a little tossing, made the trip down the Channel, across the Bay, and to "Gib." On the day of departure, an equinoctial gale was blowing, even old Father Thames being heavily white-capped, and the sea in the Channel, once the North Foreland was passed, running mountains high. But of that no matter; the "Malwa" had "wireless" abroad, and all the way down to Plymouth, crashing through the breakers, we could crack jokes with our friends ashore and assure them that we were as fit as fiddles—which some of us were not, decidedly—and Plymouth left behind, the giant Eddystone lost in the sea mist, the "receiver" was busily engaged in "receiving," and the "transmitter" in "transmitting;" and so on into the Bay, past Ushant—dreaded Ushant—and across to Finisterre, with the seas growing higher hourly, and the roll steadily increasing, likewise the spirits of those who do not like

the sea in an angry mood, decreasing, though, by wandering along forward, on the saloon upper deck, the sound of the "wireless" instrument might be heard a tap-tap-tapping out the messages to home, and *terra firma*.

What "wireless," even, could not accomplish with the sorely-distressed, genial sunshine and smoother weather accomplished, as Tarifa, and then the Rock, hove in sight. And now messages began to come in from the war-craft anchored about "Gib," from the Rock itself, and from those mercantile vessels which carried "wireless," as all good vessels should. "What sort of weather had we been having?" was the general question, and a very sensible one, and if the answer we gave them was not satisfactory, at any rate it was useful. Maybe it kept a cruiser or two from starting out to "run through" it, and gave the passenger and cargo craft, homeward bound from the East, a timely warning, enabling them to batten down and prepare for a good wetting. A scamper ashore at "Gib" to stretch one's legs, and for the griffins to see the place, all that one is allowed to see of it; to ride out to the Spanish lines, buy flowers and fruit, drink a glass of good Malaga, and wonder much at the motley crowd which foregathers on Gibraltar and manages to extract a living therefrom; and then away—up past the Balearic Islands, across the Gulf of Lyons to Marseilles, to pick up the people who have had, some no time, others no courage, to come round by sea. A few hours out we meet with a strong head sea, which creates a decided "pitch," and, curiously enough, many of the people who were ill on the other side, who could not stand the rolling, do not seem to mind the pitching; and others, who were not ill with the rolling, go under now. So there are fashions even in sea-sickness; some "prefer" the "roll," others the "pitch," but there is one fashion which, at times, is apt to deal out a knock-down blow to the hardiest sea-traveller—it is the "roll-*cum*-pitch" and "pitch-*cum*-roll" fashion! But pitch or roll as the vessel may, the "wireless" continues to spell out messages; what there is to be known, we get to know, and the sensation created thus is so different from that which we were wont to experience in pre-"wireless"—I was about to say prehistoric—days, that it seems difficult to believe we are racing along through the sea to port; but for the motion, one might be in a train, on land, with the advantage, however, that here one can read as one runs, which is not possible, yet, in the case of railway travelling.



Signal Station, Gibraltar.

At Marseilles a day's stay, or to be correct, an afternoon and a night. A turn in the town, when you get there—from the disagreeable and very extensive docks—Marseilles—Massiglia—with its antiquities, is very interesting—dinner at the famous fish-restaurant, and the theatre afterwards, make a pleasant interlude in the itinerary of the voyage, and prepare one for the distressing experience of a night in harbour, with all its varied nerve-wrecking sounds. At early morn the Continental folk come aboard, and soon we are off to, and through the Straits of Bonifacio, by Corsica and Sardinia to the Italian coast, to pass, later, down the Straits of Messina, between Scylla and Charybdis; on our right, the ill-fated city Messina, slowly recovering from the awful catastrophe which plunged it

into misery unutterable. Then out into what may be termed the open waters of the Mediterranean, skirting by the mouth

Port of Marseilles.

of the Adriatic, famous for its storms in the time of the Apostles; maintaining for us, now, its hoary reputation, and justifying the saying of the pessimists abroad—that misfortunes never come singly, and who have been looking for the third gale: three is a lucky number! From the gaunt, bare and rocky coast of Crete, to the bluest of blue waters that lie between here and Egypt, and fringe the coast of the land of the Pharaohs, and when several hundred miles out, and several hundred miles from Port Said, to receive a "wireless" message therefrom—a message of enthralling interest to most of us—a message causing grave anxiety to one or two, till a later message sets fears at rest.

At this time, Somaliland had not been abandoned, as regards the interior; we were, in fact, policing a desperately wild tract of country, which lies between known Somaliland and Abyssinia, well in the Somaliland portion, of course. The Somalis had been fairly quiet, but the raiding of convoys, if they managed to get the ghost of a chance, was not entirely unexpected, and the message flashed out to us now through the medium of the electric waves which traverse space told us that there had been heavy raiding, with casualties on the British side. All was excitement aboard, especially in circles military, whilst those who were bound for Egypt wondered whether it would mean troops for the front: every one remarked on the wonder of "wireless." Right up to Port Said we continued to get news by "wireless," and when, after half a day of coaling, spent ashore, we started to steam slowly down the Canal, we kept in close touch with the Gateway to the East. In the Canal there is great scope for "wireless." At present, in order to pass with safety, and to ensure that no damage is done to the Canal banks, one vessel has to "tie up" whilst another goes by, and this "tying up" causes no little bother and delay. The number of times a vessel has to "tie up" depends, of course, on the number of vessels in the Canal, and it is possible to know when "tying up" is necessary only as the vessel necessitating the operation comes into sight ahead. If all vessels carried "wireless," throughout the entire length of the Canal, they would be exchanging messages with each other, and it would be possible to estimate almost the exact time it would occupy to go through the water-way, a thing impossible at present. Being a mail-boat, we were not hampered much, and in good time we made Suez—another "wireless" station, providing us with more news.

Then down into the Red Sea, dreaded of all men—who know it—and well deserving the epithet "red," on account of its temperature, and not on account of its colour.

Port Said.
"The Gateway to the East."

In the Red Sea, as in the Suez Canal and the Mediterranean, "wireless" kept us in touch with all that was going on. The latest in Somaliland, and the latest from the course, came in on each other's heels, and the

latter news was peculiarly interesting, because a "classic" event had been decided, concerning which there had been an "auction sweepstake" aboard, and with a crowd of passengers numbering well over three hundred, an "auction sweepstake" is no mean affair. At any rate it proved a counter attraction to the heat, and helped to while away the time between Suez and Aden, together with Mocha on the mainland, where the coffee comes from, sometimes, and the little Isle of Perim. An hour or two at Aden—though long before

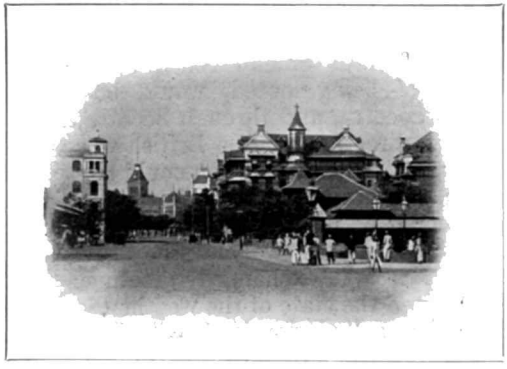
Aden Signal Station.

we made it we were exchanging messages with a British cruiser lying at anchor there—and then away, across the Indian Ocean. So far as I remember, Aden had no "wireless" station then: it is to be hoped it has one now, for never was such a station more needed, nor likely to be of more use. Aden has become one of the important caravanserai on the great highway of the world: ships of all nations visit it, and in the time of the dangerous south-west monsoon, it is able to give very valuable meteorological information; it can furnish news, also, of Arabia, and it ought to be able to keep in constant communication with the Persian Gulf, on the one hand, and Bombay and Karachi on the other. Aden ought to be a great "wireless" station, and the task of making it such is one of paramount Imperial importance, and of vital interest to India.

The next day or so, whilst passing the lonely Isle of Socotra, the thought occurred that here, also, was a suitable site for a "wireless" station, though, to be sure, one would pity the operators stationed on it. Socotra could maintain communication with Bombay, Aden and Zanzibar, besides affording help to vessels approaching and leaving it. A vessel fitted with "wireless" which happened to have the misfortune to run ashore on the treacherous Somali coast, and was in danger of being looted, would be able to inform Socotra, and through Socotra, Aden, or Aden direct, and call a British war-vessel to her aid. And the station could be utilized in the suppression of the slave-trade; Aden, also, could be useful in this way. Halfway across to Bombay we met the sister ship, the "Morea," exchanged greetings, and ascertained the state of the weather, learning that it was "gloriously fine." To receive news, also, from India—from Bombay, and not to see who had brought it, to be just out there in mid-ocean, not a living thing in sight, and yet to be in touch with the distant shore towards which we were heading, it seemed to be impossible—make-believe; that it was nothing of the kind, however, we knew when a day or so before entering port we found notices posted up advising us that for a certain charge we could send messages to our friends in all parts of India announcing our probable time of arrival, an enormous convenience to them, and, what was of special interest to us for the moment, that we could book rooms at the Taj Mahal—Bombay's palatial hotel. To be able to do all this whilst far out at sea, and to receive messages from friends awaiting one on shore—the value of it all is amazing to those who have travelled much before and never been able to do it. A generation will arise soon which will look upon all this sort of thing as part and parcel of the voyage, as much an item of it, perhaps, as the bill of fare, and the *punkah* in the Red Sea, but to travellers of this generation, it must remain more or less of a novelty, when they think of the old days, a novelty to be appreciated heartily.

At Bombay, the first portion of the journey round the globe came to an end. We all left the "Malwa," most to scatter themselves over India, many to stay till next leave-time, some to return to England at the conclusion of the "cold weather," others to roam further afield. The next few months were spent by the writer in Upper India, Lucknow, Cawnpore, Delhi,

Agra and Calcutta, and in the jungle, and from Calcutta, early in April, he essayed another portion of the journey by sea—from



Bombay.

India's capital to Burma's capital—Rangoon. This journey is usually made by means of a British India Steam Navigation Company's steamer. At this time, the vessel which carried me across the Bay of Bengal was not fitted with wireless apparatus. It ought to have been—all the British India boat ought to carry "wireless," for surely never did boats need it more. At some seasons of the year, cyclones, of a very disastrous nature, are prevalent in the Bay, and great damage, to shipping and loss of life they occasion. Calcutta has "wireless" communication, and there is a Wireless Station on the Andamans; it has been there for a long time and done yeoman service, and it is in touch with the Burmese coast, also, and valuable work is done with these stations in he way of warning shipping of dangerous weather, but until the steamers using these waters are themselves fitted with "wireless," there must be greater risk attached to the voyage across the Bay of Bengal from Calcutta to Rangoon, from Madras to Rangoon, and from Calcutta and Madras to Penang and Singapore, than there should be. Singularly enough, I came very near to being one of those to suffer by reason of the absence of "wireless." The day previous to sailing, news was received that a cyclone was somewhere about in the Bay; the Andamans had reported it. The "Palitana" was allowed to sail, however, but it was not without some misgivings as to the weather that we steamed down the Hooghly. It was afternoon when we left; at night we were awakened by the sudden cessation of the engines, and then slept but fitfully, wondering whether it was a bad breakdown. In the morning, however, we were informed that we had been stopped by a wireless message, forwarded to us by the pilot brig, by signal, ordering us to refrain from proceeding on our journey, on account of the proximity of the cyclone. Ten or twelve hours were spent, altogether, in cruising about, and then we resumed our voyage—and missed the cyclone, but up the Rangoon river, three days later, we saw another British India boat, which had been through it, and suffered considerable damage. "Wireless" had been the means of our salvation; though we had not carried it.

A few days in Rangoon, the rapidly-growing business centre of Burma, and then on by coasting steamer, through the beautiful Mergui Archipelago, to Penang, there to take train for Malacca, through the Federated Malay States and from Malacca on, by small local steamer to Singapore, a hundred miles or so distant; and the run through the rubber plantations and the tin-mining districts of Malaya was interesting, and instructive. After a short stay in Singapore—pearl of the Orient—on, by P. and O. "Devanha," to Hong Kong. Here, again, I had to travel by a steamer which was non-"wireless," though the "Devanha," which carries the mails from Bombay to Shanghai, has since made good the defect. We left Singapore on the fateful Friday when King Edward lay dying at Buckingham Palace, and few, very few, of his subjects oversea knew that he was dangerously ill. Two days later a passing craft, which had left port a few hours later than ourselves, signalled that the King of England was dead. So startling was this message, and so bald, with no details whatsoever, that the captain of the "Devanha" was almost disinclined to believe it. As we approached Hong Kong, and met craft after craft with flag half-masted, however, we knew that the news was only too true, but what a great deal more we could have learned had we been fitted with "wireless." Strangely, too, Singapore was then, I believe, without a "wireless" station, when it should have been one of the first places to have been equipped

with a powerful installation, having regard to its importance and unique situation. Like the Bay of Bengal, the China Sea is infested with cyclones, termed "typhoons," at certain seasons of the year, and Hong Kong and Singapore ought to be in constant wireless communication, so as to be able to afford the most reliable information to vessels fitted with "wireless" plying in those waters. Further North, "wireless" does already play a great part in tracking the typhoon, and it should do so throughout the whole region.

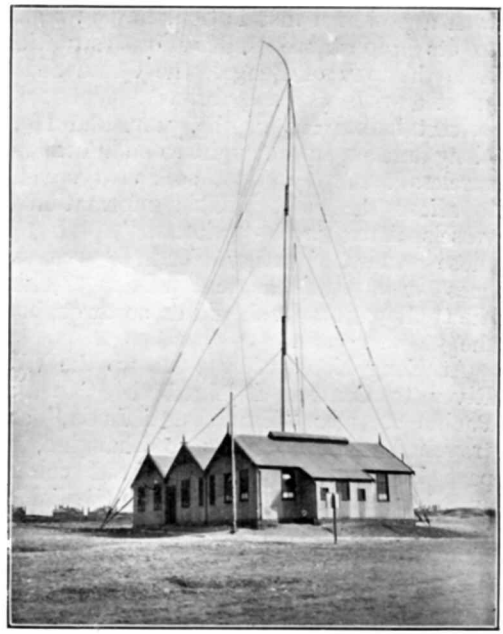
At Hong Kong, after a run up the West River to Canton, I joined the Canadian Pacific steamer "Empress of India," and travelled aboard of her to Shanghai, up past Formosa, Japan's go-ahead colony, and thence to Nagasaki, through the Inland Sea of Japan—the superb Inland Sea—to Kobe, and round to Yokohama. The "Empress of India" carried "wireless," and one felt glad to be back with it again. Absence had made the heart grow fonder—of news, and now one was more eager than before, perhaps, to learn what was going on. From cruisers at the mouth of the Woosung we got messages, and between Shanghai—the Paris of China—and Nagasaki, we learned that we had missed the tail-end of a cyclone, the information coming from Japan, for the Japanese are progressive, and believe in according an extensive patronage to "wireless." They use it largely for meteorological, as for other purposes, and they gain considerably by doing so.

Arriving at Kobe, some of us leave the steamer there, and take a three days' scamper through the country to Kyoto, Myanoshita and Fujiama—to rejoin later at Yokohama, and we are all the better for the trip when we steam out of Yokohama harbour, bound for Vancouver, across the dreary waste of water known as the North Pacific Ocean. This journey is about one of the loneliest it is possible to imagine. Practically the only craft taking the extreme northern route across are the Canadian Pacific steamers, and the officers of the steamers say it is a very rare sight indeed ever to meet with another vessel far out from the shore on either side. Here it is, then, that "wireless" is needed, and can play a great part, as it does, thanks to the wisdom and caution of the Canadian Pacific authorities. With the splendid station on the coast of Northern Japan, communication is maintained for over a thousand miles out, then a slight gap, soon forgotten as another C.P.R. vessel comes into the "wireless" radius and tells about the weather we are to get, probably, for the next two or three days, and then, after another brief interval, we pick up the Canadian "wireless" station, and commence to send messages to the Dominion, and to receive them. All across the lonely Pacific, practically, we kept in touch with the world, and the world kept in touch with us. Friends knew that we were safe; we knew that there was a good chance of help reaching us, even in those solitudes, in time of danger. There, it was, that one was led to realise the enormous value of wireless telegraphy—there, where but for it, we should have been deserted and alone for days, shut off from civilization, a company apart from the rest of the world and its busy life.

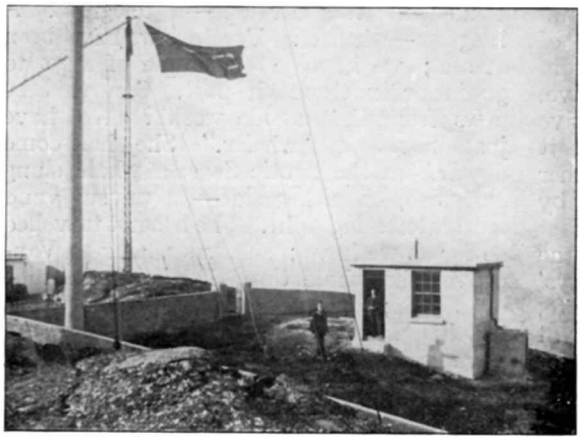
Sitting at dinner one evening, when we were within a few hundred miles of Vancouver, the man next to me was tapped on the shoulder by one of the stewards and handed a little envelope—a telegram. A telegram—whence? For days we have been at sea; we have yet a couple of days to go in order to reach port. Can this be news from the outside world? We have just passed a "whaler." She has come down from the Arctic Seas, a whale slung alongside, on either side—an unusual and most interesting sight. She has not travelled so far as we have; she was nearer to Vancouver the whole time than we were nine days ago; and yet, whilst probably she has had little or no news for months, we have been receiving news daily—hourly, sometimes. Some day, "wireless" will have reached every "whaler," made lighter the lot of the whalermen, and proved a good investment to the "whaler" owner; meantime, we are led, more than ever, to realise its worth.

Even after Japan—Japan the Magnificent, the Island Switzerland of the East, with its flowers and gardens fair—the approach to Victoria and Vancouver holds one entranced—the dark green pines, the giant snow-capped mountains, the clear, jewel-studded waters. Then comes the adieu to the

"Empress of India," staunch little craft, and the journey up through the wonderful Selkirks, and the grand Fraser Canyon, to the great Rockies beyond; the descent to rolling, ranching plains by Calgary, and the long ride through the millions of acres of nodding wheat, by vast forests of lumber, rich mineral hills, and the great lakes of the North American Continent, out to Montreal, the St. Lawrence, and Quebec. A rest in the Château Frontenac, up on the Heights of Abraham—lordly pile, overlooking the river beneath and all the surrounding country, and only just below the old Fort for which Wolfe and Montcalm died; and then to the "Empress of Ireland," up the river, to the Straits of Belle Isle—not *belle*, but very misty, cold and dismal, as so often they are—to Liverpool. The "Empress of Ireland" carries "wireless," of course. What steamer on the Atlantic run does not carry it? And now we pass into what may be termed the "wireless" domain. From all sides messages come, thick as leaves in Vallambrosa, till the trouble is to deal with the news



Marconi Station at Seaforth, near Liverpool.
"The End of the Journey."



Marconi Station at Malin Head.
The "Greeting Station" to Ireland.

received, not to search for it. Here there is no break in communication. All the way across the "herring-pond" news flies to us apace, and each morning, with the grilled bacon and tomato, is served up, in bulletin form, the news which has arrived overnight — the morning paper. More difficult than ever it becomes to realise that one is at sea; one gets almost at sea, at times, in endeavouring to realise it, but once the Malin Head station is "open," and messages begin to go and come through, there is no time for speculation or imagination: the reality of the arrival home, after a prolonged absence, begins to take the shape of an accomplished fact; the business of arranging about disembarkation occupies the mind. Before I arrived at Liverpool, I had been round the world—with "wireless."

EDWARD E. LONG.

[*It must be understood that the journey having been made over a year ago, other Wireless Stations have since been opened on the line of route, and others in various parts of the world are now in the course of erection.*—ED.]

Enlargement of the Company's Works at Genoa.

Marconi's Wireless Telegraph Company, Limited (Italian Agency), have, in addition to the great number of Italian vessels which have already been equipped with Wireless Apparatus, during 1910 fitted no less than 20 of the large Italian vessels with various power sets.

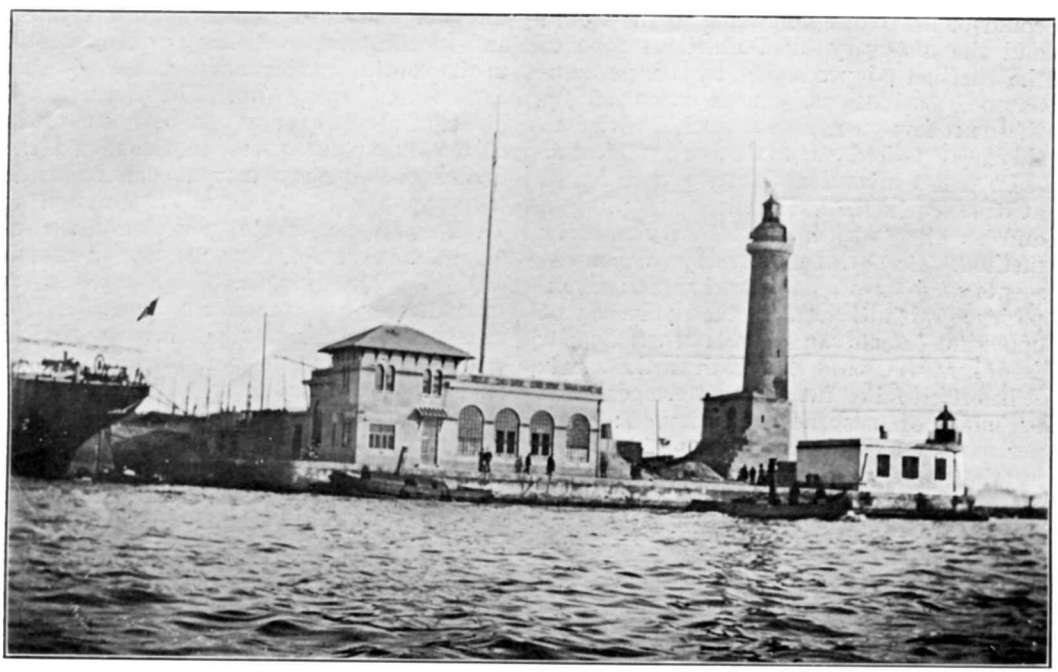
The apparatus was manufactured at the Company's works at Genoa, and the installations carried out by their staff of engineers.

At the time of the formation of this Agency, large and spacious premises were opened at Genoa, but owing to the rapid development of this branch of the business, and in order to keep pace with the ever-increasing demand for Wireless Apparatus, it has been found necessary to further develop the present works, and for this purpose a concession has been obtained from the Consorzio del Porto di Genova for an additional 423 square metres of land.

Wireless Telegraphy at the Coronation Exhibition, 1911.

No doubt many people are mystified by the technicalities involved in the working of wireless apparatus. Although most of us, if not all, have read about the mysterious way in which messages are flashed through space by the means of wireless telegraphy, the actual working of the apparatus has been witnessed by but a limited few, and for this reason Marconi's Wireless Telegraph Company have had two of their wireless installations placed in the Science Section of the Exhibition, one representing a ship at sea, and the other a coast station.

Two operators are in attendance daily at both these stations and demonstrate periodically how wireless messages are transmitted and received from ship to shore or vice versa. The public will also have an opportunity of sending marconigrams either to ships at sea or to their friends abroad, as the stations act as a bureau for the acceptance of wireless messages.



The present Marconi Works at Genoa.

High-Frequency Alternators for Wireless Telegraphy

By J. A. Fleming, M.A., D.Sc., F.R.S.,

Professor of Electrical Engineering of University College, London.

NUMEROUS inventors have been attracted by the problem of constructing very high frequency alternators. From 1889 or 1890, when Tesla first constructed an alternator giving a frequency of about 10,000 and fascinated the scientific world with his experiments, others have endeavoured to improve this appliance. The invention of Spark Wireless Telegraphy by Mr. Marconi in 1896, coupled with its simplicity and immediate success, destroyed all interest in these alternating currents of moderately high frequency, but before long the idea that great advantages would ensue if persistent oscillations of very high frequency could be created, again came to the front; and the discovery by Duddell in 1900 of the method of producing by the arc undamped oscillations, caused attention for the next few years to be much directed to this arc method of producing oscillations.

Poulsen's inventions in 1903 were hailed at once as the final solution of the problem and as the "death knell" of the spark method. But these obituary announcements were premature, since practical experience with the arc method revealed at once its defects and limitations. So far from having caused the death of the spark, it has itself fallen into a comatose condition or state of suspended animation: 99·9 per cent. of all the wireless telegraphy in the world is conducted still by spark methods. Nevertheless, the mechanical production of high-frequency oscillations still attracts inventors. Fessenden spent much time and labour in endeavouring to construct forms of Mordey alternators driven by de Leval steam turbines, which could create currents of considerable power and frequencies of 80,000 to 100,000, but he seems hardly to have proceeded beyond the experimental stage.

The latest attempt is that of Dr. Goldschmidt, lecturer in the Darmstadt Technical College, who has devised an ingenious method of multiplying up frequency by means of an induction motor.

If a continuous current is passed through the stator of an induction motor, and if the rotor is caused to revolve by some means, the rotor circuits will be traversed by an alternating current, the frequency of which will depend on the number of poles of the stator and speed of the rotor. If the alternating current produced in the rotor is led through the stator, it will produce a revolving field, which can be used to create in the rotor currents of still higher frequency. These, again, can be led through the stator, and in turn induce higher frequencies still in the rotor. In this manner the frequency can be multiplied up. The currents of intermediate frequency can be taken up in condenser circuits tuned to them, and the final high-frequency current can be made to circulate up and down an antenna or aerial, and so create persistent electromagnetic waves of, say, 10,000 or 20,000 feet in wave length. This process is scientifically and practically possible, and its success, so far as tried, has resulted in a company being formed in Germany to exploit it, called the Hoch-frequenz-Maschinen Aktien Gesellschaft für Drahtlose Telegraphie, with a share capital of £105,000.

Having regard, however, to the enthusiastic manner in which the Poulsen system was hailed by its supporters a few years ago as inaugurating a new régime in wireless telegraphy, it is clear that caution is required before accepting this mechanical method of producing undamped oscillations as a valuable addition to the resources of practical radio-telegraphy. A very fair analysis of its claims to utility has recently been made

in the pages of a contemporary, but one possible drawback to it was not pointed out, which may prove to be extremely important. The Goldschmidt method essentially depends upon a process of weeding out the intermediate steps in the multiplication of the frequency by means of tuned condenser circuits. Now we know very well the great difficulty in preserving an absolutely constant speed in a dynamo, even when driven by a direct coupled motor. If the speed of the induction motor varies even by a half per cent., this would suffice to throw it out of tune with the various fundamental and harmonic condenser circuits, and so reduce immensely the amplitude of the final high-frequency oscillation. Modern receiving circuits are, however, constructed with such small damping that a ve y small variation in the frequency of the incident waves would decrease the received currents very considerably, and might hence make the signals inaudible. Again, if any pulsation took place in the amplitude of these radiated waves, having a frequency within the limits of audition, it would cause a sound in the receiving telephone which would drown out the sound of the proper signals. Furthermore, in any case, the received wave trains would have to be cut up by a " ticker " to make them audible, and it is more difficult in this way to obtain the high musical note in the telephone required to overtop the sounds of atmospherics than it is when creating uniform rapid trains of intermittent oscillations by the Marconi revolving dischargers, or some form of musical spark dischargers. For all these reasons it will be well to suspend enthusiasm for the new method until it has won its spurs by actual contest with the old-established and reliable spark method in the field of everyday radio-telegraphic work.

New Patents.

Two patents, Nos. 11359 and 11360 of 1910, for improvements in Field Station apparatus, have recently been granted to the Company, and Messrs. R. D. Bangay and C. E. Prince.

The first patent refers to the arrangement of the apparatus in boxes, so that it is divided into loads which can be easily carried by men or attached to the pack-saddles of horses, and so that the fewest possible connections are required between the boxes when they are set up for working. The boxes form of themselves the operating table, and all the apparatus being fixed and connected up inside, there is no packing or unpacking to be done. Further, the primary and secondary of the transmitting jigger are in separate boxes, which only have to be placed one upon the other to make the magnetic coupling between them, the degree of the coupling being varied by sliding one box on the other.

The second patent refers to the attachment of a small generating set to a pack-saddle. The saddle has a rigid metal frame, to the opposite sides of which the petrol engine and dynamo are fixed in their working positions. Thus for working it is only necessary to lift the metal frame (which also forms the bed-plate of the generating set), off the saddle and to couple the engine and dynamo together, with a suitable connecting rod.

Tracked by Wireless.

As in the famous Crippen, case when wireless telegraphy played such a prominent part in tracking criminals on the high seas, a somewhat similar case recently came to light, although in this instance public excitement was not so great. It appears that Mons. D'Abbadie D'Arrast, a well-known Parisian, eloped with a governess, but their plans were frustrated when the steamer arrived at Quebec. A marconigram was despatched from Paris to the SS. " Lake Manitoba," on which the eloping couple had sailed, and consequently they were detained on arrival at Quebec. Mons. D'Arrast, who admitted his identity at once, put an end to a mystery which had been occupying the attention of the Paris police for some considerable time.

In connection with the use of wireless telegraphy in this case, it is a somewhat remarkable coincidence that the pilot Gourdreau who piloted the steamer " Montrose " from Father Point with Crippen on board also brought in the " Lake Manitoba."

THE MARCONIGRAPH

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by

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The Imperial Conference.

The discussion of the proposal of New Zealand for an Imperial Wireless Telegraph system had not been reached at the time of our going to press, and we are therefore unable to include the report of this subject in our present issue.

Annual Report of La Cie de Telegraphie sans Fil.

The Annual Report and Accounts of our associated Belgian Company (Cie de Telegraphie sans Fil) were presented to the General Meeting of Shareholders at Brussels on the 3rd May.

The Report states that at the 31st December, 1910, the Company had installations on board 88 boats, and during 1910 the Company fitted the following boats:—

4 boats of the Hamburg Amerika Line.
1 boat of the Compagnie Belge Maritime du Congo.
2 boats of the Red Star Line.
2 boats of the Campania Transatlantica Espanola.
1 boat of the Koninklyke Hollandsche Lloyd.
7 boats of the Nederland Steamship Co.
8 boats of the Rotterdamsche Lloyd.
2 boats of the Fred Olsen Line.

Referring to the *Atlantic Daily News* which is published by the Marconi Companies, the report states that at the 31st December, 1910, this journal was published on ten boats of the Compagnie Generale Transatlantique, on 14 boats of the Hamburg Amerika Line, on six boats of the Holland Amerika Lyn, and on three boats of the Koninklyke Hollandsche Lloyd: also that six boats of the Norddeutscher Lloyd and four boats of the Det Forenede Dampskib Selskab were subscribing to the service of long distance press messages.

The Company has declared a dividend at the rate of 10 per cent. on the ordinary shares for the year 1910.

Messrs. Thys and Travailleur were re-elected as Directors of the Company.

Wireless Telegraphy in the House of Commons.

In his annual statement in the House of Commons, Mr. Herbert Samuel, Postmaster-General, made some complimentary remarks concerning wireless telegraphy.

He stated that the number of British ships fitted with wireless telegraphy had more than doubled, the number now being 290; the number of wireless telegrams despatched during the last twelve months had increased by 60 per cent.; a new station was to be erected near Newcastle for the North Sea, and another in the island of Valentia to deal with the increasing traffic in the south-west of Ireland.

Closing Prices, May 31st, 1911.

Marconi's Wireless Telegraph Co., Ltd., London.

Ordinary	33/9 to 34/9
Preference	32/6 to 35/-

Obituary.

We much regret to announce the death of Mr. Neil McIntyre, aged 26 years. He was employed as telegraphist by the International Marine Company of London, from the 5th June, 1905, until 6th January, 1906; by the Compagnie de Telegraphie sans Fil of Brussels from the 7th January, 1906, until 29th October, 1907; and subsequently by the Marconi Wireless Telegraph Company of America. It was at Virginia Beach, where he was employed in the service of the American Company, that he succumbed to an attack of typhoid fever. His aged widowed mother, of whom he was the sole support, is placed in a position full of difficulty and trouble by his untimely death, and without doubt all those of the operating staff who knew "Mac" will be pleased, as a mark of the esteem they had for him, to contribute towards the subscription that is being made on behalf of Mrs. McIntyre.

MR. NEIL McINTYRE.

Subscriptions should be addressed to the Editor of "The Marconigraph" magazine, Watergate House, York Buildings, Adelphi, London, W.C.

The sum of £12 has already been subscribed by La Compagnie de Telegraphie sans Fil, Brussels.

We reproduce a photograph of the late Mr. G. L. Bullock, who was Traffic Manager of the Marconi Companies in London, whose death we announced in our April issue.

MR. G. L. BULLOCK.

This photograph, which we think will interest many of our readers, was taken with a group of the Traffic Department at Dalston a few years ago.

Staff Changes.

Mr. Kearsley, who joined the Company on 15th February, 1909, has left the service of the Marconi International Marine Communication Company, Ltd., having been appointed chief operator of the stations recently erected by the Company in Fiji for the Government.

On his leaving the service of the Company to proceed to Canada, Mr. W. Dixon, for many years on the staff of the Accountant's Department, was the recipient from his friends at the head office of a handsomely fitted suit case.

Athletics.

Marconi Athletic Club (London).

The Cricket Section of the club has, up to the present, enjoyed a very successful season: five matches have been played with the result that three have been won, one lost and one drawn. On the 27th May the Works Athletic Club were met at Chelmsford. The Works batted first but fared badly before the fast bowling of Mr. Ketteridge and were all out for 37; the London team started their innings disastrously, two wickets being down without a run scored but Mr. Menear and Mr. Flood Page, by a good stand, put a different complexion on the game, the London team eventually winning with a score of 60. After the match over 60 of the members of both clubs partook of tea at the Works Clubroom, under the presidency of the Works Manager (Mr. C. Mitchell), after which a billiard, whist and cribbage tournament followed, the London team returning to London by the last train after a very enjoyable outing.

Marconi Athletic and Cycling Club, Chelmsford.

Keen interest is being taken in the Billiard Tournament, in which Mr. Hazleton is scratch man, and many hard games have been played.

The Cycling Section have a good programme of Saturday and Sunday runs from the Clubhouse.

We learn that several members have started training for the Chelmsford inter-works sports gathering, so that last year's record, when nearly thirty-three per cent. of prizes were won by Marconi men, may be beaten.

Notes on Books.

"ELECTRICAL DISTRIBUTING NETWORKS AND TRANSMISSION LINES, by Alfred Hay, D.Sc. (Cassell, 10s. 6d. net).

There is no doubt that everyone connected directly with the electrical industry will welcome this book. Written by an authority of such high standing as Professor Hay, the work treats of every phase of the subject, both theoretical and practical. A description of the systems of distribution in use, the types of cables, the determination of their sizes and the localization of faults is given.

The book is thoroughly up-to-date, and not only among mains engineers and their assistants will the work reveal much that will help them to grapple with the problems of their intricate work, but to electrical engineers in general the book is not without interest.

"The Electrician" Printing and Publishing Company have several items in their catalogue which appeal to wireless engineers, operators, etc. One of these is Dr. Belcher-Hickman's Wireless Slide Rule; another is Professor J. A. Fleming's "Hertzian Wave Wireless Telegraphy"; and there is the well-known book by Sir Oliver Lodge, "Signalling Across Space Without Wires" (The Work of Hertz and Some of His Successors). The aforementioned publications are in addition to "The Electrician" Primers, which deal with telegraphic and telephonic subjects, including wireless. The Company also publish the "Official International Telegraph Convention and Service Regulations" (Lisbon revision, 1908), the "Proceedings of the Wireless Telegraph Conference, 1903, and the "Proceedings at the International Radio-Telegraphic Conference, Berlin, 1906." These publications are officially accepted by the British Post Office Authorities.

THE PRINCIPLES OF ELECTRIC WAVE TELEGRAPHY AND TELEPHONY, by J. A. Fleming, F.R.S., 906 pp., price 28s. net.

AN ELEMENTARY MANUAL OF RADIO-TELEGRAPHY AND RADIO-TELEPHONY, by J. A. Fleming, F.R.S., 340 pp., price 7s. 6d. (Messrs. Longmans, Green & Co., 39, Paternoster Row, E.C. Second edition.)

These well-known books by Dr. Fleming, F.R.S., Pender Professor of Electrical Engineering in the University of London, have attained a wide circulation. The larger book on the Principles of Electric Wave Telegraphy appeared first in 1906, and ran into a large first edition and second issue. The call for a second edition in 1910 enabled Dr. Fleming not only to revise and re-write the book thoroughly and increase its size by 200 pages, including a new chapter on Wireless Telephony. It has been admitted on all hands to be a classical and standard treatise on the subject of Wireless Telegraphy by electric waves. It appeals to the advanced student, investigator and practical radio-telegraphist, by the thoroughness and extent of its information and treatment, and by its copious references. The work of M. Marconi, as the inventor of radio-telegraphy, is naturally very fully dealt with historically and scientifically, but the scientific work of other inventors also receives full recognition. The mode of discussion comprises a full mathematical analysis of the phenomena of electric wave creation and propagation and application in radio-telegraphy. The smaller manual by the same author is adapted for the use of operators and students whose scientific and mathematical knowledge is more limited, but its exposition of the subject is lucid and careful, and it forms an excellent introduction to the larger book, which for a long time will remain the standard treatise in the English language on electric wave or wireless telegraphy.

Lectures, etc.

ROYAL INSTITUTION OF GREAT BRITAIN, ALBEMARLE STREET, PICCADILLY, W.

Friday evening, June 2nd.—Commendatore G. Marconi, LL.D., D.Sc., M.R.I., *Radio-Telegraphy.*

Thursday, June 8th.—T. Thorne Baker, *Practical Progress in Wireless Telegraphy.*

Chronicle of Past Wireless Events in the month of June.

3rd June, 1898.—First prepaid Marconigram sent by Lord Kelvin, *via* The Needles and Bournemouth Wireless Stations.

4th June, 1904.—Daily service of wireless news messages inaugurated on the Cunard R.M.S. "Campania."

10th June, 1909.—"Slavonia" stranded on Flores Islands, Azores. Wireless communication effected with the "Batavier" and "Prinzessin Irene," and passengers transferred and brought safely to port.

Visit to the Works.

During the first week in May a party of nearly fifty students from the Institute of Mechanical Engineers visited the Company's Works at Chelmsford, and were shown round the various departments by Mr. C. Mitchell, the Manager, Mr. H. M. Dowsett, Chief of the Testing Department, and Mr. A. Eddington, Assistant Works Manager. The visitors, who were specially interested in the long distance apparatus, expressed themselves as having been quite mystified by some of the technicalities. Tea was served in the new extension at the invitation of the Directors.

Social.

We notice that the Hon. Mrs. Marconi assisted the wife of the Italian Ambassador and Mrs. Angiolo Ortelli to receive some 650 guests at a ball held recently in aid of the Italian Hospital.

The function was a very brilliant one, and amongst the guests were many distinguished persons, including the Italian Ambassador, the Italian Consul-General and his wife, and many members of the diplomatic circle. Signor Caruso was present during the evening.

Field Station Apparatus.

Demonstrations at Constantinople.

Marconi's Wireless Telegraph Company have, during the past few weeks, under the auspices of Major J. E. Cochrane, D.S.O., been carrying out important demonstrations at Constantinople.

Two of the latest Cavalry Type Field Station Sets were used, these being so designed that they may be carried either on the backs of mules, or other pack animals, or alternatively, the apparatus can be carried in carts; the latter type of installation being known as the "Infantry Type" Field Station.

The preliminary trials between these two stations were carried out across the Bosporous, the Infantry set being set up in the precincts of the Naval Barracks, on the north side of the Bosporous, and the pack set (or Cavalry set) being erected at the Selimieh Barracks. After these preliminary tests the Infantry set was sent by rail to Guebzeh, where it was erected in the vicinity of the railway station, the Cavalry set being situated in the vicinity of the Selimieh Barracks; the distance between these two places amounted to some 45 kilometres, the intervening ground being undulating and cultivated.

Messages in Turkish, as well as in European languages, were interchanged, the quality of the signals being thoroughly reliable.

The demonstrations were witnessed by H.H. the Sultan, as well as a large number of Naval and Military Officers.

The trials were still proceeding at the time of going to press.

Wireless for Airships.

It is understood that the Admiralty have appointed Lieut. R. M. Groves, 1st Lieut. of H.M.S. "King Edward VII." to take control of the experiments which are to be carried out with a view to adapting Wireless Telegraphy to the new naval airships. It is expected that he will shortly enter upon his new duties on the "Vernon," the Naval Torpedo School at Portsmouth, where special experiments are now being carried out.

The Transmission of News by Wireless Telegraphy to Vessels at Sea for incorporation in "The Atlantic Daily News."

SOME day, perhaps, when the complete romance of Marconi's Wireless Telegraphy comes to be written, proper provision will be made for an adequate expression of appreciation of the effort that culminated in the production of the *Atlantic Daily News* and its sister papers, *Das Atlantische Tageblatt*, the *Journal de l'Atlantique*, and the *Diario del Atlantico*.

This four-titled magazine, which is admirably printed and illustrated, has become an established necessity in the life on shipboard, for not only is it a recognised advertising medium for the finest products of the world's marts and the best class of hotels, and health resorts, a reliable guide to pleasant travel, a source of news to those exiled on the ocean's watery wastes, and, withal, a literary production of some merit; but, by its very presence on board ship, it affords food for reflection and conversation in those hours at sea which otherwise would be filled with thoughts and remarks on the "day's run," the everlasting topic of the weather, shuffle-board records and the engine-room.


S. S. „POTSDAM" Thursday, April 6th, 1911.

THE ATLANTIC DAILY NEWS

NEWS RECEIVED DAILY BY WIRELESS TELEGRAPHY

A reduced facsimile of a cover of "The Atlantic Daily News."

We reproduce in this number a reduced facsimile of a recent cover of the *Atlantic Daily News* and one of its news pages. The cover illustration varies with each number issued, and it usually is an index of the leading article that the number contains. The news page is nevertheless—notwithstanding our childish liking for pictures — *the* page of interest to those "that go down to the sea in ships." By its means the temporary inhabitants of the modern floating palaces are saved the indignity of ignorance of the world's affairs when they set foot on *terra firma* after a voyage across the ocean, and although it may be asserted that the good old days when ignorance during a crossing was perfect bliss are to be regretted, we venture to express the belief that the assimilation of the concentrated news as now published in the *Atlantic Daily News* and its sister papers is much more beneficial than the study of newspaper back-numbers with which one was faced after an ocean voyage, before the latest "boon and blessing" entered the ranks of journalistic forces.

Having once read the paper in some sunny corner of the boat-deck in Summer, or some cushioned snuggery of the smoking-room in Winter, we, as intelligent people, give some thought to the manner in which the news reaches us across the wide. It does not take us long to decide that the choice of news is made in a broad-minded and altogether competent manner, that there is great accuracy in the transmission of the news by " wireless," that the printing staff must have been up betimes to let us have our paper so early with the news presented neatly, and that we are quite fortunate mortals to live in an age of such enterprise ; but what most of us cannot quite grasp is the manner of reception on board. It has all been explained to some points on the earth's surface, the high power stations of Poldhu (Cornwall), and Cape Cod (Massachusetts), having received their respective bulletins of news of eastern and western hemisphere interests, give a few preliminary coughs and clearings of their mighty throats, command the close attention of the many pairs of ears that are anxiously listening for them, and then thunder out their message with Gabrielian voice. At least, it is like that at the land stations. Far out in the ocean the weary-eyed operator, longing for the news and yet wishing it were over, so that he could get away to his bunk, listens with bated breath, watching meanwhile furtively his timepiece to make sure that there is no error in his adjustment, and he heaves a

LATEST NEWS

Received from the long distance station at Poldhu, England.

S. S. „NIEUW AMSTERDAM" — WEDNESDAY, APRIL 12th 1911.

COMMENTS ON DIFFERENT TOPICS BY LEADING EUROPEAN PAPERS by special arrangement

The London **Times**, commenting on the Huth bequest, says „The trustees of the British Museum have selected fifty volumes of manuscripts and printed books in accordance with the terms of the Huth bequest. This is the most important gift of books the Museum has received since the Grenville bequest in 1846 and the benefaction obtained by this department, cannot be compared for importance or extent with those received by other departments of the Museum."

The **Kölnische Zeitung** says „The King and Queen of Württemberg yesterday celebrated their silver wedding at Stuttgart. The streets were crowded all day with townpeople and peasants from the country. Their Majesties drove out in the afternoon and were greeted with loud cheers all along the route. Emperor William sent a personal letter, conveying his warm congratulations to the King and the Queen."

The **Temps** says „The ceremony of presenting Mr. William Winter, the wellknown English philanthropist, at Toulon, with the Knight's Cross of the Legion of Honour, was made the occasion of a warm demonstration in favour of the Entente Cordiale. Two thousand persons attended the ceremony and the town offered a great banquet in his honour in the evening."

New dreadnought makes world's record speed.

LONDON, April 11th. — The new dreadnought „Indefatigable" made a world's record speed during her trial-trip. She attained 29 knots.

New Castle Express escapes disaster.

LONDON, April 11th. — A terrible disaster to an express at New Castle has been narrowly averted. The driver mistook the signals and only pulled up a few yards from another train.

Louvre Museum acquires valuable art collection.

PARIS, April 11th. — By the death of Count Isaac de Cumondo, the National Museum of the Louvre enters now in possession of an art collection worth over four million Dollars.

The troubles in French champagne section.

PARIS, April 11th. — Sunday's demonstration of the winegrowers passed off in an orderly manner. Another demonstration is being held today at Damery.

Conditions in Morocco.

PARIS, April 11th. — The situation at Fez is reported to be desperate. The rebellious tribesmen are fiercely attacking the Sultan's troops.

Airships in transatlantic service.

BERLIN, April 11th. — A report is current that a company is forming with a huge capital to construct dirigibles, eight times larger than the Zeppelins, for a regular tranatlantic service.

Cologne Conference agrees to raise in freight tariff

BERLIN, April 11th. — The recent shipping conference at Cologne has agreed to raise the freight tariff to China and Japan.

Employment frauds cause scandal at Munich.

BERLIN, April 11th. — It is reported that a great scandal has occurred at Munich in connection with employ-

Continuation of news on following page.

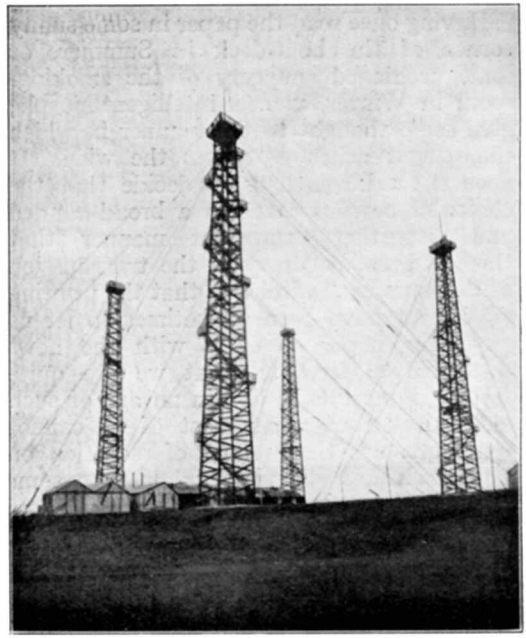
No responsibility undertaken for possible inaccuracies in the news published.

A reduced reproduction of a page from " The Atlantic Daily News," showing the actual Marconigrams.

of us in beautiful technical language, which, like some strange melody, still echoes in our ears, but which for the life of us we could not reproduce. This, however—deprived of the terminology that usually accompanies the description—seems to be the fashion of its performance. Towards the witching hour, in two widely separated sigh of relief when the mutterings of the distant station reach him softened to a very whisper, beside which oftentimes the tick of a watch is loud in comparison. Manfully he struggles with his desire for sleep, and with the atmospheric disturbances that, drowning the whisperings, would deprive us of our news. With a twist of

this and a turn of that, with the addition of this wire and the removal of that other, he worms from the air the information that to-morrow is to help us pass many an otherwise weary hour. With mutters of surprise at the news he himself learns for the first time, and with many imprecations on the head of the unlucky steward who seeks to serve him with coffee while he is struggling to resolve the meaning of the signs that cross space with a speed that is affected by no manner of weather, he finally receives the closing signal and the "good-night" of the power station within his range of hearing, glad to know that his paper of the morrow is provided for, proud in the knowledge that he of all the souls on board is the only connecting link with the land that speaks to them of safety and all they hold dear.

It is an interesting subject, this reception of news by long-distance apparatus on board ship, and those passengers of the Cunard Line, the Allan Line, the Aberdeen Direct Line, the Canadian Pacific Railway, the Hamburg-American Line, the Holland-America Line, the Forenede Dampskib-Sellskab, the Koninklijke Hollandsche-Lloyd, etc., are to be envied the simple pleasure that the Shipping Companies and the Marconi Companies thus afford them.



Marconi Station, Poldhu.

In conclusion we would say that the other illustration which we reproduce shows the exterior of the transmitting station at Poldhu.

QUIZ.

The Life of a Wireless Operator at Sea.

By J. R. Stapleton.

Mr. J. R. Stapleton, one of the first Wireless Operators to join the service of the Marconi Company.

WHEN asked to write about "The Life of an Operator at Sea" the task did not appear to be very difficult, but now the prospective has become an actuality the difficulties of portraying generalities within so small a space are distinctly obvious, especially when viewed from the different standpoints that are ever present in a seafaring life, as each view taken presents its own particular aspect, and reveals a distinct picture to each individual observer.

Looking, then, at an Operator's life from the public point of view, the first and foremost thing that strikes one can be summed up in the word "Kaleidoscopic," for it is that in the extreme, and undoubtedly the most prominent feature in the life is that of change—change so complete and swift that we, as the movable parts in the great Kaleidoscope, never have an opportunity

of becoming stagnant by remaining in the one position, and much of our time is occupied in transition. An Operator may be here to-day and there to-morrow; the "here" may mean the Albert or Millwall Docks, while the "there" may be a ship bound for the Icefields of the North, while to be told to sail for the Sunny South within the next twenty-four hours' notice is not an improbability; it is therefore most essential that an Operator should be *semper paratus*. Once, when packing my portmanteau, a friend made the remark that should my ghost by any chance ever be seen, it would most certainly appear packing a bag; so you see that a most important part of an Operator's changeful life is one of preparation and readiness for any emergency.

When the trials of "mustering," "signing on," and "baggage" are over, and the ship casts her stern lines adrift, the Operator at once becomes to a great number of passengers a centre of mysterious attraction, for now that home and friends are fast sinking away astern, what is more natural than for them to turn to the individual who holds the key which under his manipulation flashes forth their wishes and desires, for his wireless apparatus is the one connecting link between ship and shore?

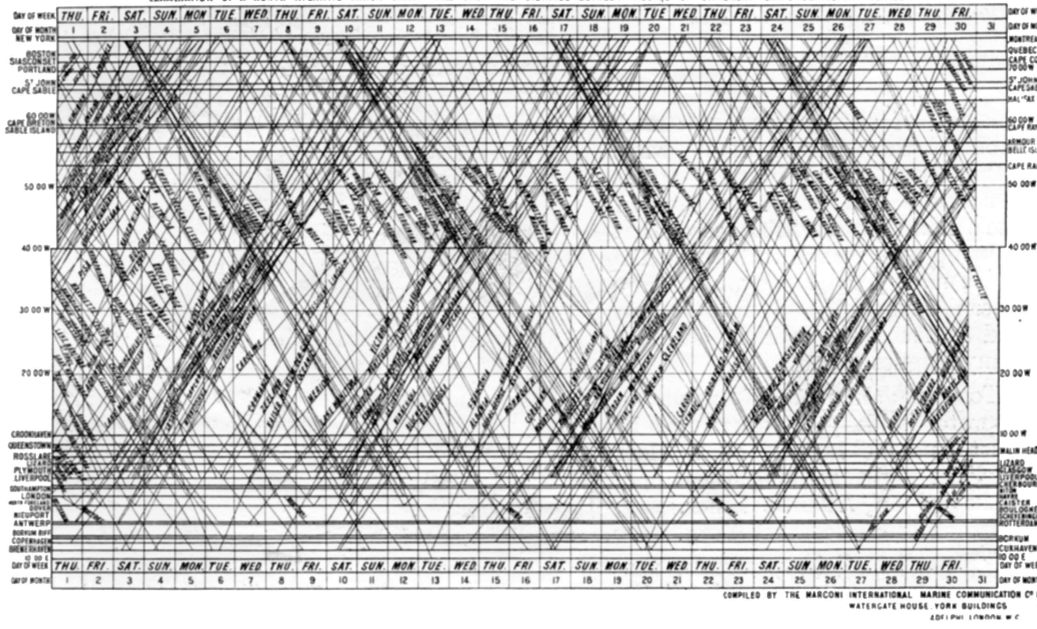
An Operator's work brings him directly into contact with the captain, officers, and passengers. He has no regular hours in which to take his rest, and his food is very often left untouched, owing to one's assistant (there are two operators on all the large Atlantic vessels), having "turned in" when meals are served. He is often worried, too, at the critical moments by Quartermasters at the door, with notes from the Captain, Stewards with messages from the Purser, telephone from the Enquiry Office ringing for particulars, and half a dozen passengers waiting to hand in their Marconigrams.

On the whole, the work of a Wireless Operator is most interesting and fascinating, and a layman can hardly appreciate the

COMMUNICATION CHART.

—JUNE 1911.—

TIME TO BE USED WEST OF 40° LONGITUDE NEW YORK TIME EAST OF 40° LONGITUDE GREENWICH TIME
INTERSECTION OF LINES SHEWS EARLIEST TIME SHIPS CAN BE IN SAME LONGITUDE AT BEST AVERAGE SPEEDS
COMMUNICATION SHOULD BE ESTABLISHED AT EVERY INTERSECTION EXCEPT AT CERTAIN POINTS OF THE ROUTE WHEN ONE VESSEL IS ON THE NORTHERN AND THE OTHER ON THE SOUTHERN TRACK
EXAMINATION OF A NORTH ATLANTIC TRACK CHART WILL SHEW THE DISTANCE BETWEEN ROUTES OF DIFFERENT SHIPS DURING ANY VOYAGE



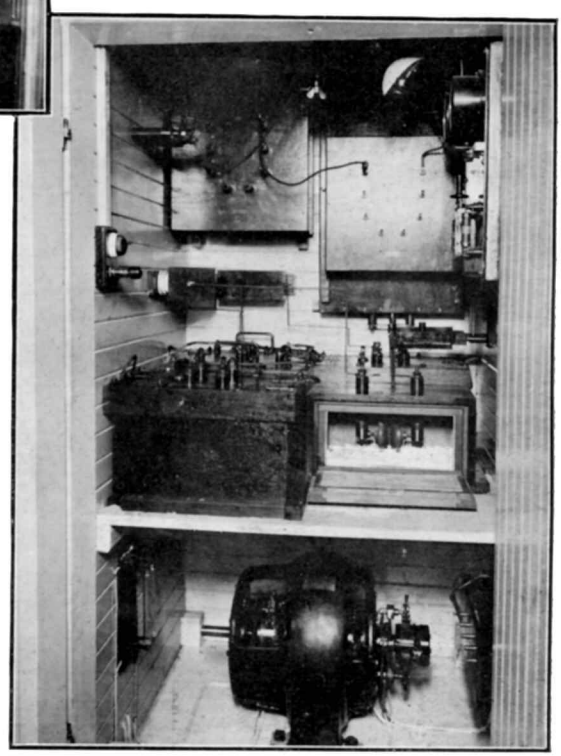
COMPILED BY THE MARCONI INTERNATIONAL MARINE COMMUNICATION Cº Lº
WATERGATE HOUSE, YORK BUILDINGS
ADELPHI LONDON W.C.

A Marconi Officer receiving messages in the "Wireless" Cabin on board ship.

pleasure of sitting alone in a small cabin in the dead of night, while "throbbing" a lonely way across a desolate sea, and having under one's hand an invisible cord that links up the world and gives the latest news from lands which sank astern days ago, and from ships and other lands which are yet many leagues ahead.

To give an idea of what an Operator is likely to experience, he must imagine himself on a clear starlight night walking the upper decks of an Atlantic Liner, say, outward bound for New York.

"Five Bells" have struck, passengers have all "turned in," the deck lights are out, and the greyhound is ploughing a silent way across the ocean. He enters the Wireless Cabin to relieve the Operator on duty, who has possibly just cleared the "Campania" of her traffic and given good-bye to the "Minnehaha"; whilst the "Kaiser Wilhelm der Grosse" is just coming within range, and the "Cymric," reported 540 miles ahead, bound westward. With a "good-night" the door slams, and he turns to look at his Communication Chart to ascertain what communications he is likely to establish during the night, and learns that, say, the "Kaiser der Grosse" is due in half an hour, the "Lusitania" at midnight, and "Philadelphia," "Amerike," "Rydam," "President Lincoln," "Montrose,"



The Transmitting Apparatus in a Silence Cabin.

and "Columbia," due to communicate between two and eight o'clock. Before he has finished taking note of the Chart, the Quartermaster knocks and hands in the following note from the bridge: "At 10 p.m., G M T, we were 410 miles S.E. of Sable Island," which means towards dawn he will be in communication with the Wireless Station on that Island.

He then arranges his different switches, winds up the clock-work of the Wireless Receiver, and places upon his head the Telephone Receivers. At once he is connected with the outside world, for now a slight buzzing tells him that the "Minnehaha" to whom his assistant gave "good-night" is fast dropping astern; now he hears faintly the German boat speaking to the Cunard SS. "Lusitania," whilst here is another ship signalling to Cape Race, that she is 200 miles East of Cape Race, and reports two large icebergs and a quantity of pack ice, giving latitude and longitude for warning; an Allan Liner homeward bound with the Canadian Mails signals to Halifax: "10.40 p.m., "Virginian" 150 miles South-East of Sable, all well." Five minutes later he receives the following

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which tells him that the Commercial Cable Company's steamer "Mackay Bennett" is calling and desirous of sending a message. A turn of the hand starts his transmitting gear, and he flashes back

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telling her to "Go," and in less time than it takes to describe he has received a messsage for the Commander. The message is acknowledged, and back comes —— ——· ——· ——· ——· which means being interpreted "Good-night, no more." A quarter of an hour's wait and our Operator hears the approaching "Kaiser" calling, and in half an hour has cleared her of her telegrams, and possibly sent her some that he had on hand from passengers aboard

The Marconi Multiple Tuner for adjusting to the various Wave Lengths.

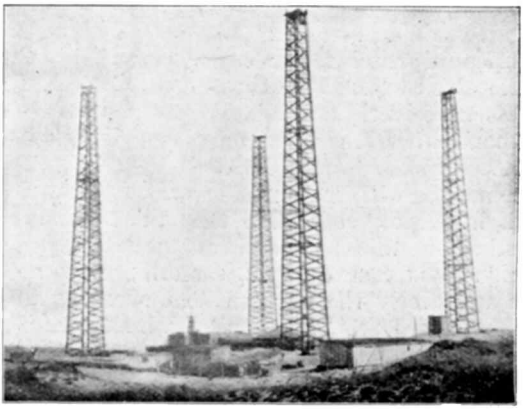
to be sent to friends homeward bound on the "Der Grosse." A glance at the clock shows nearly midnight, and exactly at that hour he must "Stand by" to receive the latest press news from the high power stations situated at Poldhu, in Cornwall, England, and Cape Cod, in Massachusetts, America. He then gives a general call, and tells all stations and ships in the vicinity that he will be "By" in ten minutes for press.

The high power stations work on a special wave length, and our Operator must "tune" his apparatus up to receive that wave, which done, he sits with pencil and paper before him waiting for the first signals from Cornwall, now 2,000 miles astern. Exactly on the stroke of twelve o'clock (G. M. T.) his straining ears catch the following preamble of Poldhu's message: 'CQ CQ CQ. Ten private messages after press for "Lusitania," seven for "Campania," three for "Amerika," and two for "Olympic." 486 words of press. . . .' Poldhu then sends a full-stop and commences transmitting its news, which contains the latest telegrams received from all parts of the world up to date. The press is copied out by our Operator and handed to the Purser, who sends it to the printer who reproduces it in the *Atlantic Daily Bulletin*, which can be obtained as a "morning paper" each day during the voyage. Does the man in the street realize that it is possible to have news aboard in the ship's little morning paper as quickly

as on shore, and that passengers read the news on the same day as those at home? The following personal experience will illustrate my meaning:

No doubt many readers will recall a terrible collision that occurred one Saturday during 1909, between a Liner and a Cruiser, while going down the Solent in a blizzard. I was then outward bound on the RMS. "Oceanic," which left Southampton on the Wednesday previous to the collision, and we were then about 1,200 miles Westward of the Isle of Wight. As usual, I "Stood by" at midnight that Saturday to receive Poldhu's press, and by 12.30 the whole of the account of the disaster had been received by me, and in less than ten hours after its occurrence it was known aboard every ship fitted with long-distance apparatus within a radius of 1,500 miles of the Long Distance Station. The death of our late King (which occurred at 11.45 p.m.), was known at sea two hours after the sad news was announced in London. I merely mention these incidents to show how wireless has made possible an up-to-date paper aboard ships at sea, and in both these cases I venture to say that those afloat received the news before thousands of people ashore had read it in the daily papers. The following instance shows how an individual aboard may be communicated with in record time, and it will, I think, come as a surprise to many that such a feat is possible. One night, whilst crossing to America on the Cunard ship "Caronia," I was just taking the news from Poldhu, Cornwall, when the operator suddenly stopped, and after a few moments' pause said, "One private message for 'Caronia' in a minute." After the lapse of about five minutes (during which time Poldhu was receiving the message from London), the telegram came through, and ten minutes later the message was copied out and delivered to the passenger, who read it exactly fifty minutes after the sender had handed it into the Central Telegraph Office in London, 800 miles away. This compares well with the usual forty minutes taken by a telegram from a city office to a suburban home. This is a very frequent occurrence, and commercial travellers and business men realize that Wireless Telegraphy remains no longer a mysterious uncertainty, but has become a real and necessary business accessory. But here I find myself wandering into personal experiences, so must hie back to our Operator.

At 2.30 a.m. Poldhu has finished the programme, and our man is glad to have half an hour's rest before commencing to take 500 more words of news from Cape Cod Station, which commences to send out the "latest" American Continental telegrams



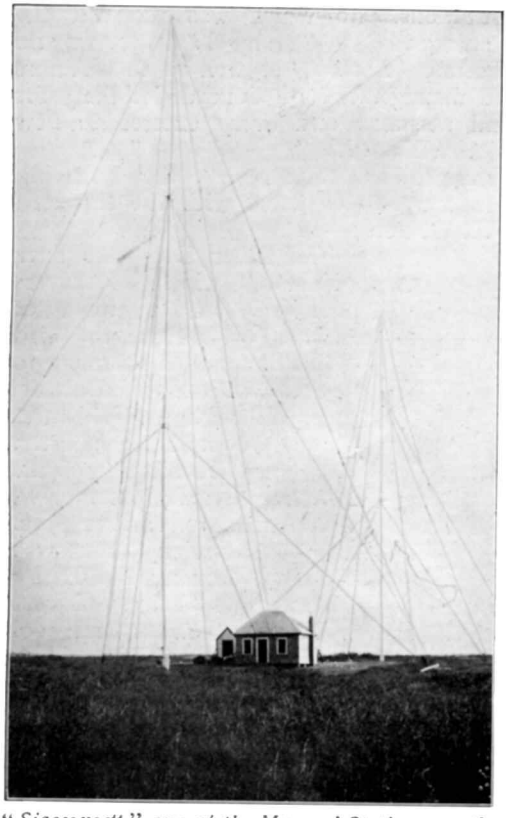
Marconi High-Power Station, Cape Cod, U.S.A.

at three. By five o'clock he has finished with Cape Cod, and is glad when the last of the "printer's proof" has been sent down for insertion about 5.30.

The apparatus has now to be readjusted for communication with the batch of ships that should now be well within the vicinity, and having "cleared" them, Sable Island Land Station is on the alert to take messages. This station is so situated that ships remain in communication for sometimes as long as thirty-six hours, many telegrams being sent to both England and America, and replies received to them before the ship is "out of range." By this time, communication has been made with all ships charted, and "cleared" to the land station; our Operator has done a good night's work, is glad to hear the bugle sound for breakfast, and to "hand over" once more to his assistant who comes to relieve him.

Apart from the actual working there are many interesting points in common with the "wireless" which may be studied, and

during the hours of "Standing by" the studious Operator may find food for observation. He may, for instance, listen to the discharges, which are conveyed and registered on the receiving telephones (caused by electrical disturbances in the air). It may sound strange to the man in the street to talk of "hearing" lightning, but though this is not actually the case, the Operator can hear in his telephones the disturbances caused by it, as he can also hear the "atmospherics" originating from the Northern Lights and Meteorites. At one time the periodical crashes in the telephones of these "atmospherics" used to hamper the working of wireless, but owing to the discoveries of "tuning," the use of high-frequency sparks and the system of "balancing," the difficulties have been practically abolished. An approaching hailstorm is always preceded by an electrical disturbance, and I have often recorded them and warned the officer on the bridge of the storm's approach long before it has appeared on the horizon.



"Siasconsett," one of the Marconi Stations on the American coast for communication with ships at sea.

Another great source of interest is the unexpected appearance of what is technically called "Atmospherical Phenomena," which means that by a curious combination of atmospheric conditions it is possible to send a message thousands of miles with the same power and installation that under ordinary circumstances would have a maximum radius of 500 miles. While travelling to Africa on the Union Castle steamer "Briton," I transmitted messages right across the Continent to the Wireless Station situated on the Bluff at Durban, a distance over land of 800 miles.

It is a curious fact that the greatest phenomena seem to occur below the Equator, and more especially in and around the South American Continent. The Postmaster-General of Argentine stated a short time ago, that the air conditions in Argentine were so favourable for wireless working that schemes were being formulated for the opening up of many land stations throughout the country. These "Wireless Ghosts" come and go, intensifying the mystery by their very revelations, and like spectres of the night, having no fixed time give, us no clue on which to work out their mythical movements. I feel sure I have said enough already to show that the work is pleasant and peculiarly fascinating by reason of the infinite possibilities it opens out, in the way of the further and greater wonders that remain to be discovered and harnessed for our comfort and convenience. In conclusion I may say that the countries I have visited during my connection with the Company as an Operator are as follows: United States, Canada, Norway, Sewden, Holland, Denmark, Russia, France, Italy, Egypt, Austria, Palestine, India, Arabia, Ceylon, the Maldive Islands, and Africa.

Wireless on Aeroplanes.

Mr. J. A. D. McCurdy, the well-known Canadian aviator, while flying at a height of about 3,000 feet over Long Island Sound, set up communication with a wireless station at New York.

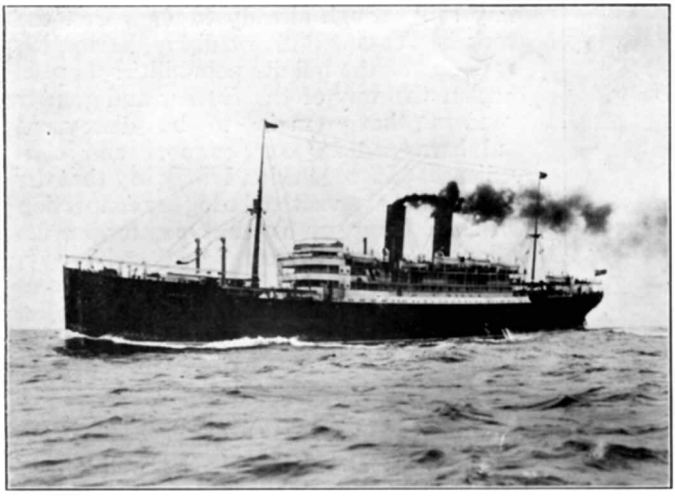
Maritime Wireless Telegraphy.

THE greatest event during the month of May was the equipment of the largest modern liner afloat, the SS. "Olympic," which was launched on May 31st by Messrs. Harland and Wolff at their Belfast yard.

Naturally this vessel, by reason of its remarkable size, should be equipped with a high-power plant, and it is expected that communication at a very long range will be effected.

For the trip from Belfast to Liverpool, thence to Southampton, this vessel was only fitted with a standard 1½ K.W. Ship Set, but a 5 K.W. plant is now being installed and will be completed before she sails on her maiden voyage on June 14th from Southampton to New York.

Although similar power plants have been installed on other big liners now afloat, the greater range which it is anticipated will be attained by the "Olympic" will be due to the greater span between the masts as compared with that of other liners.



Cunard Liner SS. "Ascania."

The new Cunard SS. "Ascania," which marks a new era in the service between England and Canada, was fitted during the month of May, and her initial voyage from Newcastle to Southampton was conspicuous owing to her communicating by wireless with the Kaiser's Yacht "Hohenzollern."

The message was:—"Commander Irvine, R.N.R., of Cunard Royal Mail Steamer 'Ascania,' now on maiden voyage, begs to convey from himself, officers, also directors, general manager and chief officers Cunard Company now on board, their most respectful salutations," to which was received the following reply:—"Many thanks to you and officers of 'Ascania,' as well as to directors and management of Cunard Company for kind message, and every success to new ship. William I.R."

Besides the "Ascania" the following vessels were also fitted with the standard 1½ K.W. Sets:—

The Elder Dempster liner "Falaba," which left Liverpool early in May for West African Ports. This is the third of this Company's steamers to be fitted with Marconi apparatus, although several others are to be equipped shortly. The SS. "Pachitea" of the Peruvian Steamship Company, which sails to various ports on the Peruvian coast, was fitted at Rouen; the Bibby Line steamer "Leicestershire," which sails between Liverpool and Rangoon, *via* Marseilles; and the SS. "Corinthic," of the Shaw Saville Albion Line, with a service between London and New Zealand, *via* the Cape. Messrs. C. T. Bowring and Co.'s SS. "Stephano" was similarly equipped.

The S.Y. "Viking," controlled by the

Polytechnic Touring Association, which sails from England to Norwegian Ports, has been equipped with a 5 K.W. plant. A similar set is being installed on the SS. "San Guglielmo," belonging to Messrs. Pierce Brothers, and it is expected that this vessel will shortly leave the builders' yard at Glasgow and sail to Italy, from whence she is to take up her regular sailings.

Orders have been received to equip the following vessels, and we shall deal with them more fully in our next issue:—

Northern Navigation Co. (Canada).	SS. "Hamonic."
,, ,, ,,	SS. "Huronic."
,, ,, ,,	SS. "Sarconic."
Leyland Line	SS. "Colonian."
,, ,,	SS. "Californian."
,, ,,	SS. "Antillian."
,, ,,	SS. "Asian."
Peruvian SS. Co.	SS. "Ucayali."
Booth SS. Co.	SS. "Aidan."
Elder Dempster & Co.	SS. "Akabo."
,, ,, ,,	SS. "Burutu."
,, ,, ,,	SS. "Nigeria."
,, ,, ,,	SS. "Tarquah."
,, ,, ,,	One other (name unknown).
,, ,, ,,	Two Express Steamers building.
Turnbull, Martin & Co.	New Steamship building.

Le Compagnie de Telegraphie sans Fil have recently equipped with the Standard 1½ K.W. Apparatus, the following six ships of the Sociedad Pinillos Izquierdo y Compania:—"Cadiz," "Balmes," "Martin Saenz," "Catalina," "Valbanera," "Pio IX," which have a service between Spain and Central African Ports. The same Company have also equipped Empreza Nacional de Navigacao a Vapor "Africa" and "Beira," which sail from Lisbon to South Africa; and the "Monte Video," of the Compania Transatlantica Espanola, which sails from Barcelona to New York and Habana.

Le Compagnie de Telegraphie sans Fil have received instructions for the equipment of the following vessels:—One for the Empreza Nacional de Navigacao a Vapor; Sociedad Pinillos Izquierdo y Compania, SS. "Miguel M. Pinnillos"; Compania Transatlantica Espanola, SS. "Montserrat"; Compania Transatlantica Espanola, SS's "Buenos Aires," "Legazpi"; National Steam Navigation Company of Greece, SS. "Macedonia."

The wireless apparatus (De Forest) installed on the H.A.P.A.G. SS. "Oceana" is being removed for a Marconi set to be installed. The Belgian Company will carry out the work.

The Bureau International de L'Union Telegraphique, Berne.

The following are extracts from the Official Notifications which have been issued by the Bureau International de L'Union Telegraphique, Berne:—

FRANCE.

Monsieur Andre Frouin, Inspector-General, has been appointed by the Government Director of Telegraphs in the place of Monsieur Bordelongue, who, having resigned his position for reasons of health, has been appointed Honorary Director.

Monsieur Bordelongue, who had occupied his position for more than twelve years, took part in the Preliminary Conference on Wireless Telegraphy at Berlin in 1903, as well as in the International Radio-telegraphic Conference at Berlin in 1906. At the latter Conference he acted as President of the Commission charged to examine the draft service regulations.

Monsieur Ch. Chaumet has been appointed, by the President of the Republic, Under-Secretary of State of Posts and Telegraphs.

BRAZIL.

This Administration will exercise the option afforded by par. 5 of Art. xxxvi. with regard to the accounting arising from the exchange of radio-telegraphic service between its coast stations and ship stations. In addition to the radio-telegraphic charge, there will be a uniform surtax of 25 centimes per word without minimum for the land service. No surtax, however, will be charged for delivery to addresses in the following towns on messages sent through the neighbouring coast stations, namely: for Pernambuco if transmitted *via* Fernando de Noronha or Olinda; for Bahia if *via*

Amaralina; for Rio if *via* Babylonia; for Santos if *via* Monte Serrat. This latter station will be opened shortly. The rates for radio-telegrams sent to the republics of the Plate, and routed on the South American Land Lines, are as follows: Fc. 1.40 per word from a coast station north of Rio, and Fc. 0.90 from a station south of Rio de Janeiro, that town included. The rates for the town of Buenos Ayres are reduced by 20 centimes. The rates for Chili are uniformly Fc. 2.05 for Valparaiso and Santiago, and Fc. 2.15 for the other offices.

FRANCE.

From the 1st April, 1911, stations on French warships will be open to general public service. The ship rate is 5 centimes per word without minimum.

MOROCCO.

Pending the official admission of this Government to the International Radio-Telegraphic Convention, the coast stations at Casablanca, Mogador, and Tangiers, will accept telegrams emanating from vessels at sea carrying installations worked by the Marconi or Telefunken Companies, or by the various shipping companies. These radio-telegrams will be sent, according to their destination, to one of the three cables terminating at Tangiers; and the Marconi Company, the British General Post Office, the Administration of the Dutch Posts and Telegraphs, and the Eastern Telegraph Company, having proposed to send radio-telegrams destined to ships at sea, such radio-telegrams will be accepted by the Moroccan Administration. The rate for telegrams through these coast stations is Fc. 0.50 per word without minimum, comprising coast and landline taxes over the whole Moroccan System until the telegram reaches the cable.

MONTENEGRO.

The following are particulars, as supplied by the Montenegrin Administration, of the wireless station at Antivari-Volouitza:—

Geographical position:	36° 44′ 00″ E. 42° 54′ 00″ N.
Call letters:	M A N
Normal range:	200 kilometres.
System:	Marconi.
Receiving apparatus:	Sound.
Wave length:	About 500 metres.
Service:	Public; also with ships.
Hours of service:	8 a.m. to 12 noon. 2 p.m. to 12 midnight.
Rate:	Fc. 0.15 per word for telegrams to Italy. On telegrams from Italy, Fc. 1 per telegram plus 9 centimes per word.

RUSSIA.

The working of the coast station at Petropavlovsk in Kamtchatka is interrupted, the station having been destroyed by fire.

ITALY.

The Italian coast and ship rate, which is at present Fc. 0.63 per word, with a minimum of Fc. 6.30 per telegram, will from 1st June, 1911, be reduced to:—

(*a*) Coast rate: Fc. 0.30 per word without minimum.

(*b*) Ship rate: Fc. 0.40 per word without minimum.

As regards telegrams exchanged between Italian coast and ship stations, the ship rate will no longer be included in the coast tax.

The above modifications do not apply to Italian Somaliland.

Empire Day.

On Empire Day the following wireless message, despatched in the Indian Ocean by the transport carrying the Australian Coronation Contingent, was received at Buckingham Palace:—

"Officers and men of the Australian Coronation contingent, at sea *en route* for England, send an Empire Day assurance of loyalty and devotion to His Majesty's throne and person, and wish for him a long and prosperous reign as the beloved sovereign of the great British empire."

A reply was despatched by marconigram, thanking Major Wynne, who is in charge of the contingent.

Movements of Telegraphists.

Mr. H. J. Tattersall has just returned from St. John's, Newfoundland, where he fitted four of Messrs. Harvey & Company's Sealing Vessels, afterwards accompanying the steamship "Adventure" on her expedition in the icefields.

Mr. E. T. Fiske is now in Australia, and is not expected back for some time. He is at present engaged in the fitting of vessels, and has already completed the installation on the steamship "Grantea" of the Adelaide Steamship Company.

Messrs. H. J. Tattersall, A. L. Caldwell, R. Cox, and A. E. Baker, are at present on duty at the Great White City Exhibition, where the Company are displaying a Standard Ship Installation.

Dave Sarnoff, formerly of Seagate, and who has just returned from the icefields, has been placed in charge of the New York Wanamaker Station.

Mr. A. H. Ginman, for many years in charge of the Siasconset Station, is now engaged in the construction department, New York.

Mr. H. S. Williams has been transferred from Siasconset Station to the SS. "Philadelphia."

Wireless Operators in the Navy.

Wireless telegraphy promises to solve, to a great extent, the difficulty of finding employment for Post Office telegraph messengers who have passed the age limit.

It is impossible for all of them to be appointed to the permanent staff of the Post Office, but owing to the rapidly increasing use of wireless telegraphy in the Navy, there is a large demand for wireless operators in the Naval service, and the Admiralty has decided to give special facilities to postal employees in filling the vacancies.

Chess Match at Sea.

Another instance in which Wireless Telegraphy has enabled passengers of two liners on the high seas to participate in a game of chess was recorded, when the chief officer of the Cunard Liner "Ultonia" won a game with the third officer of the Austrian SS. "Laura." During the whole of the play neither vessel sighted the other.

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