MARCONI TELLS OF HOPES TO BRIDGE CHASM OF THE SKIES IN TALK WITH OTHER WORLDS

Possibility of Interplanetary Communication Affirmed by Wireless Wizard, Now Conducting Experiments in New York Harbor on Board Famous Electric Yacht

LANGUAGE OF THE WORLDS MUST BE WORKED OUT ON NUMERICAL BASIS

"Father of Wireless" Soon to Begin Experiments off the Coast in an Effort to Flash Radio Message Around the Globe

ALEXANDER THE GREAT longed in vain for new worlds to conquer. A flight of fancy, that, but it has captivated the minds of man down through the centuries.

Is the world of today approaching an era when the modern magic of radio science will conquer the immensities of space?

Will man eventually be able to tap the knowledge and wisdom of other planets, assuming some of them to be inhabited by the intellectual equals or superiors of the human race?

Guglielmo Marconi, "Father of the Wireless," says that this stupendous concept is not an impossibility.

Marconi is now in this country, making his headquarters on the ocean-going yacht Elettra, the "floating capital" of the wireless world.

The Elettra is anchored in the North River, off Eighty-sixth street, New York City, riding at ease near the Columbia Yacht Club.

From the shore, after the eye takes in the graceful lines of the $1,000,000 craft, with the flag of Italy drooping from the stern, the observer notes the criss-cross of antennae from the mastheads. An accommodation ladder drops overside for the convenience of arriving and departing guests of the great inventor.

Marconi spends most of his time on the yacht, generally sequestered in one of its two wireless rooms, the larger of which is on the main deck. There he listens-in, usually tuning his instruments to catch broadcasts from England.

England is the inventor's "second home," and he admits a deep interest in all the messages flashed from "the tight little isle."

Marconi Found Busy on Customs Report

Marconi was in the after cabin, busy with a customs declaration, when he agreed to divulge some of his impressions about the present and the future of the science in which he won eminence.

He wore a dark blue serge suit and a white yacht cap with the royal crown of Italy embroidered above the peak.

He is tall and muscular and inclined to portliness. His face is virtually unlined and his complexion is light for one of his race, probably an inheritance from his Irish mother.

Naturally, from the years he has passed in England, Marconi has a facile command of English. One notes the broad a's that seem to have been formed in London drawing rooms. His manner is quiet and somewhat reserved, with absolutely no trace of "side" or false pride.

He led the way to the wireless room on the main deck, separated by a narrow passageway from a spacious dining saloon. From this passage rises a companionway giving access to the upper deck.

The main wireless room is a maze of dials, switchboards, levers, sending keys and receiving sets. In one corner, near the door, is a little flat desk with scratch pads and an ordinary telephone.

On the starboard side is the compact table at which Marconi sits and hears the rap-rap of high-frequency commercial messages, a medley of broadcasts from the four quarters of the globe, and harmonies as though Ariel had turned musician and was flooding space with music.

Recalls Early Days of Radio Development

As he sat there, with a receiving set momentarily adjusted, Marconi's memory leaped back to the day when a wireless spark carried his first message.

"It was only as far as from there to here," he said, indicating the passageway and his chair, a distance of about eight feet.

From that recollection of the birth of radio, more than twenty years ago, Marconi's mind came back to the present, with the lusty giant of the wireless crashing its messages over seas and continents.

"The next improvement in wireless," he said, as he slipped off the headpiece, "is the sending of private messages, messages that will reach the ears of the persons they are meant for, and no one else.

"I have solved the problem," he said. He stepped to an open porthole and pointed to the wooded heights of New Jersey, bathed in the June sunlight.

"I can talk by wireless to a man over there," he went on, "and no one in New York can hear what is said. That is a forward step of tremendous significance.

"No," he continued, "I am not disclosing just now how I accomplish it. I simply say I can do it."

The possibilities of this invention brought up the question of the submarine cable's fate.

"I have been quoted as saying that wireless would supplant the cable lines," Marconi went on. "I did not say that. The telephone has not scrapped the telegraph lines.

"Each has its own function. So, I believe, it will be with wireless and the cables. If the cables are supplanted, that event will be far in the future."

It was suggested that with Mars waltzing near the earth, at least as near as it ever does in the great dance of the universe, the radio might pick up signals from the ruddy planet.

While cruising on the Electra in the Mediterranean last year Marconi caught strange sounds with a wave length of 150,000 meters. These sounds were not regarded as of earthly origin and are still a mystery.

"I can't say that I am listening for messages from Mars," Marconi said. "I do not say that it is possible to talk to Mars or any other planet. I do not say that it is impossible.

"There is so much yet to be learned about radio communication. The ether waves may be everlasting as far as we know. There is apparently no reason why they cannot go on radiating through immeasurable space.

Interplanetary Radio Not an Impossibility

"It may some day be possible to communicate with intelligent beings on another planet—assuming, of course, that at least one of the other planets is inhabited.

"A key to interplanetary communication might be given by mathematical relationships. These relationships, we may say, hold true through the universe."

Marconi paused for a moment. He may have been thinking of some Einstein with disturbing declarations that one plus one are not two everywhere.

"Assuming that we could flash messages to another world," he resumed, "the next difficulty would be in making ourselves understood. Conversely, even if messages came to us from another planet, they would be a meaningless jumble without a common key.

"By repeating over and over again the fact that one plus one equals two it might eventually be possible to create common symbols between ourselves and beings millions of miles away. We can let our fancy soar then to the gradual development of a cosmic language."

Marconi was willing for the moment to let his thought range through the vast reaches of interstellar space. It was another matter when the spirit world was mentioned.

A. Conan Doyle, Sir Oliver Lodge and other psychics have toyed with the idea that spirits might bridge the gap between this world and the spirit planes by radio.

"Do you believe spirits might talk to men by radio?"

Marconi smiled slightly and gave an almost imperceptible shrug of his shoulders. He waved his hand to indicate his unwillingness to discuss the subject.

The inventor took up his receiving set again. It was so tuned that it captured an orchestral melody streaming out to sea.

Greatest Wireless Progress Has Occurred in America

"Twenty years ago I said wireless would have its greatest development in America." Marconi remarked, as he arose again and walked toward the door. "That prediction has come true.

"More persons in the United States are interested in wireless than in any other country of the world today. When so many minds are engaged on a subject, it is only natural that surprising developments should result."

As a parting word, he said he would soon begin experiments off the coast in an effort to flash a message around the world. He also remarked that he was going to lecture on some of his latest radio discoveries.

The man before whose necromancy even the tradition of Merlin pales then retired to his cabin to resume work on his experimental notes.

Out toward the stern, a dozen barefooted sailors were washing the deck. Sun-bronzed Sicilians, Neapolitans and Genoese, they were scrubbing the planks which were being sluiced with water drawn in buckets from the river.

The sight of the dark-haired, bare-armed and bare-footed seamen conjured up a picture of the rolling Mediterranean, studded with many-oared galleys in the days of Imperial Rome.

In those far-distant days the boats of commerce and the long boats of war alike scudded to harbor when a storm impended. Navigation was almost impossible during the winter months.

Even the development of the sail did not lessen the terrors of a storm at sea, and it was not until the age of steam that the odds favored man against the ocean tempest.

Wireless Has Reduced the Perils of the Sea

It was left to the wireless to increase man's safety at sea. And on the upper deck, as the sailors scrubbed the lower, sat the man who had done more than any other to make radio a marvelous reality.

One of his newest inventions is that of a device which might be called a radio lighthouse by means of which radio waves can be sent in a given direction in a beam, instead of being scattered to all points of the compass.

By using a revolving beam of electrical radiation, Marconi says it will be possible for ships in foggy weather to learn the bearing and position of the "lighthouse." This invention, he believes, is another step in the safeguarding of navigation.

And what of the early environment and the studies of this forty-eight-year-old genius who is a Senator of the Kingdom of Italy and was High Commissioner to the United States during part of the war?

He was born April 24, 1874, in a little house adjoining the Marescalchi Palace, one of the famous princely residences of Bologna, Italy, which is the seat of a university dating back to the Middle Ages.

He was the son of Joseph Marconi and his second wife, who was Anna Jameson, an Irish girl.

It is interesting to note in this connection that the great inventor's wife also was an Irish girl, the Hon. Beatrice O'Brien, daughter of the fourteenth Baron Inchiquin, whose ancestry is traced back to Brian Boroihme, through his third son, Dermot, King of Munster in the twelfth century. Marconi and the Hon. Beatrice O'Brien were married in 1905 in St. George's, Hanover Square, London.

As a schoolboy, Marconi did not attract attention for precociousness. Some years ago a schoolmistress who taught Marconi in Florence expressed astonishment at the genius Marconi has displayed.

"Who would have thought," she said, "that the little Englishman, as we used to call him, because of his slight figure and sedate manner, would turn out a genius? He was always a model of good behavior, but there were no signs of mental brilliance.

"I am afraid he got many severe smackings, but he took them like an angel. At that time he never could learn anything by heart. It was impossible, I used to think. I had never seen a child with so defective a memory."

Marconi Showed Early Interest in Electricity

But if his mind limped on the ordinary subjects that are crammed into a boy of his age, he developed an abiding interest in electricity.

He made his first wireless experiment on his father's estate at Bologna, when sixteen years old. Two years later he made his first discovery. He found that a wireless message sent between stations on level ground was also recorded on a receiver placed on the other side of a large hill.

From then onward his progress was so rapid that when twenty-one years old he went to London to demonstrate the practical value of his experiments. He conducted his tests before representatives of the British army and navy, the general postoffice and lighthouse service.

Marconi was twenty-five years old when he sent his first message across the English Channel. The French Government was interested in his inventions and that trans-channel achievement convinced official France of their practicability.

The inventor's mind then turned toward the problem of sending messages across the ocean. He spent two years in study and experiment and then, on December 6, 1901, he landed at St. John's, Newfoundland, to receive messages from the other side.

Six days later came the great test. For a half hour Marconi and his two assistants sat with receivers ready. Then a sharp click of the tapper was heard. It was the signal that something was coming. A moment later came three little clicks—the letter "S"—tapped out in Poldhu, Cornwall.

Trans-Atlantic Radio Established in 1902

In 1902 Marconi saw trans-Atlantic communication firmly established, and in 1904 the great liners of that day began a daily news service with bulletins wirelessed from land stations.

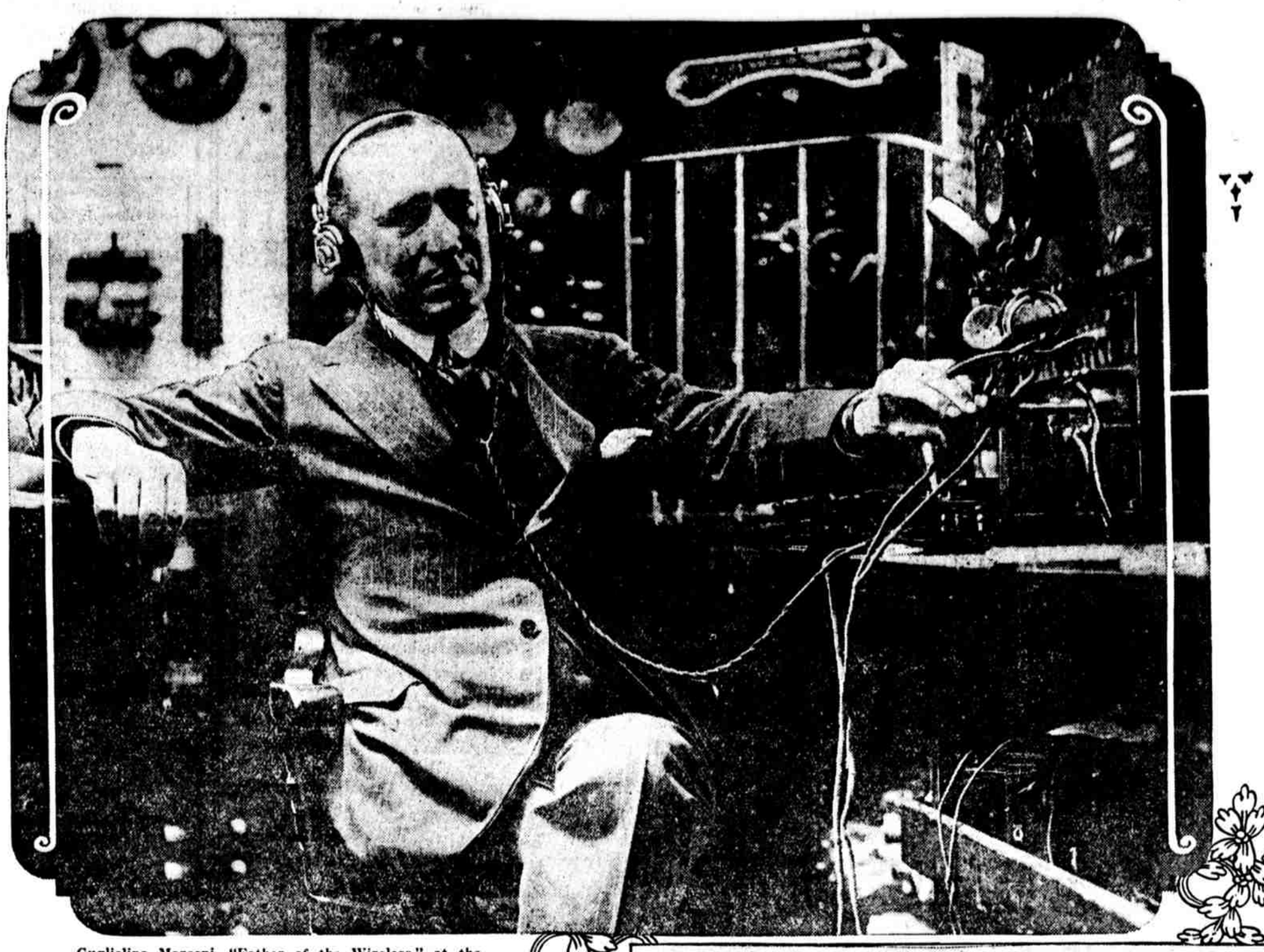
One of the proudest moments in Marconi's career came in 1902, when he submitted to the Czar of Russia and the King of Italy wireless messages he received on board the Italian cruiser Carlo Alberta during a voyage from England to Kronstadt harbor.

Early in 1903 he sent a message from the President of the United States to the King of England, thus inaugurating radio communication between Cape Cod, Mass., and Cornwall.

The years following that period marked Marconi's promotion of the Wireless Company of America and other projects, together with the gradual extension of wireless communication down to the present day, when the atmosphere is so crowded with messages that plans are contemplated for a radio-control system establishing wave lengths for various classes.

Marconi is one of the few men in the world who have seen their specialties start from a trifling beginning and reach the high scale of accomplishment that wireless has reached today.

The inventor is still in the prime of physical and mental vigor. He has played a commanding part in the radio of yesterday; he has a unique place in the radio of today, and now he is turning confidently to a yet greater tomorrow.



Guglielino Marconi, "Father of the Wireless," at the switchboard in his radioroom aboard his famous experimental yacht "Elettra"

Tinkers With Wireless on Ex-Archduke's Yacht

THE yacht Elettra, Marconi's floating headquarters, once was owned by an Austrian Archduke, a cousin of the late Emperor Franz Joseph.

It was interned in England when the war began and was acquired by the inventor three years ago. It has a crew of thirty, including officers.

In a private laboratory on the yacht Marconi carries on many of his experiments. The vessel also has two wireless rooms, the larger on the main deck.

From this vessel the inventor plans to send a radio message around the world in the near future. The longest messages now are those between England and Australia.

Messages to Other Worlds Long Dream of Scientists

The idea of communicating with other planets has long fascinated grave scientists bent on solving some of the riddles of the universe.

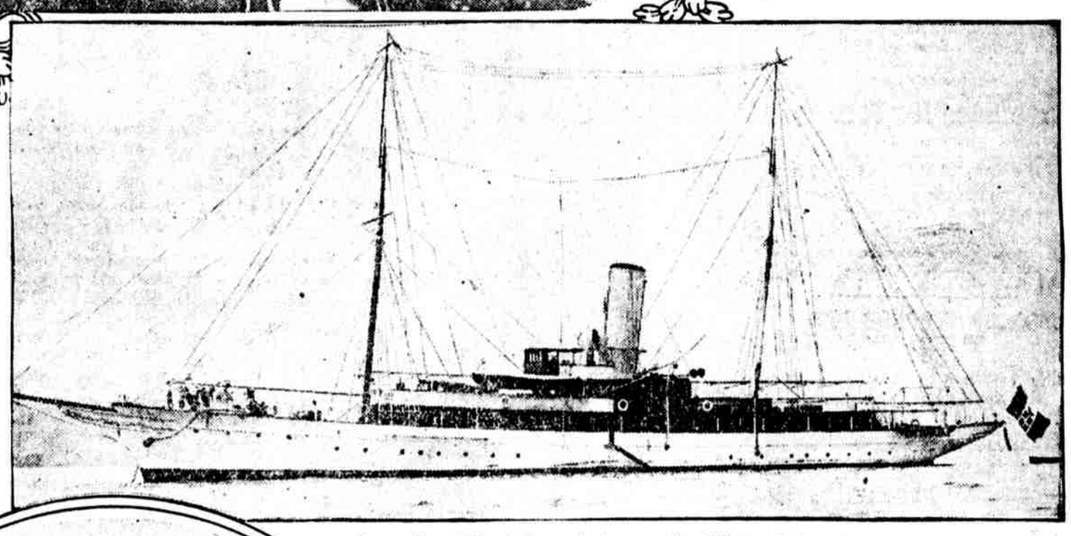
One suggestion was the placing of giant heliographic mirrors in the Sahara desert, or at some point in this country, so super-flashes of light might be "winked" into space.

Preston B. Bassett, a research engineer, recently proposed the flashing of light signals from 120 high intensity searchlights of 1,000,000,000 candlepower and their concentration into a single beam of 120,000,000,000 candlepower which, he said, could easily be read from Mars.

Dr. Charles P. Steinmetz, electrical wizard, who recently produced an artificial lightning bolt, estimated that towers 1,000 feet high would have to be built to send a wireless message to Mars.

As an alternative for the towers, which might prove difficult to build, Dr. Steinmetz suggested metal balloons filled with helium gas and sent up several thousand feet.

If a radio message could be projected to Mars it would reach there in about 4 minutes and 22 seconds when the planet is nearest the earth and in about 22 minutes when Mars is farthest away.



Marconi's million-dollar wireless yacht "Elettra," in which he came recently to this country. He is conducting an elaborate series of experiments with a view to sending radio messages around the world

The speedy power tender of the "Elettra," with the flag of Italy at the stern, about to take the inventor to the Island of Manhattan from the anchorage in the Hudson River

"The Wizard of Wireless" on the bridge with Captain Lauro Raffaele, skipper of the "Elettra"

Marconi's Life Marked By Progress in Radio

MARCONI made his first wireless experiments in 1890 when sixteen years old.

At twenty-one his discoveries were so important that he gave demonstrations in England before Government representatives.

When he was twenty-five he sent his first message across the English channel.

On December 12, 1901, when twenty-seven years old, he heard the first message flashed across the Atlantic ocean by his system.

In 1904 Marconi established a daily news service by radio on Cunard liners.