

# RADIO BROADCAST

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## C Q D

The Story of the First Sea Rescue by Radio as Told by Jack Binns Who Became a Radio Hero in the Old Days when Radio Was Wireless and a Ten-Inch Spark Coil and a Magnetic Detector Was the Ultimate in Apparatus

By ALFRED M. CADDELL

Serious accidents on passenger liners at sea are rare enough these days. Just stop for a moment and see if you can remember when the last great disaster at sea occurred. The war years should not be counted, for the sinking of the *Lusitania*, for example, was not due to faulty navigation or the luck o' the sea.

The fact is that radio has so aided navigation that real accidents simply don't happen. Every big vessel is in constant touch with both shores of the ocean during the entire passage, the ship's chronometers are corrected twice daily by radio time signals, and the radio compass guides the big ships in time of fog or heavy weather. The shore radio compass is available on almost every coast for every ship, small or large.

We have grown to take radio almost for granted, as far as its use in marine telegraphy goes. The public expects great things of the radio now—and isn't disappointed. But it was not so long ago that the radio waves had to prove their usefulness. Then, even the big ships boasted but one operator who could be at his set only a part of the day. Sets would not send very far, and the apparatus was not too dependable. The public, if it gave much consideration to radio at all, was somewhat skeptical.

But when radio saved the lives of thousands at sea in January, 1909, when Jack Binns at the key of the *Republic*, sent out distress calls which gave him the aid of the land station nearest him and the many ships around the scene of the disaster, Americans began to feel that maybe this radio thing had something to it after all.

Jack Binns has given me this fascinating story of the *Republic* himself, exactly as it happened.—A. M. C.

**I**T WAS four o'clock Saturday morning, January 23, 1909. The steamship *Republic*, in command of Captain Inman Sealby, had left New York for Liverpool at five o'clock the evening before, with 1,600 passengers on board. Jack Binns was the one wireless operator on the ship. Almost immediately upon clearing Sandy Hook the ship had run into a thick fog bank, and the automatic fog-horn was set going. Binns was kept busy at the key until midnight, sending and receiving commercial messages, and exchanging "location" reports with other ships and stations on shore. And then he turned into his bunk for the night.

Like all ship operators Binns went to sleep with a more or less alert mind. All went well until eight bells, and then—

Awakened by the sudden change in the fog signals, Binns sat upright on the edge of his bunk, and listened. One second, two seconds, three—

A tremor ran throughout the ship. There was terrific crashing. Rushing from his bunk into the operating room which was situated on the aft-port side of the ship, he peered out through the darkness.

Crumpled up like the bellows of a concertina, the lower part of the colliding ship's

bow had hit the *Republic* full and square in her engine room compartment while the upper part, plowing its way through the cabins on the deck, hung over it, a menacing mountain of twisted steel. The roof of the wireless cabin collapsed; part of the cabin itself was wrenched away.

A strong current was running, swinging the colliding ship and the *Republic* around and twisting her davits, stanchions and beams. The telephone between the wireless cabin and the bridge was destroyed. At a glance—it all happened at once, it seemed—Binns took in the situation. He was standing between life and death. Unlike many others on the ship his intelligence was not numbed. He got into action.

Was his wireless set in working order? Was the antenna intact?

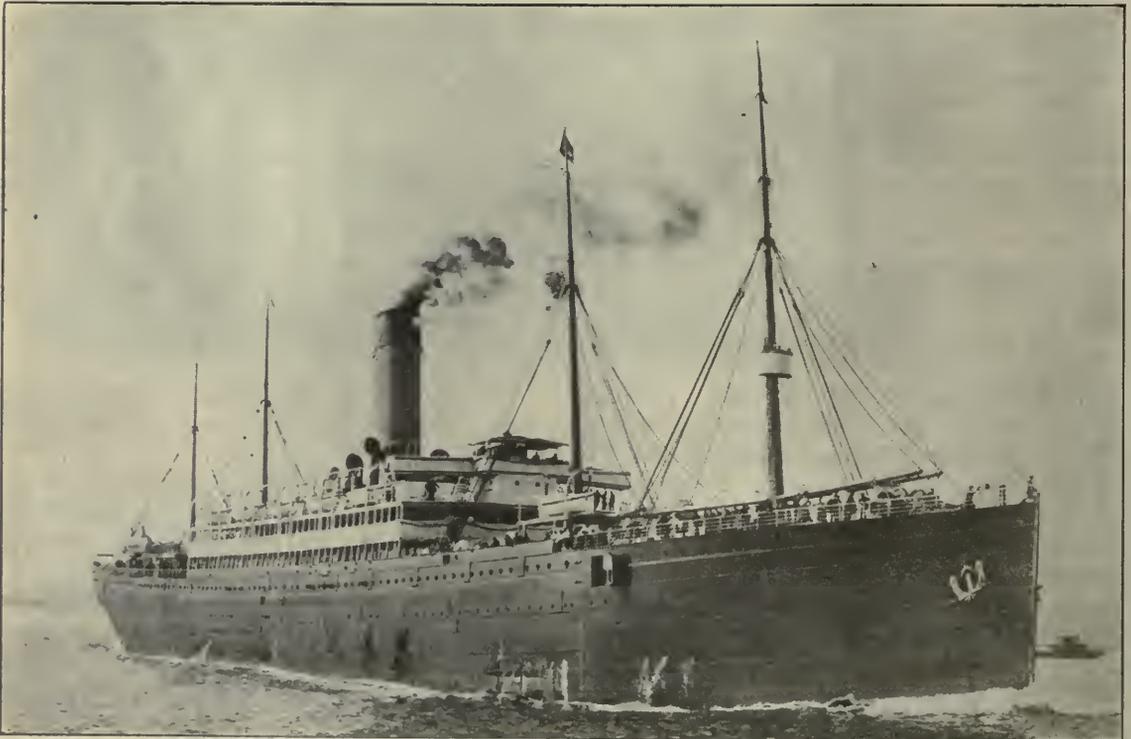
"The system we used at that time enabled me to find out very quickly," said Mr. Binns, when the writer interviewed him in his office at the New York *Tribune*. "I had a transmitting apparatus consisting of a ten-inch spark coil which was run from the ship's lighting mains and could be used either for untuned sending at

the natural period of the aerial or with a tuned circuit which was an inductance and condenser of Leyden jars. On the other hand, my receiving equipment consisted of a magnetic detector with a Franklin tuner which was one of the new pieces of apparatus of that day. But, judged from present standards, that tuner was very crude.

"We were transmitting with what is known as plain antenna, and unless the antenna was up and thoroughly insulated, it was impossible to get a spark. I had just time enough to work the key and find out that the antenna was still up when the lights went out. All the machinery of the ship, including the generators, had been almost immediately put out of commission.

"I had jumped to the key immediately—I think that not more than three seconds had elapsed since the vessel had struck us. Although I had a vague idea what had happened, I didn't know the exact details. What I did know was enough. As the vessels were swung around by the current I saw my cabin being ripped away.

"When the ship's lighting current went off,



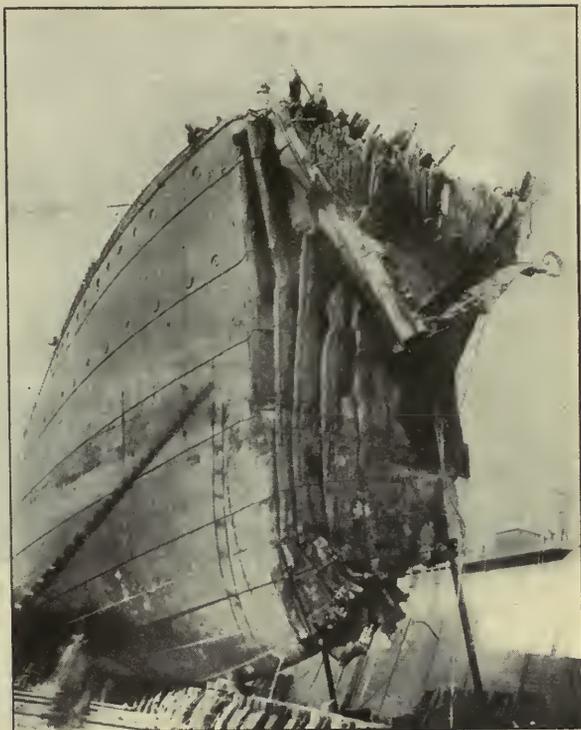
THE "REPUBLIC"

Which was the scene of the radio drama in which Jack Binns was the chief actor one exciting day in January, 1909

I changed over to our storage batteries for transmission power. We carried these batteries as an emergency reserve. When we used the batteries to operate the spark coils, our range was limited to approximately sixty miles. It was still dark and foggy. The air was biting cold. I put on as many clothes as I could find, bundled an overcoat around me, and began sending out CQD, which at that time was the distress call.

C Q D

THERE was little on the air at that time of the night. We were, as I found out later, about sixty miles away from the Siasconsett station on Nantucket Island, just on the verge of communication with the shore and that was all. It seems that Jack Irwin, the man on watch at Siasconsett, had had a very quiet night and had dozed off to sleep. As a result his fire had died down and presently he



#### WHAT HAPPENED TO THE "FLORIDA"

This is all that remained of her bow after the collision. This photograph was taken in a Brooklyn dock



JACK BINNS

Photographed in 1908 in his uniform of an English Marconi ship operator

began to feel uncomfortably cold. He woke up with a start so suddenly, in fact, that he became wide awake. He was just in the act of putting on more coal when he heard my call. He dropped the coal, jumped over to the key and replied instantly. I told him we were in distress, that two vessels were in distress, that I did not know at that moment where we were, nor the extent of the damage to either one of us, but told him I would get the information from the bridge as rapidly as possible, and asked him to keep everybody off the air until I could get the information through. However, I had no sooner sent this message than I received word from Captain Sealby, giving the damage done by the collision and the position of the ship. When I conveyed this message to Siasconsett, Irwin immediately sent out a general distress call. The steamship *Baltic* of the White Star Line was the first to answer the call.

"During this time we were drifting. The captain had absolutely no control of the ship. We had found the vessel which struck us, and learned that it was the Italian steamship *Florida* with immigrants bound for New



THE "BALTIC"  
Which aided in the first radio rescue

York. She had not suffered as much as the *Republic*, and it was decided to put all of our passengers and crew on board her. Her engines were undamaged and the ship was controllable. But transferring the passengers from the *Republic* was not an easy task, for the *Florida* was a very small ship and had nearly 2,000 passengers on board, the majority of them being refugees from the earthquake at Messina, in Italy. The captain of the Italian ship, a young man by name of Ruspini, handled the situation from his end with a surprising degree of coolness.

"About noon of that day—which was Saturday—the *Baltic* was within ten miles of the *Republic*. I could tell by the strength of her signals, although at that time we had no means of knowing definitely how far away any particular station or ship was, and I had to rely on the sensitiveness of my ears to arrive at that conclusion.

#### EIGHTEEN HOURS CONSTANT DUTY AT THE KEY

THE fog had, if anything, grown worse than it was at 4.00 o'clock that morning—and of course the *Baltic* had to reduce speed for fear of running into us before she could check her speed. From twelve o'clock until six in the afternoon I remained constantly at the key trying, in conjunction with the officers of both ships, to get the *Baltic* alongside. To accomplish this we exploded detonating bombs

and fired sky rockets. When one ship exploded bombs, the officers on the other would try to learn approximately the direction from which the sound came. We were doing this all afternoon on both ships, but although we were within an approximate radius of ten miles of each other, none of the explosions had been heard.

"Six o'clock came and it was still foggy and dark. Presently we had reduced the number of our bombs to where each of us had only one left. According to our soundings, we were aware that the *Republic* had been sinking steadily at a rate of about one foot an hour. Unlike the sound of the voice or other noise, wireless of course was not directional, and inasmuch as we had no electrical means of determining the exact location of each other we might just as well have been a thousand miles apart.

"At this point we checked up, carefully with each other the time on our chronometers. Each ship carried three chronometers, the mean average of which was taken as the accurate time. As soon as we had checked up on that it was decided that the *Republic* should fire her last bomb at a certain precise second, and they would listen very attentively to hear it. That second arrived, and Boom! went the bomb. But it proved in vain—they did not hear it. It looked like a forlorn hope. The *Republic* was gradually sinking, night had come upon

us, the *Florida* was floating somewhere in the neighborhood fearfully crowded with four thousand passengers and crew aboard that small ship. What were we to do?

"We made arrangements for the *Baltic* to explode her last bomb, and then I went forward on the bridge. By this time there were only eight on board the *Republic*. We had plenty of time, so seven of us formed ourselves in a circle with our faces outward while the quartermaster stood by the chronometer. He was to indicate to us by moving his arm upward the exact second the explosion of the last *Baltic* bomb was to take place. He raised his arm and—we listened.

"An operator's sense of hearing undoubtedly becomes more acute than another person's because of his constant training in straining his ears for faint code signals. Somehow or other, within about five seconds after the quartermaster had raised his arm, I heard very faintly what I thought might be the sound of a bomb. I turned to the third officer who stood next to me and he said he thought he had heard it too, although he wasn't exactly sure. It had been prearranged that none of us were to move in case we heard the sound, this in order that we could check the direction and get our bearings on the *Baltic*. Consequently, the officers took a bearing on the direction the sound came from, according to the third officer's and my own sense of hearing, and then I went back to the operating cabin to transmit steering directions to the *Baltic*, based on those bearings. We cautioned them to come very slowly because of our helplessness.

"Had we really heard the *Baltic's* last bomb? Were the steering directions I had just transmitted going to bring her alongside? Those were tense moments.

"In about fifteen minutes we heard the fog horn of the *Baltic*. The last bomb really had been heard beyond all doubt.

"'You are proceeding on the right course,' was the message that I then sent the *Baltic*. 'We can now hear your fog horn. Come very cautiously as we have no lights.'

"And then, fifteen minutes later I heard a tremendous cheer. I knew of course that it couldn't come from the members on our own ship, as there were only eight of us. I looked out of the cabin. There was the *Baltic* coming up right alongside of us. Her passengers had

lined the decks to keep a sharp lookout for us.

"It was then a little after seven o'clock Saturday evening. It had taken fifteen hours of the most trying and intensive work to bring the *Baltic* alongside during the dense dark fog, and considering the crude apparatus we had at that time I have always considered it a great achievement, for a more difficult set of circumstances could hardly be imagined.

"After our officers conferred with Captain Ransom of the *Baltic*, she proceeded to where the *Florida* lay, as Captain Sealby felt very anxious about the safety of his passengers, especially since the *Florida* was badly damaged and excessively overloaded.

"Just about this time the fog suddenly lifted and the weather turned into a nasty driving rain. The *Baltic* found the *Florida* and the combined crews of the ships immediately set about transferring all the *Republic's* and *Florida's* passengers to her own decks. Throughout the night in the cold, drenching rain these crews labored transferring 4,000 passengers through a dangerous long rolling swell. Thus within the short space of twenty-four hours there had been two major transfers of passengers at sea, and all accomplished without loss of human life.

And when daylight broke the next morning, Sunday, there was one of the greatest concourses of ships ever seen on the seas. Everywhere, as far as the eye could see were ships.

Every liner and every cargo boat equipped with wireless that happened to be within a three hundred mile radius of the disaster, overhearing the exchange of messages between the *Baltic* and *Republic* had gathered around and stood by ready to be of whatever assistance they could. It was a fine testimonial to the value of wireless. Shortly after daybreak the *Baltic* proceeded to New York and the *Florida* also proceeded at slow speed, convoyed by two or three other ships that were standing by. And then relief ships cared for the badly damaged *Republic*.

"During all this time, of course, the *Republic*, had been slowly sinking, and it was decided to tow her into the shallow waters off Nantucket. Two revenue cutters, the *Gresham* and *Seneca*, thereupon took line on the bow of the *Republic* in tandem fashion, and the Anchor Line *Furnessia* tied up on the stern to act as a rudder for the disabled ship. All available



means were taken to keep her afloat. The tow started at ten o'clock Sunday morning and continued until seven o'clock Sunday night, but no actual progress had been made, for although the revenue cutters pulled her forward, a cross current was running against



them at practically the same speed, so that all four ships virtually stood still.

"Finally the *Furnessia* cast off, for the stern of the *Republic* was under water. The

water was already beginning to creep into my cabin and while I was wondering whether I should go forward or wait until the captain sent for me, the third officer came aft and said the captain had issued orders to get ready to abandon the ship and that I was to come forward. I didn't hesitate about that. The rest of the officers were there and we tried to persuade Captain Sealby to abandon the ship with us. But he refused to do so. Instead he asked for a volunteer to stay with him. Everyone volunteered. Captain Sealby then chose Second Officer Williams on account of his being the senior unmarried man in the group and also because Williams knew the Morse code and could signal with a lantern.

"At this time the *Republic* was attached to the *Gresham* by a steel hawser. As soon as we put off in the Captain's gig we pulled over to the *Gresham*, told the captain of that ship the condition of the *Republic*, and asked him to pay out a nine-inch rope hawser and stand by, ready to cut the rope hawser as soon as he got a signal from the bridge of the *Republic* that the ship was about to go under. It had been previously agreed that Captain Sealby was to flash a blue Coston light when that moment did arrive. This the captain of the *Gresham* did. He stationed a man with an ax over the hawser, with instructions to cut it the moment he saw the blue light. We stayed off in the life boat waiting for developments and holding ourselves ready to go to the rescue of Sealby and Williams the moment the ship went down.

"Fortunately there were four or five other ships in the vicinity watching the proceedings. Each one played its searchlight on the *Republic*. By the aid of the many searchlights the two lone figures could be seen pacing to and fro on

the uptilted bridge. And then came the signal of the blue light. Then we saw one of the men jump on to the rat-lines of the foremast, climb up to the top of the mast and wait. The other man ran forward, climbed up on the rail, and taking one last long look at the little cabin on the bridge turned and dove forty feet into the sea.

"For one minute more the bow of the *Republic* trembled above the waves and then sank.

"We rowed over to the spot where it went down. The light of each observing ship was trained upon the spot. Fortunately a quiet sea was running at the time, but even so it was most difficult to see very far from the open boat as the lights, intercepted by the crests of the waves, threw darkened shadows over most of the surrounding waters. We grew very anxious about Captain Sealby and Mr. Williams, for certainly no man could long survive the cold of those wintry waters.

"For twenty minutes we rowed around, earnestly but yet aimlessly, for we did not know where to go. On all sides we saw the glaring searchlights—but nowhere could we discern any sign of life in the sea. I don't think any more sorrowful moment ever came into the lives of the men in that open boat, not to mention those on the nearby ships, for Captain Sealby and Second Officer Williams had nobly upheld the tradition of the sea. But the length of time did not diminish our hopes.

"This collision at sea had indeed brought forth a series of climaxes. First the wireless apparatus, crude as it was, had brought Siascsett to our aid; the very last bomb that the *Baltic* had came within an ace of being in vain, and now—

"Suddenly, to our right, from out the murky blackness of the waters of the sea, a revolver shot rang out. We pulled over in that direction immediately, and there we found Captain Sealby hanging on to a floating crate, so nearly exhausted that he had had just sufficient strength to pull the trigger of his revolver. 'Williams over there', he said, 'Get him.'

But we pulled the captain in then and there, and then rowed in the direction he had indicated. And sure enough we found Williams too, clinging to a hatch cover that had floated off the *Republic* when she went down."



It was fitting *denouement* to one of the greatest near-tragedies of the sea. And a tragedy indeed it would have been had it not been for wireless and an operator who had initiative, skill, and the fortitude to stick to his post for 48 hours without eating or sleeping.

Jack Binns was born in Lincolnshire, England, in 1884. Early in his teens, he became interested in the electrical sciences and attended the technical school of the Great Eastern Railway, where he obtained a thorough grounding in electricity and learned the Morse telegraphic code. About that time Marconi, having made his bow to the scientific world, was developing a company over in England. Binns made application for a position as operator and was quickly accepted. He became connected with the Belgian Marconi Company and was sent to sea on a German ship.

At that time there was competition between the Marconi system and the Slaby-Arco system, a German system in use on German ships, but the Marconi organization was better developed and they won out. About twenty operators were picked for service on German ships, Binns among them, and during his connection with that company he did considerable experimental work, chiefly in long distance reception from the so-called high power stations at that time—the Poldhu and Cape Cod stations. This experimental work took him not only across the Atlantic but up around Spitzbergen in the Arctic Ocean and down in the tropics on this side of the Atlantic, through the Caribbean Sea and along the northern coast of South America, all of which work was in addition to regular trips made as operator on German ships.

About 1907 there was a great deal of agitation in Germany over the presence of foreign operators on board German vessels, who included not only Englishmen but Americans, Italians, Belgians, Danes, and even one Icelander. Consequently, in June, 1908, the German Government notified La Compagnie de Télégraphie Sans Fil (Belgian Marconi Company) that all foreign operators would have to be replaced with German operators by the end of July that year.

In August of that year, the German Government precipitated the second Morocco crisis. In its order, the German Government bluntly stated that in the event of war with Great Britain or any other European power the foreign operator on board a German ship would undoubtedly refuse to notify the commander of the fact that war had broken out and consequently those ships would be captured by

enemy cruisers. Therefore, Binns was among the operators replaced, and after one or two shifts to various positions with the Marconi company, was assigned to the steamship *Republic* which post he had held for a period of three months.

During the war years, he became so proficient in flying that he was engaged as instructor in the Canadian Flying Corps, and made his headquarters at Toronto. Here he taught not only piloting, but instructed aviators in radio and the code. Radio indeed has been the outstanding feature of his life's work. He was one of the first to prove its value in an emergency at sea. He was one of the organizers of the New York Newspaper Club, and is now the Radio Editor of *The New York Tribune*.



LT. MAYNARD, JACK BINNS, AND DANIEL FROHMAN

In 1920, ready to bombard New York with "broad-sides" on the Actor's Fund