

MANY GREAT LINERS PAID TOLL OF THE SEA

Republic Was First to Utilize the Wireless in Calls for Aid.

BALTIC HAS RESCUE RECORD

Naronic, Which Was Never Heard From, Another Ship Supposed to Have Hit Iceberg.

Other Great Losses of Life.

The following are some of the previous heaviest counts in the toll of death marine disasters have cost in the last half century:

	Lives Lost.
1867—Royal Mail steamers Rhone and Wye	1,000
1878—White Star liner Atlantic	547
1890—Turkish frigate Ertogrul	540
1891—Anchor liner Utopia	574
1894—Steamship Norge	600
1898—Steamship Bourgogne	571
1904—Steamboat General Slocum	1,000
1905—Japanese warship Mikasa	599

The call of the rescue fleet to the sinking Titanic was but one of a series of similar achievements made possible in recent years through the wireless telegraph. The most remarkable rescue by wireless was the first, when, at 4 A. M. on Jan. 23, 1909, the White Star liner Republic, outward bound from this city for Mediterranean ports, and carrying 461 passengers, in a thick fog ran into collision with the Florida of the Lloyd Italiano Line, inward bound, 26 miles southeast of the Nantucket Lightship, and about 230 miles from this city.

The Republic was struck amidships, the bow of the Florida penetrating her engine room, and plunging the ship into darkness. The Republic's wireless apparatus, however, remained undamaged. Immediately a call for help was sent by means of it to all vessels within reach by "Jack" Bluns, the wireless operator, whose achievement made him famous. Half a dozen ships, including the Baltic, one of the rescuers in the present disaster, rushed to the assistance of the vessels.

The Republic began sinking almost immediately, and within two hours her passengers were transferred in small boats to the Florida, whose bow was badly damaged, but which was in less danger. Twelve hours after the collision, the Baltic, foremost of the rescuers, found the Florida by means of the wireless and her submarine bell, and took the Republic's passengers and those of the Florida aboard, the transfer taking place in small boats by moonlight over a rough sea. The Republic, which had been reached and taken in tow by the revenue cutter Gresham a little later, sank that night in 45 fathoms of water, Capt. Inman Sealby, her commander, and the fifty remaining members of her crew escaping from her just before she went to the bottom. The Florida was later towed into this port. Six lives had been lost in the collision, two on the Republic and four on the Florida. The Republic's passengers were brought back to this port on the Baltic.

The Baltic herself was damaged in a collision not long afterward, when, on June 30, 1910, in a fog she ran into the oil tank Standard, 1,000 miles east of Sandy Hook. Her bow was badly smashed and one of her sailors was lost. Yet she was able to continue under her own steam to this port, which she reached with a great six-foot hole gaping in her bow just above the water line and but flimsily covered with canvas.

More recently still, on Sept. 20, 1911, the giant White Star liner Olympic, which until the launching of the Titanic was queen of the seas, the largest ship afloat, was rammed in collision with the British cruiser Hawke. The commander of the Olympic was Capt. E. J. Smith, who was also skipper of the Titanic in the present disaster. A great hole was stove into the Olympic's side, and she was forced to put back to Southampton.

All her passengers, including a number of noted persons, were safe. The Hawke, more badly damaged than the Olympic, proceeded under her own steam to Portsmouth. Subsequently the British Admiralty Court, investigating the accident, exonerated the Hawke from blame, holding that the liner had, by suction of her own engines, drawn the smaller warship out of its course.

Of former collisions of steamships with icebergs the last before that of the Niagara, reported yesterday, was the encounter of an iceberg by the Anchor liner Columbia, from Glasgow, on Aug. 2, 1911. The collision occurred in a dense fog, when the Columbia was 180 miles north and 57 miles east of Cape Race. Huge tons of ice fell upon her forecastle, and her stem was smashed into the water line. The upper parts of her bow plates were forced back 10 feet. Several members of the crew and one passenger were injured. The Columbia was able to complete her voyage to this port.

On July 8, 1907, the North German Lloyd liner Kronprinz Wilhelm struck an iceberg off the Banks in the uncertain light of early morning. Her bow was dented and her starboard side was scraped badly by the ice, into which she had plowed her way at a speed of 16 knots an hour. The steamship Voltorno, on her way to this city from Rotterdam, also had a narrow escape from an iceberg in May, 1909, when, off the coast of Newfoundland, she plowed her way into an ice field which ground deep scars into her sides. Some bergs passed so near her that great chunks of ice fell on her decks, but she escaped without serious damage.

The giant freighter Naronic of the White Star Line, which disappeared from the eastward winter track across the Atlantic some time after Feb. 11, 1893, with seventy-four persons aboard, is also believed to have encountered an iceberg and to have gone down in collision with it. The facts of this disaster were never ascertained. Her overturned lifeboats were found floating derelicts long afterward 300 miles southeast of Newfoundland.

Among the great marine disasters on record that have resulted in the loss of

1868, Jan. 11—Steamer London, on her way to Melbourne, foundered in the Bay of Biscay; 220 lives lost.
 1868, Oct. 5—Steamer Evening Star from New York to New Orleans, foundered; about 250 lives lost.
 1867, Oct. 29—Royal Mail Steamers Rhone and Wye and about fifty other vessels driven ashore and wrecked at St. Thomas, West Indies, by a hurricane; about 1,000 lives lost.
 1870—Indian Line steamer City of Boston, left New York with 117 passengers and was never heard from.
 1871, July 30—Staten Island ferryboat West-

field exploded in New York Harbor; 100 lives lost.

1873, Jan. 22—British steamer Northfleet sunk in collision off Dungeness; 300 lives lost.

1873, Nov. 22—White Star liner Atlantic wrecked off Nova Scotia; 547 lives lost.

1873, Nov. 23—French Line steamer Ville du Havre, from New York to Havre, in collision with ship Loch Earn, sank in sixteen minutes; 140 lives lost.

1874, Dec. 26—Immigrant vessel Cospatrick took fire and sank off Auckland; 476 lives lost.

1875, May 7—Hamburg mail steamer Schiller wrecked in fog on Scilly Isles; 200 lives lost.

1875, Nov. 4—American steamer Pacific in collision thirty miles southwest of Cape Flattery; 236 lives lost.

1877, Nov. 24—United States Sloop of War Huron wrecked off North Carolina coast; 110 lives lost.

1878, Jan. 31—Steamer Metropolis wrecked off North Carolina; 104 lives lost.

1878, March 24—British training ship Eurydice, a frigate, foundered near the Isle of Wight; 300 lives lost.

1878, Sept. 3—British iron steamer Princess Alice sunk in collision in the Thames; 700 lives lost.

1878, Dec. 18—French steamer Byzantin sunk in collision in the Dardanelles with the British steamer Rinaldo; 210 lives lost.

1879, Dec. 2—Steamer Borussia sunk off coast of Spain; 174 lives lost.

1880, Jan. 31—British training ship Atlanta, left Bermuda with 290 men and was never heard from.

1881, Aug. 30—Steamer Tautou wrecked off the Cape of Good Hope; 200 lives lost.

1883, July 3—Steamer Daphne turned turtle in the Clyde; 124 lives lost.

1884, Jan. 18—American steamer City of Columbus wrecked off Gay Head Light, Mass.; 99 lives lost.

1874, April 19—Bark Ponema and steamship State of Florida sank in midocean after collision; 145 lives lost.

1884, July 23—Spanish steamer Gijon and British steamer Lux in collision off Finistere; 150 lives lost.

1887, Jan. 29—Steamer Kapunda in collision with bark Ada Melore off coast of Brazil; 800 lives lost.

1887, Nov. 15—British steamer Wah Young caught fire between Canton and Hongkong; 400 lives lost.

1888, Sept. 18—Italian steamship Sud America and steamship La France in collision near the Canary Islands; 89 lives lost.

1889, March 16—United States warship Trenton, Vandalla, and Nipsic and German ships Adler and Eber wrecked on Samoan Islands; 147 lives lost.

1890, Jan. 2—Steamer Persia wrecked off Corsica; 130 lives lost.

1890, Feb. 17—British steamer Duburg wrecked in China sea; 400 lives lost.

1890, March 1—British steamship Quetta foundered in Torres Straits; 124 lives lost.

1890, Sept. 19—Turkish frigate Ertogrul foundered off Japan; 540 lives lost.

1890, Dec. 27—British steamer Shanghai burned in China Sea; 101 lives lost.

1891, March 17—Anchor liner Utopia in collision with British steamer Anson off Gibraltar and sunk; 574 lives lost.

1891, April 10—British ship St. Cathar's wrecked off Caroline Island; 90 lives lost.

1892, Jan. 13—Steamer Namehow wrecked in China Sea; 474 lives lost.

1892, Oct. 25—Anchor liner Romania wrecked off Corsica; 118 lives lost.

1893, Feb. 8—Anchor Line Trinairia wrecked off Spain; 115 lives lost.

1893, June 22—British battleship Pretoria sunk in collision with the Camperdown off Syria; 357 lives lost.

1894, Nov. 1—Steamer Walraro wrecked off New Zealand; 184 lives lost.

1894, June 25—Steamer Norge wrecked on Rockall Reef in North Atlantic; nearly 600 lives lost.

1895, Jan. 30—German steamer Elbe, sunk in collision with British steamer Crathie in North Sea; 335 lives lost.

1895, March 11—Spanish cruiser Reina Regenta foundered in Atlantic at entrance to Mediterranean; 400 lives lost.

1895, July 2—Steamship Bourgogne rammed British steel sailing vessel Cromartyshire and sank rapidly; 571 lives lost.

1904, June 15—Gen. Slocum, excursion steamboat, with 1,400 persons aboard, took fire going through Hell Gate, East River; more than 1,000 lives lost.

1905, Sept. 12—Japanese warship Mikasa sunk after explosion in Sasebo Harbor; 599 lives lost.

1907, Feb. 12—Steamship Larchmont in collision with Harry Hamilton in Long Island Sound; 183 lives lost.

1907, Feb. 21—English mail steamship Berlin wrecked off the Hook of Holland; 142 lives lost.

1907, Feb. 24—Austrian Lloyd steamship Imperatrix, from Trieste to Bombay, wrecked on Cape of Crete and sunk; 137 lives lost.

1907, January—British steamship Pengwern foundered in the North Sea; crew and 24 men lost.

1907, January—Prinz Waldemar, Hamburg-American Line, aground at Kingston, Jamaica after earthquake; 3 lives lost.

1907, February—French warship Jean Bart, sunk off coast of Morocco.

1907, March—Steamship Congo sunk at mouth of Ems River by German steamship Nerissa; 7 lives lost.

1907, March—French warship Jena, blown up at Toulon; 120 lives lost.

1907, July—Steamship Columbia sunk off Shelton Cove, Cal., in collision with steamship San Pedro; 50 lives lost.

1908, Feb. 8—Steamship St. Cuthbert, bound from Antwerp to New York, burned at sea off Nova Scotia; 15 lives lost.

1908, April 25—British cruiser Gladiator rammed by American liner St. Paul off Isle of Wight; 30 lives lost.

1908, July—Chinese warship Ying King foundered; 300 lives lost.

1908, Aug. 24—Steamship Folgenenden wrecked; 70 persons lost.

1908, Nov. 6—Steamship Talsh sunk in storm off Etoro Island; 150 lives lost.

1911, Feb. 2—Steamship Abenton wrecked; 70 lives lost.

1911, April 23—Steamship Asia ran aground; 40 lives lost.

1911, Sept. 5—Steamship Tuscapel wrecked; 81 lives lost.

1911, Oct. 2—Steamship Hatfield in collision and sunk; 20 lives lost.

1911, April 2—Steamship Koombuna wrecked; 150 lives lost.

Among the other but less disastrous accidents which have befallen big ocean liners in recent years, were the grounding of the White Star liner Suevic on March 17, 1907, on a rock near the Lizard, with 400 passengers and a crew of 160 aboard, all of whom were rescued, and the grounding of the German steamship, Peter Rickmers, at Zach's Inlet, L. I., when 73 persons were taken off safely in lifeboats.

On April 6, 1911, the North German Lloyd steamship Prinzess Irene went ashore off Fire Island, with her crew and 2,100 passengers aboard. She was stuck in the sand bar in a rough sea for nearly four days before the tide lifted her. Her passengers, transferred in lifeboats despite the rough sea to the Prince Friederich Wilhelm, her sister ship, reached this port several days late, but uninjured.

On Nov. 22, 1911, the steamship Prinz Joachim of the Hamburg-American Line, bound from New York to Kingston, went ashore near Samana Island in the Bahamas. Among her 87 passengers were William Jennings Bryan, his wife, and grandchild. All were taken aboard the

steamship Seguranca, which hurried to the Joachim's assistance. The Joachim was not damaged.

MODERN SAFETY DEVICES.

Watertight Compartments and Submarine Bells Usually Efficient.

In these days of progress in marine architecture, when the up-to-date liner is a floating hotel, with every device for the safety, comfort, and amusement of the passengers, the loss of such a vessel as the Titanic comes as a shock to steamship men, and especially to those who have been figuring on how to build "the largest vessel in the world." The Titanic, with her fifteen automatic self-closing bulkhead doors, was considered unsinkable, not only by the officials of the White Star Line, but by those who had made a study of modern shipbuilding.

Up-to-date vessels are all equipped with these water-tight compartments, which in time of danger are of primary importance. The Captain on the bridge, standing at the central control of the bulkhead doors, can, by the simple pressing of a single electric button, close every door the length of the vessel, and transform her in a few seconds into a craft which the modern shipbuilders have claimed would float with many of her water-tight compartments flooded.

If the electric signal indicated a minor accident in a particular part of the ship, by pressing buttons on the bridge her skipper could close the compartments in that section.

The Submarine Bell Device.

Another device for marine safety is the submarine bell signal, with which every vessel is fitted. These bells are also mounted on reefs and points of land. Their action is by wireless or hand ringing, and they come into play whenever two vessels approach within range or when a ship nears the land station to which they belong. This notification usually comes to the skipper or man in command of the bridge in time for him to change his course or check his headway. The range of notification is several miles. This device enables vessels swallowed up in the dense fogs off the banks or in mid-ocean to learn of each other's proximity long before any fog siren or sounding bell would be audible. It is also, of course, much more efficient than the most powerful searchlight.

Since their installation on the modern ocean liners many collisions have been averted by their use, it is said, and experts have declared that many a disaster of ships running on rocks or into collision could have been averted if these submarine bells had been in use. At Louisburg, Cape Breton Island, there is a station of this sort, and this is the nearest to the scene of the Titanic disaster. A station, however, is proposed for Cape Race. One example of where such a bell might have meant safety was the wreck of the steamship Princess May on Sentinel Island, Alaska. In this case a steamer was run high and dry on jagged rocks whose proximity was not realized.

One Test of the Bell.

As an example of the efficiency of the submarine signal bell the tug Eugene F. Moran was piloted from a point three miles out in the open sea to the Ambrose Channel Lightship by a man blindfolded. He followed the course by the guiding sound of the bell ringing some thirty feet below the surface of the sea. This took place on Feb. 31, 1909.

The Moran went down the lower bay to the Ambrose lightship and ran alongside to request that the submarine bell on board be kept ringing. In a short time the man who had the telephone headpiece connected with the microphone receivers at the bow of the tug reported that the bell was ringing. Three miles beyond the Hook Assistant Engineer Fay was blindfolded and the tug was put out of her course to confuse him. With the receivers at his ears, however, he corrected the course and brought the tug without much difficulty back to the Ambrose Lightship.

The receiving apparatus on the boats consists of two small tanks fastened to the skin of the vessel. In each tank two microphones are placed, immersed in liquid. These microphones receive the sound waves coming through the water and striking against the vessel's side. On the first of the year there were 138 such shore and light bell stations in the world, of which the United States had 52, Canada 14, and Great Britain 26.

Wireless Compass to Come Next.

Within a few months, with a new type of wireless equipment, which is Marconi's latest invention, steamships caught in a dense fog need have no more fear of it than they have now of the starlight or the morning's sunshine. This new device is known as the wireless compass. Marconi said in a recent interview that the dread of the fog is the last remaining anxiety of seafarers. By means of special wireless waves he proposes to inform the commanders of vessels the exact direction from which each message comes.

"It is merely a matter of triangulation," he said. "Your skipper picks up a lighthouse to his right and another to his left. He triangulates and estimates. He knows just exactly where he is. He picks up a ship at sea in connection with the lighthouses, he figures that into his triangulations, and he knows just how near he is to it."

Mr. Marconi said he preferred not to tell exactly what kind of an instrument it was until he had his papers from the patent office. He said that he would not like to have to fight about patents. He has had quite enough trouble of that sort.