

KIDS
DISCOVER

1
LEAGUE
UNDER
THE
SEA
!

Titanic

THE
ICEBERG
COMETH

SURVIVORS
SPEAK!

WHEN THE BOW
BREAKS

A
BAD
CASE
OF
RIVETS
!

910.4
KID

SOS
BIG-TIME

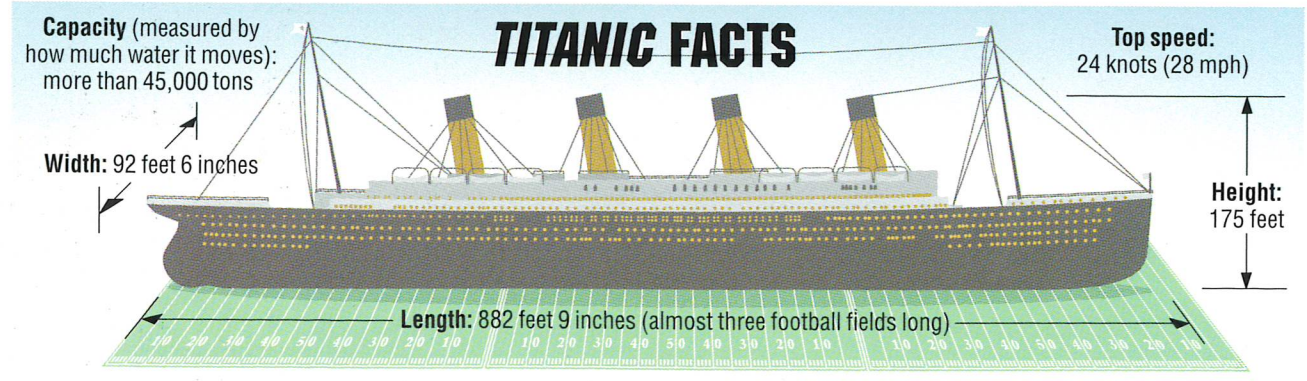
“Iceberg! Right Ahead!”

By the time these words rang out on the RMS *Titanic*, it was too late. The warning came at 11:40 p.m. on the clear, cold night of April 14, 1912, in the icy seas of

the North Atlantic. Within 40 seconds, the ship’s starboard (right) side was raked below the waterline by the submerged spur of an iceberg. Less than three hours later, the *Titanic* sank beneath the water. At least 1,523 of its roughly 2,228



CHECK IT OUT!
Where does the name RMS *Titanic* come from?
(answer on back cover)



passengers and crew were dead or dying. Had the *Titanic* missed the iceberg that Sunday, it may have simply been remembered as one of the largest, most luxurious ocean liners of its time. Yet so much went wrong that the *Titanic* has become a

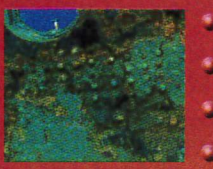
symbol for disaster. The great ship’s story is a drama with a little of everything: heroism and fear, humility and arrogance, wealth and poverty, life and death. Come aboard the grand ship for a voyage of a lifetime—from the safety of home.



◀ **ON THE NIGHT** it sank, the *Titanic* was making its maiden (first) voyage across the Atlantic Ocean.

FATAL FLAWS

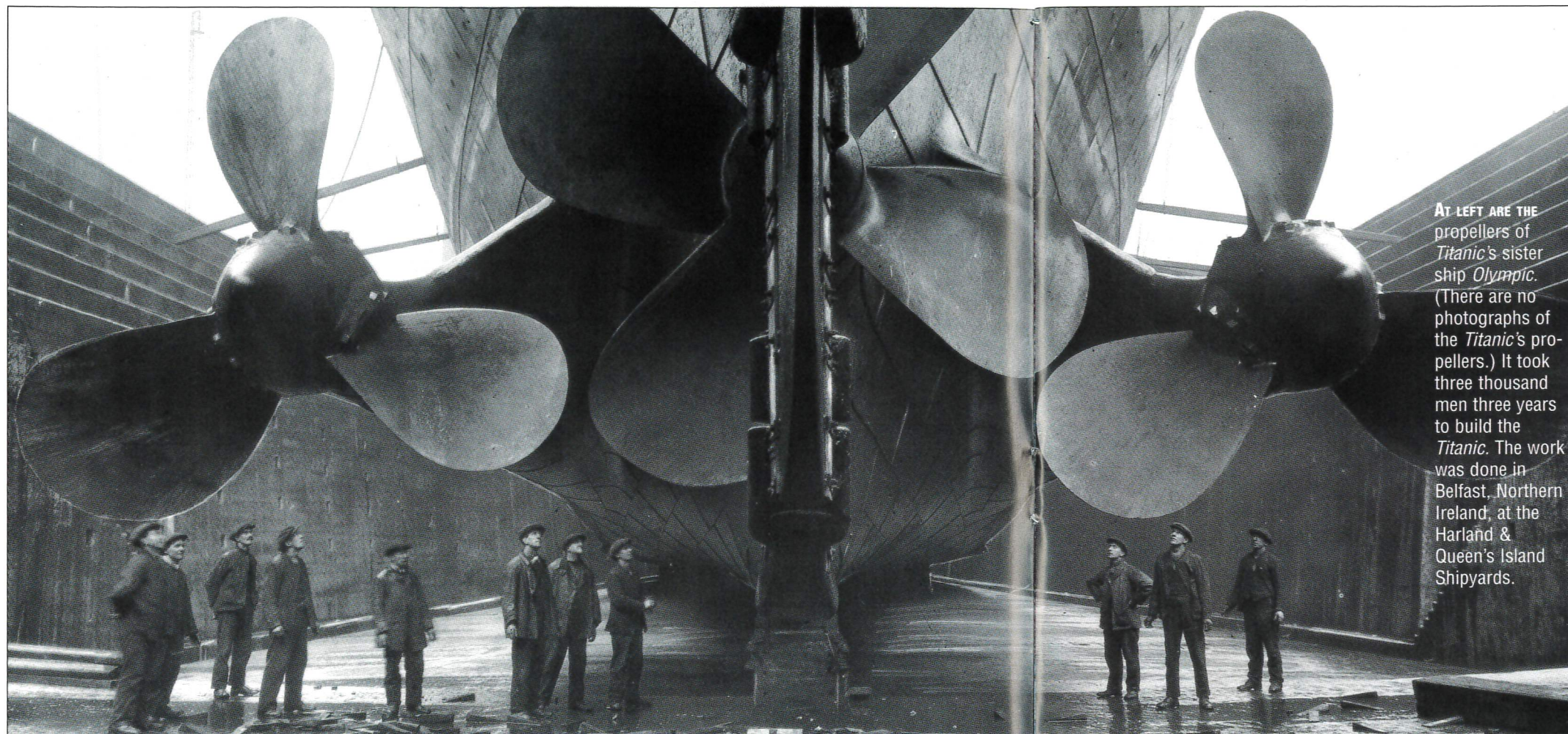
The rivets (metal bolts used to join steel plates) on the *Titanic* contained metallic impurities. As a result, the rivet heads tended to pop off when the ship scraped the iceberg. Once a rivet head popped, the seams between plates separated, and water entered the ship.



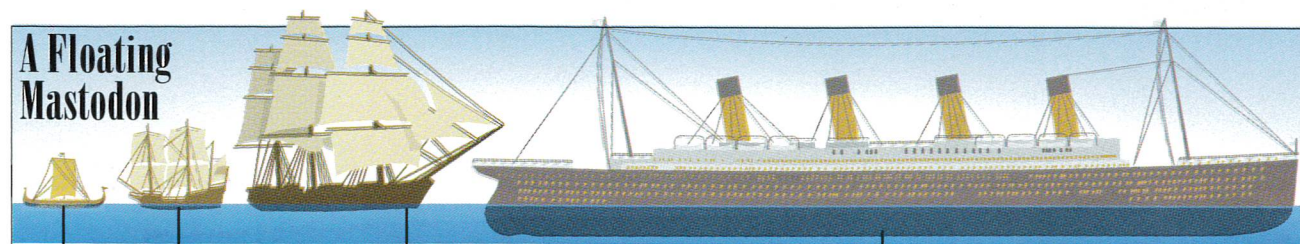
Building a Colossus

Boats have been around from the time of our earliest ancestors. Boats enabled people to cross wide rivers and fish in deep waters. As people began to explore distant lands, they found better ways to

build larger and stronger boats. Around A.D. 1000, Viking explorers from Norway, Sweden, and Denmark sailed to North America in wooden boats no bigger than today's mobile homes. But traveling the Atlantic then—and for centuries afterward—was dangerous. Icebergs, storms, poor navigational equip-



AT LEFT ARE THE propellers of *Titanic's* sister ship *Olympic*. (There are no photographs of the *Titanic's* propellers.) It took three thousand men three years to build the *Titanic*. The work was done in Belfast, Northern Ireland, at the Harland & Queen's Island Shipyards.



Viking Longship	Mayflower	USS Constitution	RMS Titanic
Raiding vessel	Merchant ship	Frigate	Ocean liner
Built around A.D. 1000	Built in 1610	Built in 1797	Built in 1911
65–90 feet long	106 feet long	204 feet long	882 feet 9 inches long
30–60 passengers	120 passengers	500 passengers	3,547 passengers

ment, and unreliable sail power cost thousands of people their lives, as did disease and unsanitary conditions.

By the late 1800s, transatlantic crossings had become more routine. Ships were now powered by steam engines and built of iron and steel. (*Ship* is the term used for a large seagoing vessel.)

Shipping companies began building giant ocean liners. In the early 1900s, the White Star Line was in a heated race with competitors to build even bigger, more impressive ships. In 1912, after three years under construction, the largest moving object in the world—the *Titanic*—was unveiled.



▲ **J. BRUCE ISMAY** was managing director of the White Star Line and a driving force in the creation of the *Titanic*. Ismay was on board the *Titanic* during its maiden voyage and escaped the sinking ship in one of the *Titanic's* collapsible lifeboats, perhaps thinking that his testimony would be valuable later. However, his reputation suffered after the tragedy. He was accused of saving himself while the captain and others died.



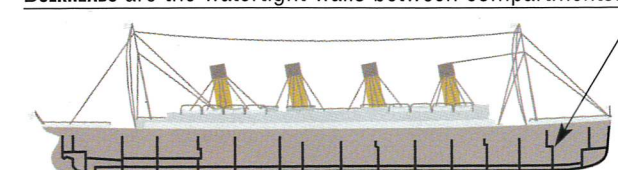
▲ **THOMAS ANDREWS** was the *Titanic's* designer. He was famous for knowing every detail of the ship. He listened carefully to crew members' complaints and made changes when possible. Andrews sailed on the *Titanic* to identify the problems that always come up in a brand-new ship. Like the captain, Andrews perished.

the ship. He listened carefully to crew members' complaints and made changes when possible. Andrews sailed on the *Titanic* to identify the problems that always come up in a brand-new ship. Like the captain, Andrews perished.

► **THE *TITANIC'S* captain, Edward J. Smith, was often called the "millionaires' captain" because wealthy families asked to book passage on his ships. The White Star Line made him captain of the *Olympic* and later of the *Titanic*. In two years, he was to command the *Gigantic* on its maiden run. He did not survive.**



BULKHEADS are the watertight walls between compartments.



▲ **THE *TITANIC*** could float if any two of her 16 "watertight" compartments flooded, or even if the first four flooded. However, if the first five sections flooded, the bow (front) would sink so low that the water in the fifth compartment would overflow into the sixth, and when that section filled, water would overflow into the seventh, and so on.

FATAL FLAWS

The British technical journal *THE SHIPBUILDER* was so impressed with *TITANIC's* bulkheads (left) and other safety features that it pronounced the ship "practically unsinkable." However, the bulkheads rose only 10 feet above the waterline. Had they been built higher, the ship might not have sunk.

"When anyone asks how I can best describe my experience in nearly 40 years at sea, I merely say: uneventful. I never saw a wreck and have never been wrecked nor was I in any predicament that threatened to end in disaster of any sort." **TITANIC CAPTAIN EDWARD J. SMITH IN 1907**

TITANIC TIME LINE

1908 The White Star Line approves plans for three of the biggest ocean liners in history. They will be called *Olympic*, *Titanic*, and *Gigantic*. Construction begins on *Olympic*.

1909 Construction begins on the *Titanic* in Belfast, Northern Ireland.

1910 *Olympic* launched (set afloat).

1911 *Titanic* launched. White Star Line continues with changes and improvements that make it the largest ship in the world (left). *Olympic* makes its maiden voyage.

The Classes of 1912

People in 1912 were very aware of their class, or position, in society. Class was determined by family background, wealth, and education, among other things. On the *Titanic*, the price of a passenger's ticket said a lot about that person's position in society.



◀ **RUNNING A GIANT** machine like the *Titanic* required more than nine hundred workers. Among them were nine officers to supervise the crew, 390 stewards and stewardesses to serve the passengers' needs, and 289 firemen, trimmers, and greasers to carry and shovel coal into the boilers and lubricate moving parts of the ship. Seated at far left is Captain Smith.

FATAL FLAWS

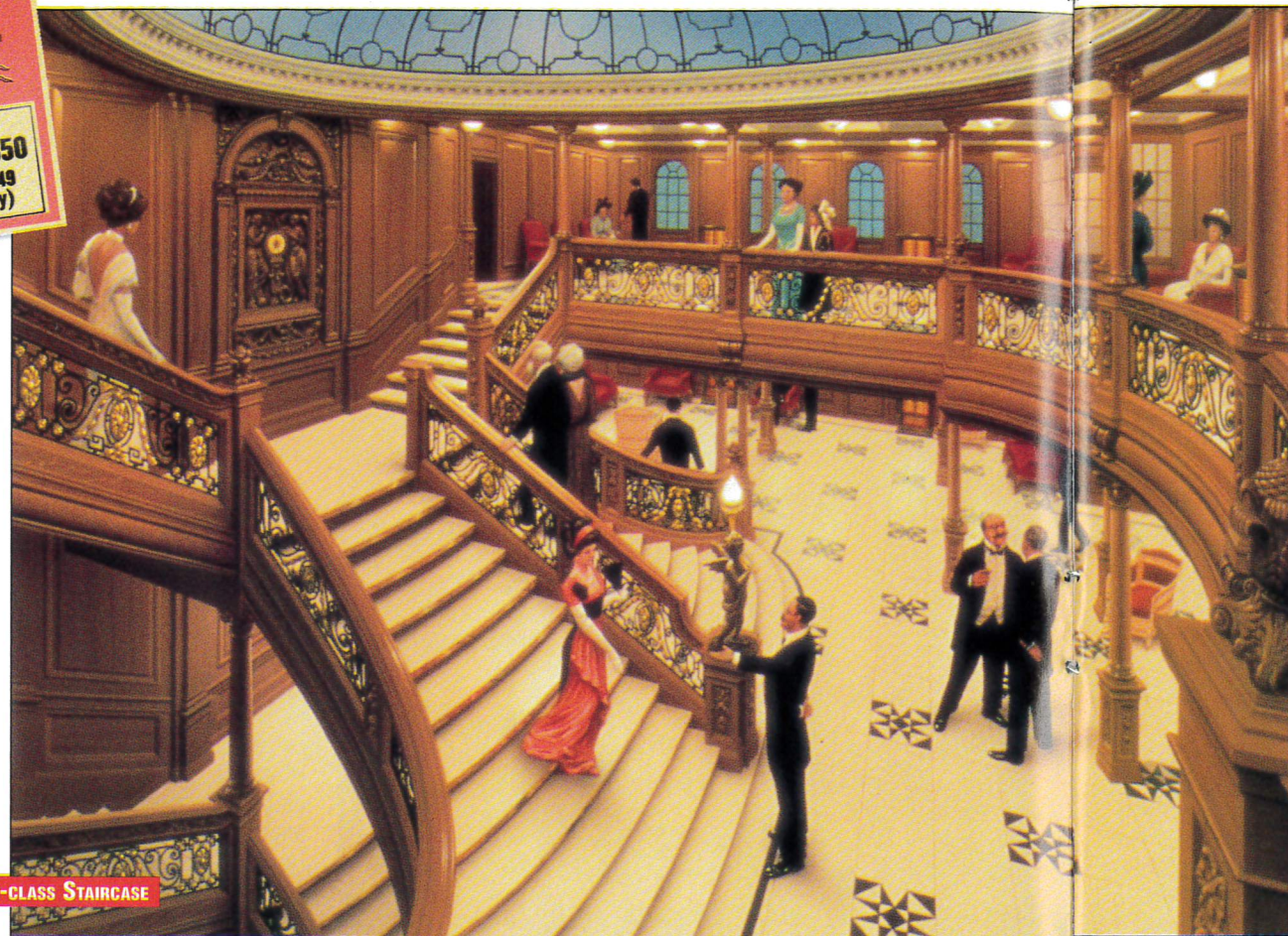


The *Titanic* could carry up to 3,547 people, yet it carried only 16 lifeboats and 4 collapsible boats with canvas sides—enough for just 1,178 people. At the time, British laws stated that the *Titanic* had to carry only 16 lifeboats. By carrying the 4 collapsible boats, the *Titanic* was actually carrying more than the law required.

WHITE STAR LINE
ROYAL & UNITED STATES MAIL STEAMERS

FIRST CLASS ★ ★ ★
TICKET PRICE: \$1,500 to \$4,350 (\$26,741 to \$77,549 in today's money)

► **THE WHITE STAR** Line spared no expense to make its first-class rooms as opulent as possible. They came complete with thick carpets and overstuffed sofas and chairs. First-class passengers had at their disposal a gymnasium, swimming pool, squash court, Turkish bath, and library.



FIRST-CLASS STAIRCASE

► **THE PRESS CALLED** the *Titanic* the "millionaires' special" because there were so many wealthy people traveling first-class. Their combined fortunes were around \$500 million (\$9 billion today). Among the rich and famous people were the following:



JOHN JACOB ASTOR, New York millionaire, and wife **MADELEINE** (He died; she survived.)



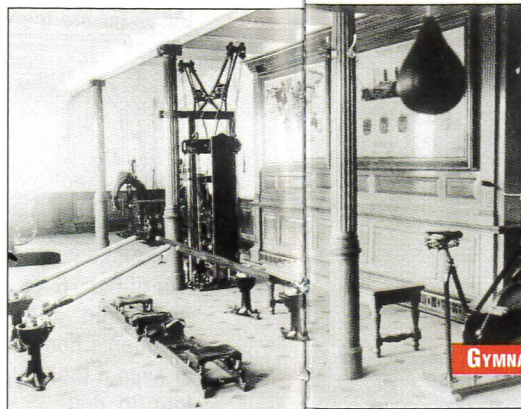
ARCHIBALD BUTT Military adviser to President William Howard Taft (He died.)



ISIDOR AND IDA STRAUS He was a founder of Macy's department store. (Both died.)



Scotland's **LUCY NOELLE MARTHA DYER-EDWARDS**, **THE COUNTESS OF ROTHES** (She survived.)



GYMNASIUM

"My pretty little cabin with its electric heater and pink curtains delighted me. Its beautiful lace quilt, and pink cushions, and photographs all round, it all looked so homey."

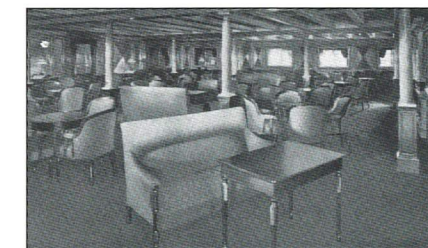
SURVIVOR LADY LUCILLE DUFF GORDON, FIRST-CLASS PASSENGER



WHITE STAR LINE
ROYAL & UNITED STATES MAIL STEAMERS

SECOND CLASS ★ ★
TICKET PRICE: \$65 (\$1,159 in today's money)

▼ **THE TITANIC'S** second-class rooms were as good as first-class rooms on other ships. Most second-class passengers were professionals—teachers, doctors, and businessmen. Their



rooms were simple but attractive, with mahogany beds and linoleum floors. Second-class passengers also had their own library and several other beautifully decorated public rooms (below).



FIRST-CLASS BEDROOM

"Everything was new. New! Our cabin was just like a big hotel room, it was so big. The dining room was beautiful—the linens, all the bright polished silver you can imagine."

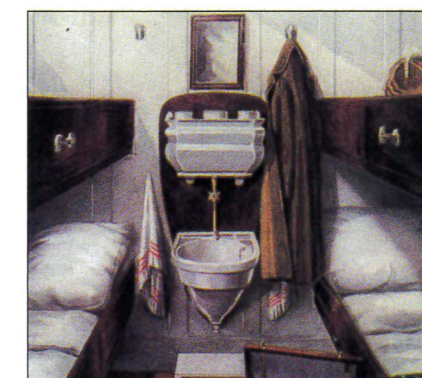
SURVIVOR RUTH BECKER, 12-YEAR-OLD SECOND-CLASS PASSENGER



WHITE STAR LINE
ROYAL & UNITED STATES MAIL STEAMERS

THIRD CLASS ★
TICKET PRICE: \$36 (\$642 in today's money)

▼ **MOST THIRD-CLASS**, or steerage, passengers were poor people leaving Europe for a new life in the U.S. Their accommodations on the lower decks were



► **STEERAGE** passengers came from many different countries. (In fact, the ship carried people of 24 different nationalities.) During the early 1900s, immigration to the U.S. exploded, and shipping companies, like the White Star Line,



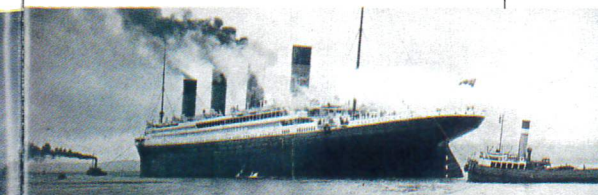
cash in on it. On the average, a ticket on the *Titanic* cost steerage passengers two months' pay.

1912

MARCH Builders put the finishing touches on the *Titanic*.

APRIL 2 The *Titanic* completes its sea trials, then sails from Belfast, Northern Ireland, to Southampton, England.

APRIL 10 The *Titanic's* maiden voyage begins in Southampton and ends in Cherbourg, France.



APRIL 11 The *Titanic* leaves Cherbourg on April 10 and arrives at Queens-town (now called Cobh), Ireland, around noon on the 11th to pick up the last of its passengers. Around 1:30 p.m., the *Titanic* departs for New York.

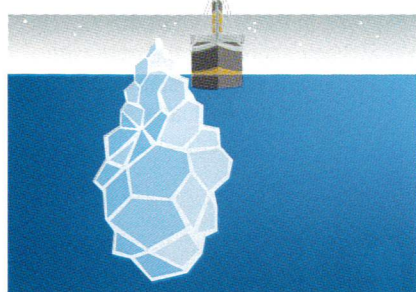
APRIL 13 The *Titanic* gets the first of seven ice warnings from other ships.

Disaster Strikes

The night that the *Titanic* sailed into history was cold and moonless. The normally storm-tossed Atlantic Ocean was a flat calm. That Sunday was cold, but it had been a pleasant one for the passengers. They had spent their time attending church services and relaxing. By 11 p.m., most of them were in bed.

▼ **WHEN PEOPLE SAY,** "That's just the tip of the iceberg," they mean that it's part of something much bigger. That's because only about 10 percent of an iceberg is above water. The 90 per-

cent below water may have sharp edges that could damage a ship's hull. Atlantic icebergs form when huge pieces of freshwater ice break off from glaciers and float into the sea.

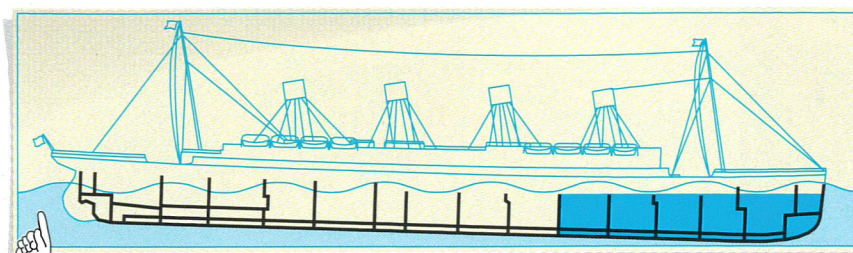


FATAL FLAWS

During its journey, the *TITANIC* received seven messages from other ships warning that icebergs were in the area. The telegraph operators delivered all messages to Captain Smith or the officers, except one, from the *MESABA*. Smith steered the ship farther south to avoid



the icebergs, but he did not slow down. Like many captains at the time, he trusted his lookouts to spot trouble in time.



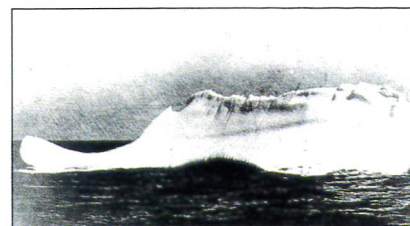
TRY THIS!

THE ICEBERG punched a series of thin gashes along the first 250 feet of the *Titanic*, damaging six of the "water-tight" compartments, which begin to flood. To get an idea of how this affected the rest of the ship, take an empty ice cube tray and slowly pour water into just one section. As it fills, notice how the water pours over the top into other sections.

► **THE *TITANIC* WAS** so big that most passengers and crew felt only a slight vibration when the ship hit the iceberg. Some also heard a noise, which one passenger described as the sound heavy cloth makes as it rips. Very few first- and second-class passengers were alarmed, even after they learned that the ship had hit an iceberg. After all, the *Titanic* was "unsinkable."

However, many steerage passengers, lower in the ship, realized the danger. The

iceberg shown below was in the North Atlantic the night the *Titanic* sank.



"I jumped out of my bed, put on a pair of trousers, and ran up on the deck to find out what was the matter. I saw some small pieces of ice on the starboard side..."

SURVIVOR
ERNEST ARCHER,
SEAMAN

"I felt the engines slow and stop. The dancing motion and the vibrations ceased suddenly after being a part of our very existence for four days, and that was the first hint that anything out of the ordinary had happened. I jumped out of bed, I went out of my cabin into the hall. There was a steward leaning against the staircase. I said, 'Why have we stopped?' 'I don't know sir,' he replied, 'but I don't suppose it's anything much.'"

SURVIVOR
LAWRENCE BEESLEY,
SECOND-CLASS PASSENGER



APRIL 14 11:40 p.m. The *Titanic*, traveling at 21½ knots, collides with an iceberg.

11:50 p.m. Captain Smith and Thomas Andrews, the ship's designer, check for damage. Andrews informs the captain that the *Titanic* will sink because more than four bulkheads are damaged.

APRIL 15 Midnight Captain Smith tells the ship's wireless operators to send a distress call.

12:05 a.m. Smith orders the lifeboats ready.

12:25 a.m. Smith orders passengers into lifeboats—women and children first.

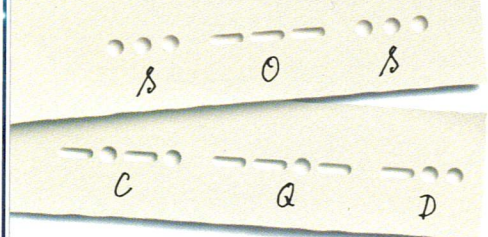
12:30 a.m. Passengers remain hesitant to board the lifeboats. Most passengers and crew members do not yet realize the seriousness of the situation.

12:45 a.m. Lifeboat No. 7 is the first boat lowered into the water. The *Titanic* fires the first of eight distress rockets into the air. The sight of rockets finally convinces passengers of the danger.



“Pull for your lives or you’ll be sucked under!”
CREWMAN FROM LIFEBOAT No. 4

SOS



As the *Titanic's* forward compartments flooded, wireless operators Jack Phillips and Harold Bride frantically signaled other ships. At first, they sent the traditional Morse code distress call, CQD (Attention all stations: Distress). Several ships responded, but the nearest one, the *Carpathia*, was 58 miles, or more than four hours, away.

The radio operators then sent the newer SOS distress call, a signal that was easy to transmit and receive. In 1906, SOS (dot, dot, dot; dash, dash, dash; dot, dot, dot) had been created to replace the longer and more complicated CQD (dash, dot, dash, dot; dash, dash, dot, dash; dash, dot, dot).

Now, it was only a matter of time.

► **AT FIRST, THERE** was great confusion but no panic on board the sinking *Titanic*. On the port (left) side of the ship, the *Titanic's* officers allowed only women and children into the lifeboats, as well as one or two crewmen to help row and steer. On the starboard (right) side, men could get into the lifeboats if no women or children were around to fill the spots. As the number of lifeboats dwindled, people became increasingly frightened.



"The escaping steam making a deafening noise, women and children were put into the boats first. When most of the boats had left the ship, she began to list forward. By this time, I had decided that the only thing to do was jump for my life. Having shaken hands with my two best friends, I climbed up on the boat deck railing and dropped about thirty feet into the sea."

SURVIVOR ALGERNON BARKWORTH, FIRST-CLASS PASSENGER

▼ **SOME OF THE LIFE-**boat crews were so inept that the women took over. On Lifeboat No. 6, Denver millionaire



Molly Brown organized the women into rowing teams and helped keep spirits up. Known as a colorful, outspoken woman even before boarding the ship, the press later dubbed her "the unsinkable Molly Brown." A romanticized musical based on her life later became a hit play and movie.



▲ **AMID THE DESPER-**ate search for lifeboat space, the ship's eight-man orchestra played lively tunes to help keep people calm. Meanwhile,

below decks, engineers worked to keep the lights on. The boiler room crews had been dismissed to go topside. The generators were operating on left-over steam in the boilers, and as this subsided, the lights took on a reddish glow in the ship's final minutes. No musician or engineer survived.

FATAL FLAWS



The *TITANIC* had 20 lifeboats (including 4 collapsible ones) and davits (movable cranes for lowering the lifeboats into the water). The davits could hold a boat full of people, but the *TITANIC's* officers hadn't been told of this. As a result of one officer's fears of overloading, and because of people's unwillingness to leave loved ones, lifeboats that could have saved 1,178 people saved only 705.

CHECK IT OUT!

Did anyone predict the *Titanic's* sinking? (answer on back cover)

How the *Titanic* Sank

STERN

BOW

1 Water spills over from one "watertight" compartment into another. The *Titanic's* bow (front) begins to dip into the sea.

2 As the bow plunges, the stern (rear) rises out of the water, and the forward funnel topples into the sea.

3 The weight of the stern causes the ship to break into two main sections. The bow is still attached to the stern by the keel as it goes under, pulling the

keel upright, like pulling a wagon behind it. But the keel breaks and the bow plunges to the ocean bottom.

4 The stern rights itself briefly but soon loses buoyancy as water enters its compartments. It lifts again into the air and quickly sinks.

▼ **RECENT DISCOVER-**ies solved a lingering mystery: Did the ship break in two as it sank? Eyewitness reports were conflicting. In truth,

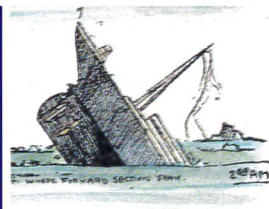
the ship split into two main sections, and debris is scattered over a mile of ocean floor. This photo-mosaic, taken during RMS

Titanic, Inc.'s August 1998 recovery expedition, is made up of more than 3,000 individual photos from over 20 identifiable locations.



2:05 a.m. Collapsible D is the last lifeboat launched. More than 1,500 people remain on the ship.

2:17 a.m. The *Titanic's* last wireless message is sent. Captain Smith tells several people, "It's every man for himself."



2:18 a.m. The *Titanic* breaks in two pieces. The bow (front) section sinks. The stern (rear) section seems to stay afloat.

2:20 a.m. The last of the *Titanic* disappears beneath the water.

Endless Night

The only remains afloat of the *Titanic* after 2:20 a.m. were 20 lifeboats carrying just over seven hundred survivors. People in the boats were seasick and freezing. Nobody knew if or when a rescue ship would arrive.

For most of those swimming in the frigid water, there was little hope. One survivor said that their cries for help at first sounded like the crowd's roar at a baseball stadium when the batter hits a home run. But soon, the shouting faded away as the cold silenced the voices.

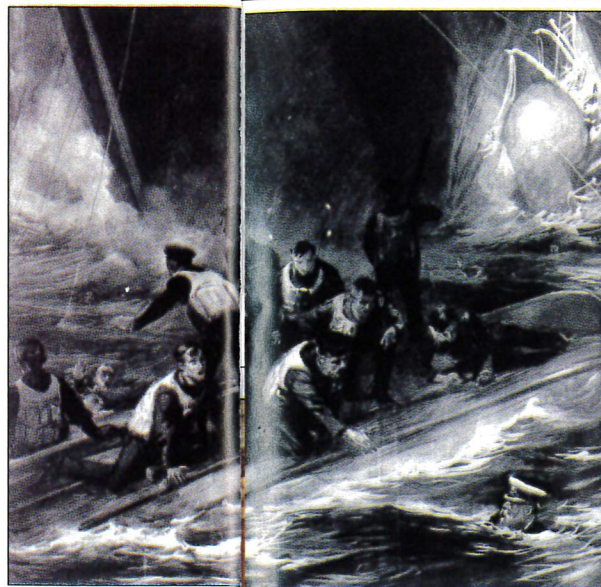


"Striking the water was like a thousand knives being driven into one's body." **SURVIVOR CHARLES LIGHTOLLER, THE TITANIC'S SECOND OFFICER**

➤ **THE BIGGEST** threat to people in the water was hypothermia, a dangerous lowering of the body's temperature. The

salty seawater was around 28°F, four degrees below freezing, and no person could survive in it for more than

a few minutes. Hypothermia causes the activity of the organs to slow down, and eventually they stop working.



CHECK IT OUT!

Can hypothermia ever save lives? (answer on back cover)

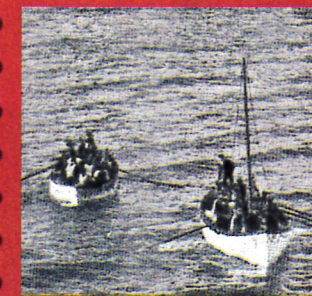


"... and finally the ghastly noise of the people thrashing about and screaming and drowning, that finally ceased. I remember saying to my mother once, 'How dreadful that noise was,' and I always remember her reply, and she said, 'Yes, but think back about the silence that followed it...'"

SURVIVOR EVA HART, A SEVEN-YEAR-OLD SECOND-CLASS PASSENGER

FATAL FLAWS

Despite the terrible cries for help, just one lifeboat—No. 14 (below)—went back to pick up people in the water. Those in the other boats were afraid of being pulled down by the suction of the *Titanic* sinking (which, as it turned out, was not very strong). They were also afraid



of being overturned by desperate people trying to scramble on board. The lifeboat that went back found only four people alive in the water—and one of them soon died.

▼ **WHEN THE *Carpathia*** got the message that the *Titanic* was in grave danger, it raced to help. In doing so, it had to ignore caution and run an obstacle course of icebergs in the dark. It took the

Carpathia four hours to get everyone from the *Titanic*'s lifeboats on board. The ship's captain, Arthur Rostron (right), was awarded a specially commissioned Medal of Honor by the U.S. Congress.



◀ **SHIPS' RADIOS** were all on the same frequency, causing messages from the *Titanic* and other ships to become garbled or merged. This left people on shore desperate for news. Some newspapers mistakenly reported that all the passengers had been saved. Others, lacking facts, made up stories. As the *Carpathia* entered New York harbor, crowds gathered, and people eagerly sought out loved ones.

◀ **FROM NEW YORK**, some survivors went to Washington, D.C., to testify about what had happened. Others went to Plymouth, England, aboard

the *Lapland*. At Plymouth, they were taken to the train station (left) before going to testify at the British inquiry into the disaster.



3:30 a.m. Survivors in the lifeboats see signal rockets from the rescue ship, *Carpathia*.



4:10 a.m. Lifeboat No. 2 is the first picked up by the *Carpathia*.



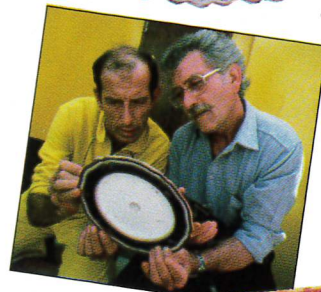
8:30 a.m. Lifeboat No. 12 is the last one rescued. Three days later, the *Carpathia* arrives in New York with 705 *Titanic* survivors.

Titanic's Legacy

In the early 1900s, science and technology seemed to be making the world better all the time. New drugs eliminated diseases, and new inventions like the automobile made life easier. However, the sinking of the “unsinkable” *Titanic* rattled everyone’s confidence in progress. The march of technology did not stop after April 15, 1912, but it did pause to learn a few lessons. The *Titanic* has remained a source of curiosity ever since.



CHINA SERVING PLATE



FIRST-CLASS DINNER PLATE



BANKNOTE



FIRST-CLASS DEMITASSE CUP

SILVERWARE



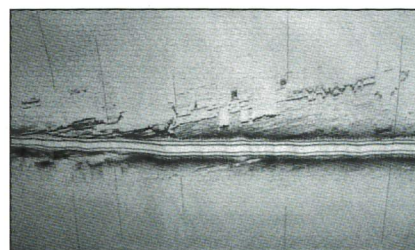
▲ **FLORIDA-BASED** RMS *Titanic*, Inc. owns salvage rights to the *Titanic*. It has retrieved more than six thousand objects from the wreck. The company vowed not to sell objects with historical importance. However,

with the approval of the British and French governments, it has sold lumps of coal from the ship to raise money. Some people protest the salvaging,

saying that the *Titanic*'s wreck is a gravesite. Others say the recovered objects themselves serve as a memorial to the *Titanic*'s passengers and crew and provide valuable insights into life aboard the ship in 1912.

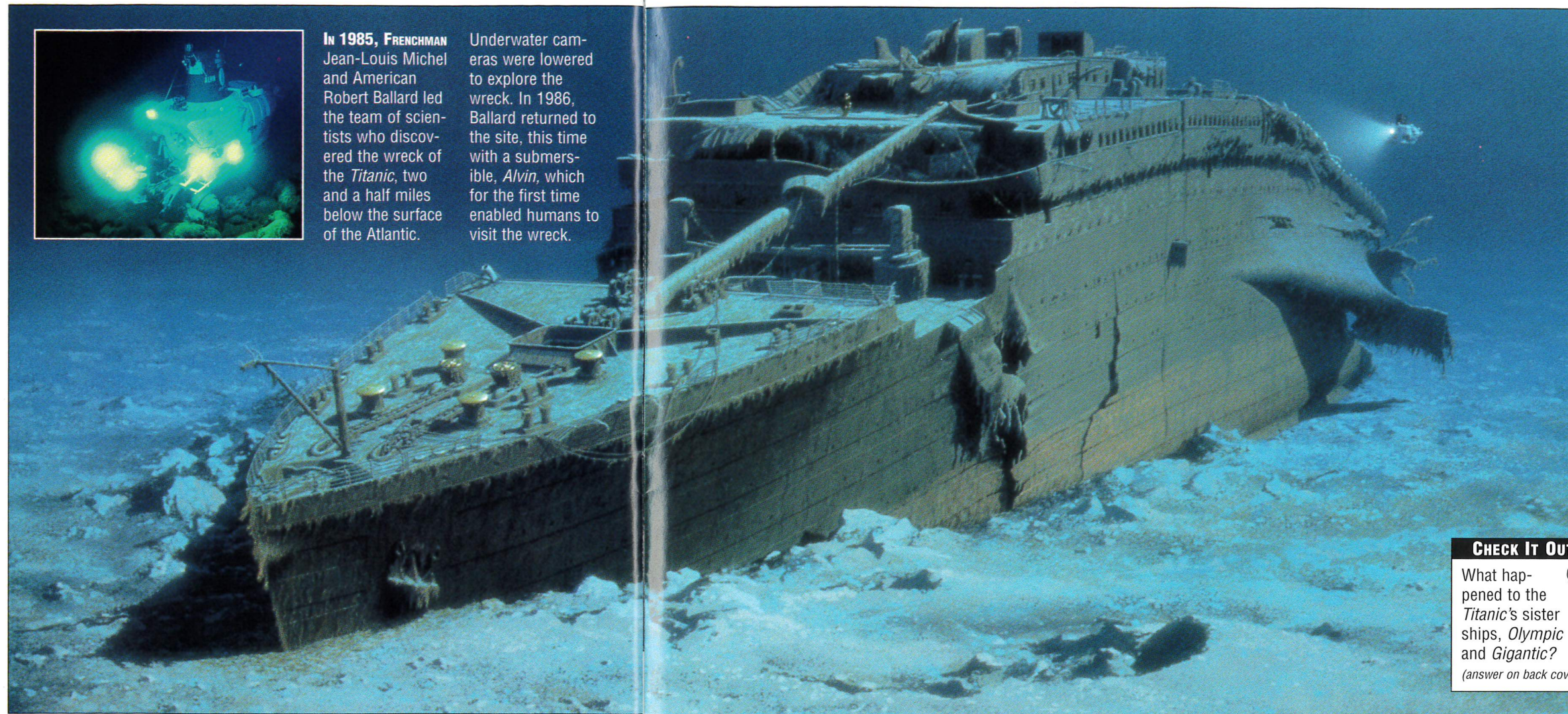
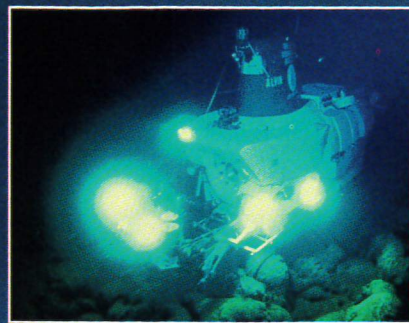
▼ **AT ONE TIME**, scientists studying the wreck believed that the iceberg did so much damage to the *Titanic* because the ship's steel had become brittle in cold water. However, newer research suggests that the steel was not like-

ly to crack in cold temperatures. More likely, the steel bent or gave way due to the incredible force of the flooding water.



In 1985, Frenchman Jean-Louis Michel and American Robert Ballard led the team of scientists who discovered the wreck of the *Titanic*, two and a half miles below the surface of the Atlantic.

Underwater cameras were lowered to explore the wreck. In 1986, Ballard returned to the site, this time with a submersible, *Alvin*, which for the first time enabled humans to visit the wreck.



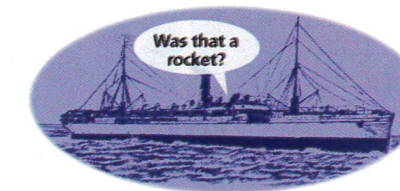
CHECK IT OUT!

What happened to the *Titanic*'s sister ships, *Olympic* and *Gigantic*? (answer on back cover)

TITANIC SCAPEGOATS



◀ **ALMOST AS SOON** as the *Titanic*'s survivors reached New York, the press began looking for someone to blame. Survivor J. Bruce Ismay, managing director of the White Star Line, was their top tar-



get. The American press criticized him for boarding a lifeboat when so many others died.

▲ **WHILE THE *TITANIC*** was sinking, some on board saw the lights of a ship in the distance. The

Californian was accused of being the mystery ship that left the *Titanic* to its fate. Later investigations found that this probably was not true: a third ship may have moved between them. Even so,

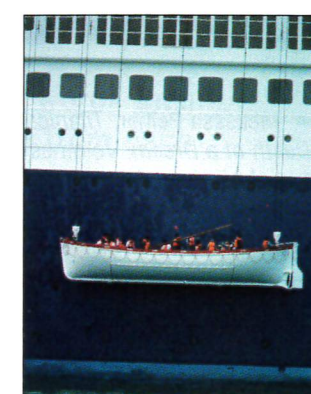
the *Californian* may have seen the *Titanic*'s distress rockets. Also, the *Californian*'s radio operator had shut down its wireless for the night, as usual, so he never heard the *Titanic*'s calls for help.

▼ **THE *TITANIC* HAS** inspired books, poems, plays, films, and songs. The first movie came out just one month after the ship sank and starred survivor

Dorothy Gibson. Most people today know about the disaster through the 1997 hit movie *Titanic*, starring Leonardo DiCaprio and Kate Winslet.

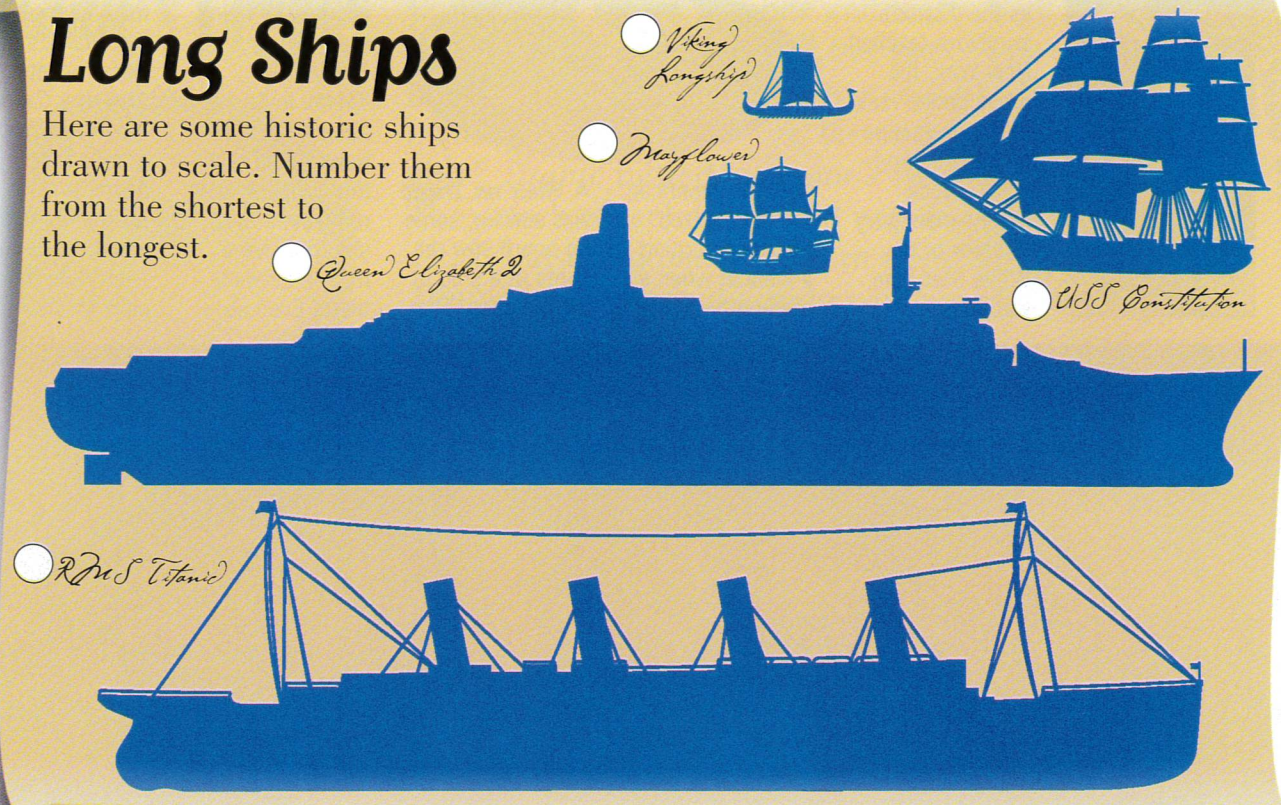
► **TWO INVESTIGATIONS** into the sinking—one British, one American—led to big changes in how ships operated. Almost immediately, all ships had to carry enough lifeboats for all passengers, and lifeboat drills became mandato-

ry. Every large ship also had to keep its wireless working at all times. Shipping lanes were shifted farther south to avoid icebergs, and an iceberg patrol was set up to chart and follow icebergs and issue warnings.



Long Ships

Here are some historic ships drawn to scale. Number them from the shortest to the longest.



MORE ON TITANIC

BOOKS FOR CHILDREN

- Simon Adams, *Eyewitness Books: Titanic*, Dorling Kindersley Publishing, 1999.
- Walter Lord, *A Night to Remember*, Bantam Books, 1955.
- _____, *The Night Lives On*, William Morrow and Co., 1986.

BOOKS FOR ADULTS

- Steven Biel, *Down with the Old Canoe: A Cultural History of the Titanic Disaster*, W. W. Norton & Co., 1996.
- John P. Eaton and Charles A. Haas, *Titanic: Triumph and Tragedy*, Haynes Publishing Group/W. W. Norton & Co., 1994.

VIDEO

- Melissa Peltier, *Titanic: Death of a Dream*, Volumes 1-4, A&E Home Video, 1994.
- *Deep Inside the Titanic*, Discovery Channel, 1998.

WEBSITE

• <http://atschool.eduweb.co.uk/phd/index.html> Encyclopedia Titanica



Match each name with a description of the person.

- | | |
|--------------------------|---|
| ___ 1. Molly Brown | a. Captain of <i>Titanic</i> |
| ___ 2. J. Bruce Ismay | b. Codiscoverer of sunken <i>Titanic</i> |
| ___ 3. Edward J. Smith | c. "Unsinkable" passenger on <i>Titanic</i> |
| ___ 4. Leonardo DiCaprio | d. Designer of <i>Titanic</i> |
| ___ 5. Thomas Andrews | e. Managing director of White Star Line |
| ___ 6. Robert Ballard | f. Star of a <i>Titanic</i> movie |

ICEBERG MELT

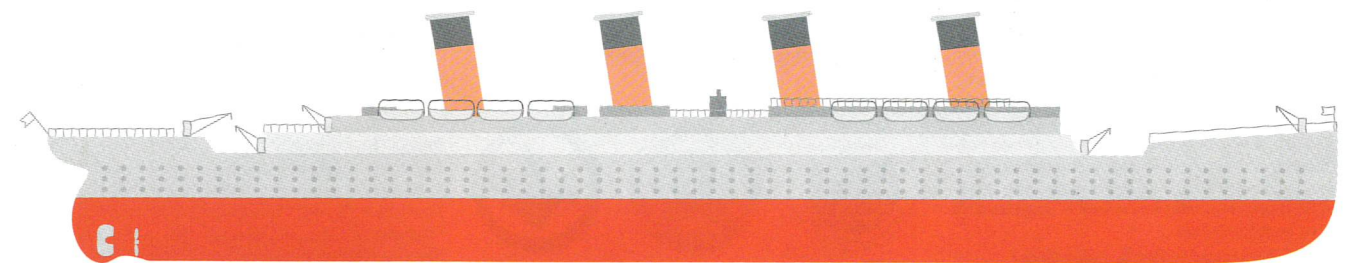
What would happen if all of the world's icebergs melted? Would the sea level rise and flood the coasts? This experiment will show you the answer.

Put as many ice cubes as you can in a glass. Then fill the glass to the very top with warm water. Place the glass in a bowl. Wait until the ice cubes have all melted. Did the water spill over the top of the glass?



SHIP SEARCH

Find these 10 words, which were all parts of or locations on the *Titanic*: port, starboard, bow, stern, davit, bridge, lifeboat, bulkhead, wireless, steerage.



← HOW BIG IS BIG? →

The name *Titanic* comes from Greek mythology. Here are some words meaning "big" that all come from ancient Greek names. Draw a line from each word to its origin. Use a dictionary if you need to.

- | | |
|-----------------------|--|
| ● COLOSSAL (Colossus) | ● savage brothers of the Titans |
| ● GIGANTIC (Gigantes) | ● one-eyed monster |
| ● TITANIC (Titans) | ● a huge bronze statue at the entrance to the harbor on the island of Rhodes |
| ● CYCLOPEAN (Cyclops) | ● the offspring of Uranus (the Sky) and Gaea (the Earth) |



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ON THE COVER: *Titanic* shipwreck

PICTURE CREDITS: Archive Photos: p.7 lower room; Popperfoto, p.6 top right (Marco Jr./*New York Times*, p.15 top left); Brothers: p.5 bottom left (SS *Olyn* right (gymnasium), p.8 center right top left (Charles Lightoller), p.14 p.17 top left (J. Bruce Ismay), p.6 (Captain Edward J. Smith), p.7 (Duff Gordon), p.12 center (Molly Brown), p.16 top left (china serving plate), p.16 center left (banknote); Purcell Team, p.17 bottom right (lifeboat); Ralph White, p.4 bottom right (construction of the *Titanic*), p.16 upper left (first-class dinner plate), p.16 center left (demitasse cup), p.16 lower left (silverware), p.16 inset center (visiting the wreck), p.16 bottom right (steel). Culver: p.5 top left (J. Bruce Ismay), p.6 bottom left (John Jacob Astor), p.6 bottom (Isidor Straus), p.12 top right (lifeboat), p.15 top right (two lifeboats). Don Lynch Collection: p.7 bottom center (Ruth Becker). Gamma Liaison: p.17 bottom left (scene from hit movie *Titanic*). Granger Collection: p.5 lower right (*Titanic's* bulkheads), p.6 bottom (Archibald Butt), p.6 bottom (Countess of Rothes), p.7 bottom left (*Titanic's* maiden voyage), p.12 lower right (*Titanic's* bow sinking), p.15 bottom left (survivors in lifeboat). Hulton Getty: p.7 top right (lifeboats), p.12 top right (Algermon Barkworth), p.14 center (news of disaster), pp.14-15 top center (people in freezing water), p.15 center left (survivors), p.15 bottom right (survivors in New York). Illustrated London News: p.8 bottom right (Lawrence Beesley), p.8 bottom left (radio operator). Ken Marshall Collection: p.5 bottom center (*Titanic* launching), p.5 top right (Thomas Andrews), p.7 center right (third-class room); National Maritime Museum, p.7 center (second-class room). Madison Press Books: pp.2-3 (*Titanic* and lifeboats), p.6 center (first-class staircase), pp.10-11 (*Titanic* sinking), p.12 lower center (lowering lifeboat), pp.14-15 center (*Carpathia*), pp.16-17 center (*Titanic* wreck). RMS Titanic: p.3 lower right (rivets), p.13 bottom right (photomosaic of *Titanic*). Ulster Folk and Transport Museum: pp.4-5 center (propellers).



910.4 KID Stella Sands, editor Titanic

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ANSWERS:

PAGE 2: Where does the name RMS *Titanic* come from? *Titanic* was a British ship, and the initials RMS stand for Royal Mail Steamship. *Titanic* means "big," after the Titans, a group of Greek gods famous for their size and strength. *Titanic* was also called SS (*Steam Ship*) *Titanic*.

PAGE 12: Did anyone predict the *Titanic's* sinking? After the *Titanic* sank, many people said they had predicted the event. There is no hard evidence for these claims, but in 1898, Morgan Robertson published a novel called *Futility*, about an ocean liner called the *Titan*. In his story, the *Titan* is the biggest ship afloat when it strikes an iceberg and sinks in the North Atlantic. Most of the *Titan's* three thousand passengers die because there aren't enough lifeboats.

PAGE 15: Can hypothermia ever save lives? Yes. Doctors often bring on hypothermia deliberately when performing brain or open-heart surgery. Their goal is to stop the circulation of blood. Without oxygen from blood, the brain would be permanently damaged within three to five minutes at normal temperatures. But during deep hypothermia, blood flow can be stopped naturally for an hour or longer and the patient can be safely revived.

PAGE 17: What happened to *Titanic's* sister ships? *Olympic* had a distinguished career that ended in 1935, when it was sold and scrapped. Because *Gigantic* sounded too much like *Titanic*, the ship's name was changed to *Britannic*. It became a hospital ship at the outbreak of World War I. In 1916, it sank near Greece, apparently after hitting a mine. Twenty-one people died.

PAGE 18:
LONG SHIPS: 1. Viking Longship; 2. *Mayflower*; 3. *USS Constitution*; 4. *RMS Titanic*; 5. *Queen Elizabeth 2*.
TITANIC PERSONALITIES: 1. c; 2. e; 3. a; 4. f; 5. d; 6. b.

PAGE 19:
ICEBERG MELT: The water does not spill over the top of the glass. The amount of water from the melted ice cubes is equal to the mass of the ice cubes. If all the icebergs in the ocean melted, the sea level would still be the same.

How Big Is Big? *Colossal* (*Colossus*): a huge bronze statue at the entrance to the harbor on the island of Rhodes; *gigantic* (*Gigantes*): savage brothers of the Titans; *titanic* (*Titans*): the offspring of Uranus (the Sky) and Gaia (the Earth); *cyclopean* (*Cyclops*): one-eyed monster.

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