

THE SEVEN WONDERS OF THE MODERN WORLD

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ANCIENT civilization produced seven wonders that have been handed down to us as marvels of what man can do. These seven wonders of ancient times were: (1) the pyramids of Egypt, (2) the pharos (lighthouse) of Egypt, (3) the hanging gardens of Babylon, (4) the temple of the Roman goddess Diana at Ephesus, (5) the statue of the Greek god Zeus by Phidias, a sculptor of ancient times, (6) the mausoleum of Artemisia, an ancient queen, and (7) the colossus (enormous statue) of Rhodes.

In the middle ages the skill of man created seven more wonders which were regarded with awe. The seven wonders of the middle ages were: (1) the Coliseum of Rome, (2) the catacombs of Alexandria, (3) the Great Wall of China, (4) Stonehenge, (5) the leaning tower of Pisa, (6) the porcelain tower of Nanking, and (7) the Mosque of St. Sophia at Constantinople.

Looking at the world today we see that science has created seven modern wonders. A brief description of each is given herewith:

1. *The Telephone*

We are living in an age of speed. The telephone has contributed more to speed than any other thing which science has produced. By lifting his telephone receiver a man in Manila may talk with someone in New York, and fifteen minutes later may be talking to another person in Australia. Wonderful! Yes. But most wonderful of all is the fact that this instrument has been perfected within the past 60 years. In 1875 the first words were sent by telephone, and

today in 1939 there are 40 or 50 million telephones in the world.

In 1876 Alexander Graham Bell constructed a telephone line 100 feet long in his house and talked to a man in another room. Forty years later he talked from New York to the same man in San Francisco over a telephone line 3,400 miles long.

It is possible to talk to many parts of the Philippines by telephone, and to talk from the Philippines to the United States, Europe, or any other part of the civilized world.

2. *The Radio*

O wonder of wonders! Although the invention of wireless telegraphy is generally given to Marconi, the principles were discovered by others. What Marconi did was to invent a method of using the principles.

The radio industry now represents an industry valued at billions of dollars. A radio audience frequently numbers millions of people. And television—sending pictures by radio—is becoming more and more successful.

There are, perhaps, 1500 radio broadcasting stations in the world. More than half of these are found in the United States. The pioneer station of the world is KDKA at Pittsburgh, Pennsylvania.

3. *The Airplane*

In Greek mythology there is a legend of how Icarus was fitted with wax wings by his father. He flew too near to the sun, so his wax wings were melted and he fell to the earth and was killed. Thus we see that long ago men were thinking

about flying. About the time of Columbus the famous Italian painter, sculptor, and engineer, Leonardo da Vinci, tried experiments of flying with wings, but his experiments were not successful.

In 1900 the two American brothers, Wilbur and Orville Wright, began experimenting with machines for flying. In 1908 the Wright brothers took their machines to Europe and gave exhibition flights. Then they began to teach the world to fly.

In the last 10 or 20 years great improvements have been made in airplanes. Journeys which used to require weeks of travel are now accomplished in a few hours.

4. Radium

What is there so wonderful about radium? To reduce the explanation to the simplest possible language, radium is a metal that contains the highest development of radio-activity so far known. Pierre Curie and his wife, Madame Curie, discovered radium in 1898. Radium is so expensive that for a long time it cost \$4,500,000 for just one ounce. Radium is perhaps the most precious metal of commerce.

The principal use of radium is for the treatment of disease, but it is also used in the manufacture of luminous paints used on watch and clock dials.

5. Antiseptics and Antitoxins

It is not so many years ago, as history records time, since there were great plagues which killed millions of people. Modern science has now made it possible that all the terrible plagues can be controlled before they have a chance to spread. The twin wonders, antiseptics and antitoxins, have wrought this miracle.

6. X-Rays

X is a symbol commonly used to indicate an unknown quantity. When Roentgen, a German scientist, discovered a new ray in 1895 he did not know what it was, so he called it the X-ray. This ray of light is not visible to a person's eyes, but it enables one to make a photograph of the skeleton of a living person. By means of the X-ray a doctor can watch the beating of the human heart while a person is alive. Surely such a ray of light can be classed as a modern wonder.

7. Spectrum Analysis

Science has discovered what the sun is made of—and the stars, too—and how fast they turn. No one, of course, can get a piece of the sun or a star and test it to find out what it is made of. How then can it be found out? By spectrum analysis which is one of the seven wonders of the modern world.

By means of analyzing the light scientists have determined what elements compose the sun and the stars. This analysis of light is called spectrum analysis.

A List of the Seven Modern Wonders

The seven wonders of the modern world, then, are these: (1) the telephone, (2) the radio, (3) the airplane, (4) radium, (5) antiseptics and antitoxins, (6) X-rays, and (7) spectrum analysis.

All of these modern seven wonders have been developed within the last hundred years. Will the next century see additional wonders?

The great scientists of the world are at present working on new and marvelous developments. There are still many achievements for science to accomplish.