

## Unit 12

### Going Up?

Humans have been using machines to lift heavy objects for more than 2,000 years. These first lifting machines used ropes and pulleys. They were powered by animals and humans. These were the world's first elevators.

Power from waterwheels came next. Then steam power was used. In 1880 the first electric elevator was made by Werner von Siemens. He was a German inventor.

Early elevators were used to lift things. The things were too big or heavy to carry. If the cable broke, the elevator would fall. Then Elisha Otis invented the safety elevator. It had a special brake. The brake would stop the elevator if it began to fall. His change made people feel safe when riding elevators. Now people everywhere wanted to use elevators.

In the 1880s the first skyscrapers were built. Many new inventions from the 19th century made these buildings possible. Steel was a new material. It was used to create a very strong framework. Heating and plumbing systems kept people comfortable. The telephone allowed them to talk without leaving their home or office. The lightbulb allowed them to see in the dark. But who would want to walk up and down 20 flights of stairs every day? The Otis Elevator made it practical for people to work and live in skyscrapers.

Many big cities around the world have skyscrapers, but it was Otis who made it possible for people to live and work in such tall buildings. The next time you ride an elevator, look for his name. The Otis Elevator Company still makes elevators today.

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1. Who invented the electric elevator?

- (A) Elisha Otis                      (B) Werner von Siemens                      (C) ancient Egyptians
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2. People have been using lifting machines

- (A) for thousands of years.                      (B) since 1880.                      (C) since 1950.
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3. The first lifting machines used

- (A) ropes and pulleys.                      (B) safety brakes.                      (C) steam power.
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4. **Elevator** is another word for

- (A) freight.                      (B) cable.                      (C) lifting machine.
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5. What made people feel safe enough to ride an elevator?

- (A) a new kind of brake                      (B) electricity                      (C) skyscrapers
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6. Which of these was *not* an invention of the 19th century?

- (A) steel                      (B) pulleys                      (C) telephones
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7. When you ride an elevator today, whose name can you sometimes find?

- (A) Siemens                      (B) Otis                      (C) Edison
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8. Without elevators, it would be very hard to live or work in

- (A) offices.                      (B) homes.                      (C) skyscrapers.
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9. Who invented the “safety brake” for electric elevators?

- (A) Siemens                      (B) Otis                      (C) Edison
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10. The biggest danger before the safety brake was that elevators would

- (A) stop.                      (B) fall.                      (C) spin.