

USBORNE YOUNG READING

The Story of

Toilets, Telephones & other useful inventions



Katie Daynes
Illustrated by
Adam Larkum

The Story of
**Toilets,
Telephones**
& other useful inventions

Katie Daynes

Illustrated by
Adam Larkum

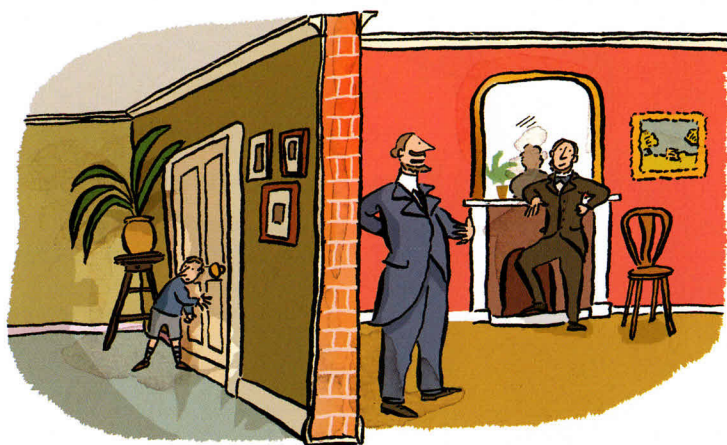


Reading Consultant: Alison Kelly
Roehampton University



Chapter 2

Telephones



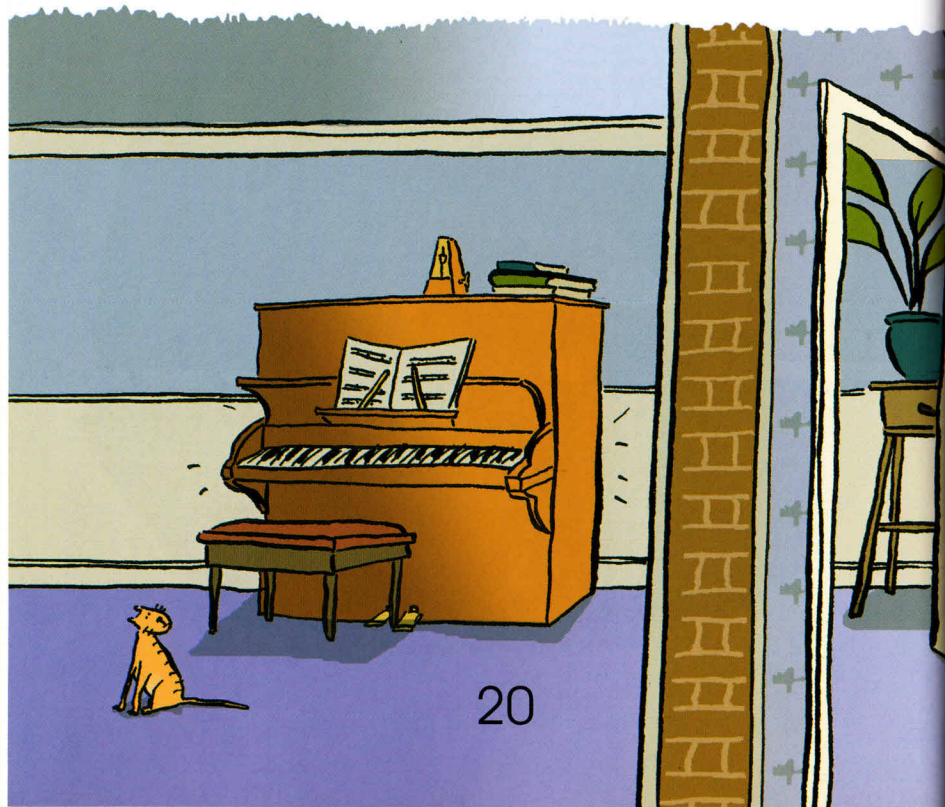
Alexander Graham Bell was a boy with a mission. While his father taught deaf people how to talk, Alexander wanted to find out how words travel.

His mother was deaf, but young Alexander found a way to make her hear. If he talked with his lips pressed against her forehead, she could feel his words and understand him.



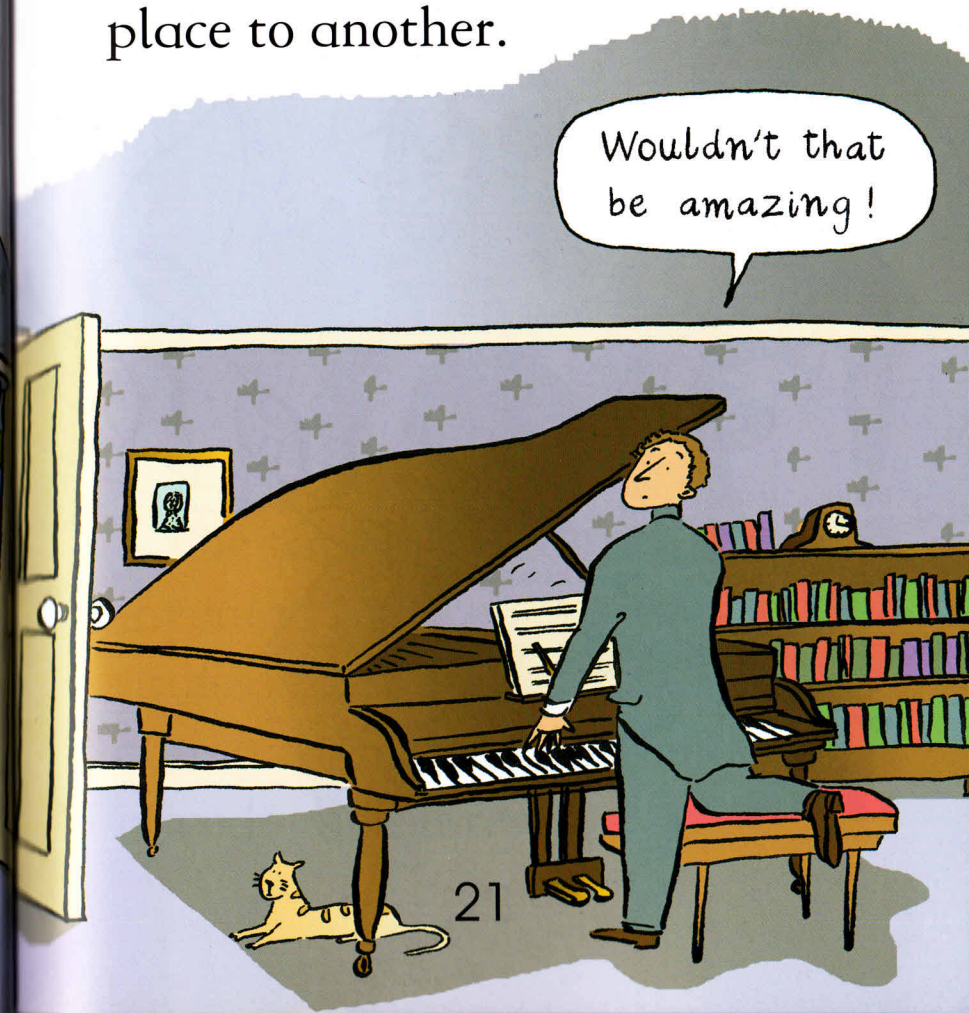
When Bell grew up, he got a job teaching deaf people to speak. In his spare time, he loved to experiment with sound.

One day, he played a chord on a piano and heard the exact notes echo on a piano next door.



"The notes can travel through air," he realized. His mind buzzed with ideas. If all sounds could travel, perhaps he could send speech from one place to another.

Wouldn't that be amazing!



electric wire...

A cartoon illustration showing two men from the chest up, looking upwards. The man on the left has brown hair and is wearing a green shirt. The man on the right is balding with a mustache, wearing a dark suit, white shirt, and red tie. Above them, a long sequence of Morse code characters (dots and dashes) is arranged in a large, upward-curving arc, resembling a wire or a path.



A cartoon illustration of a man sitting at a desk with a typewriter, looking up at a woman standing next to him. A speech bubble from the woman says, "He says he'll be late for dinner." A large, tangled black line is on the left side of the image.

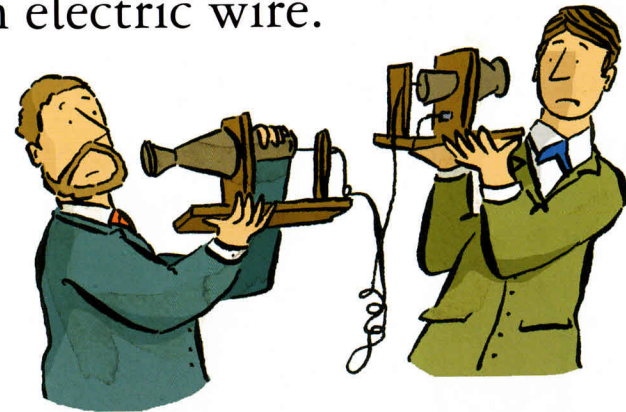
23

Bell thought long and hard about telegraph wires and speech. One day, he jumped up in excitement.



"I'll turn speech into an electric current," he thought. "Then it can travel down the telegraph wires."

In 1876, with the help of Thomas Watson, an electrical engineer, he invented a mouthpiece and an earpiece. They looked exactly the same and were joined together by an electric wire.



"When I speak into the mouthpiece, a metal flap will move," said Bell, "and my words will travel down the wire as an electric current."

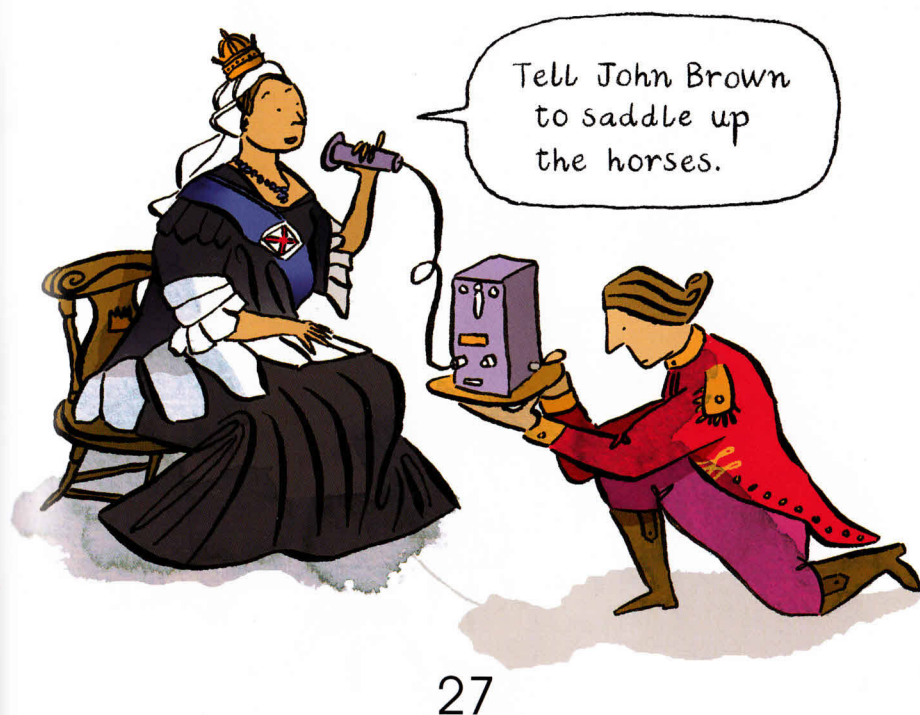
“Then the flap on the earpiece will move,” added Watson, “and I’ll be able to hear you!”

They quickly put their theory to the test. Watson sat alone, holding the earpiece... Suddenly, Bell’s voice boomed out.



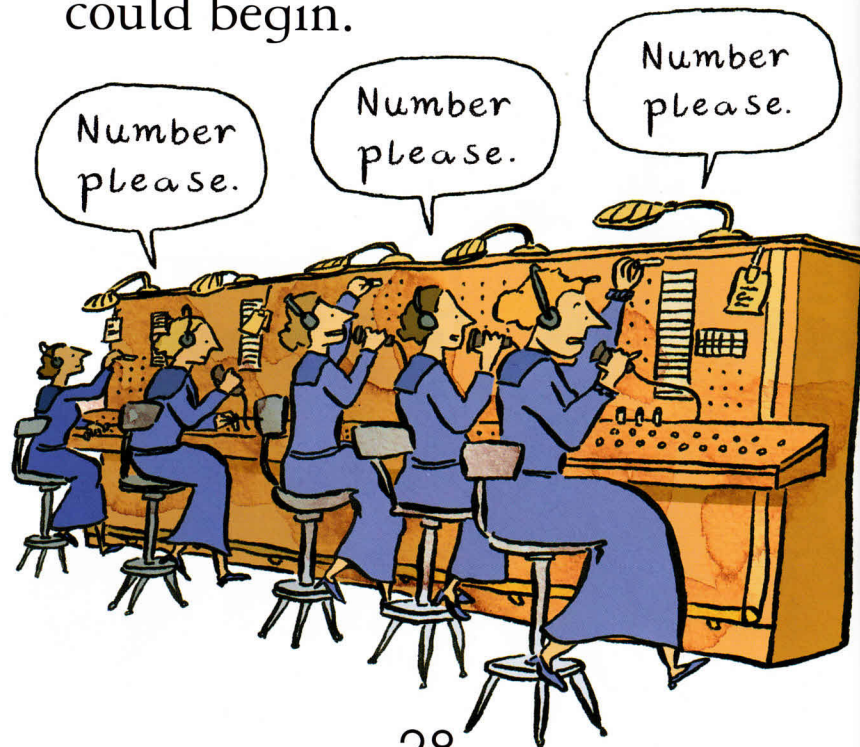
And so the life of the phone began. In 1877, Bell set off through North America and Europe to promote his new invention.

“How modern!” thought Queen Victoria, immediately ordering one for her palace.

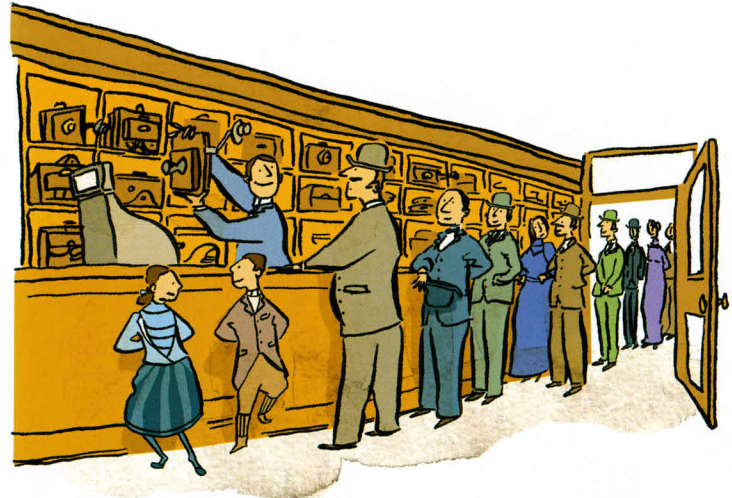


The first phones needed operators to connect people.

“Number please,” said an operator, when someone lifted a receiver. Once the operator had linked two telephone lines together, a conversation could begin.



By the late 1890s, automatic switchboards had been invented and lots of operators were out of a job. Within ten years, everyone wanted a phone.



Early phones had a handle you turned as you listened.



Then there
were boxes
that people
spoke into...



a speaker
shaped like a
candlestick...

and the
cradle phone.



Today, millions of people own
mobiles. A phone with no wire
would have really impressed
Alexander Bell – especially one
that can send pictures too.



Other useful inventions

Before the **wheel** was invented, 5,500 years ago, carrying things and going places took ages.



If it wasn't for Stanislaw Baudry, we'd still be waiting for the bus. He started the first **bus service** in 1827 to take people to his baths outside Paris.



Until 1850, no one had a **refrigerator**. Without fridges today, the food we keep would smell awful.

In 1938, Ladislao Biro was fed up with ink pens that smudged. So, he invented a pen with quick drying ink and called it a...

46

Biro



When people started exploring space, it led to even more exciting inventions.

Have you noticed **bar codes** at supermarkets? They were first used to label the millions of parts that make up a spacecraft.



The material used in **firefighters' suits** and the flexible folds on **ski boots** were originally designed for astronauts.

The first **smoke detector** was made for a space station. Now most homes have one too.

47

