

Build a Better Mousetrap

If you want to butter bread, you spread it with a knife. If you want to open a door, you turn the knob and push. If you want to catch a mouse, you set a trap and wait for it to spring. But is there a better way?

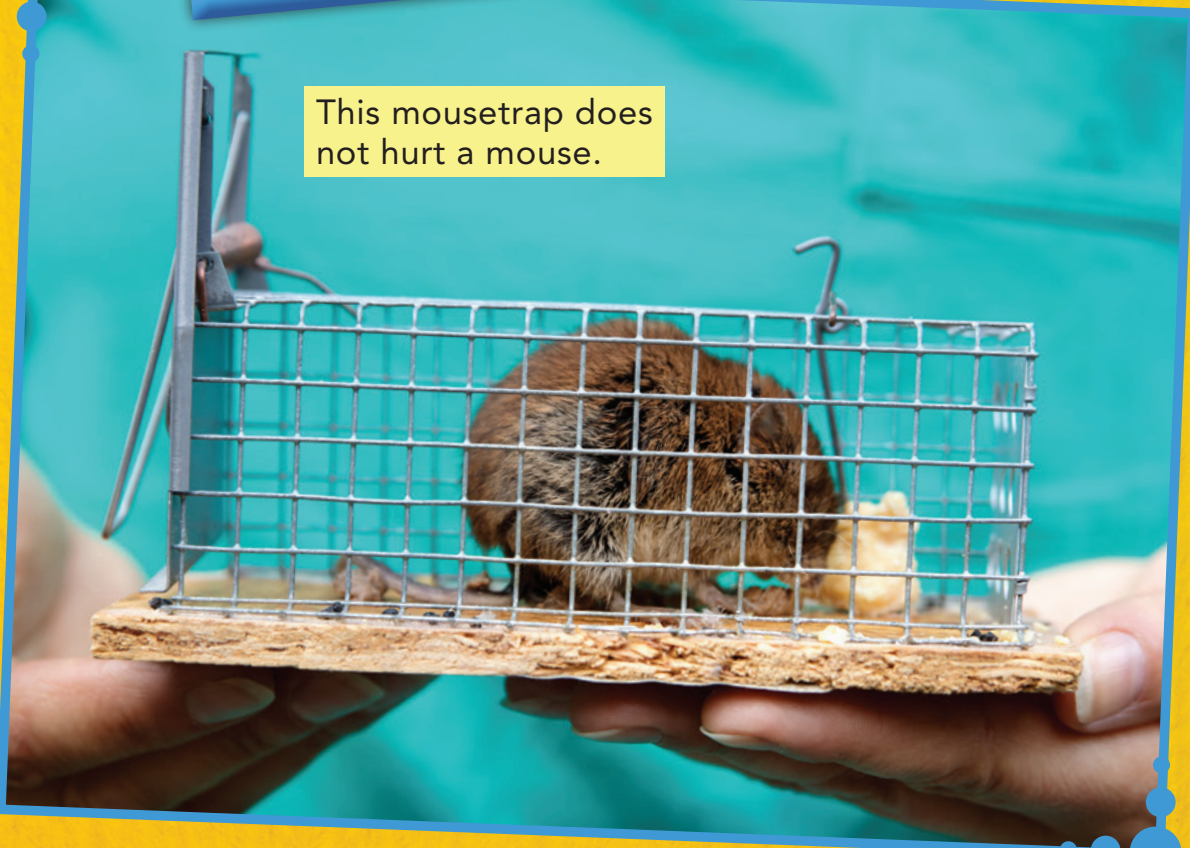
A famous phrase is: "Build a better mousetrap, and the world will beat a path to your door." It means that everyone will want what you made. But if a simple thing works well, is there always a better way?



This mousetrap can hurt a mouse.



This mousetrap does not hurt a mouse.




Hello, Rube!

On the Fourth of July in 1883, a baby boy was born. His name was Reuben Goldberg. People called him Rube (ROOB).

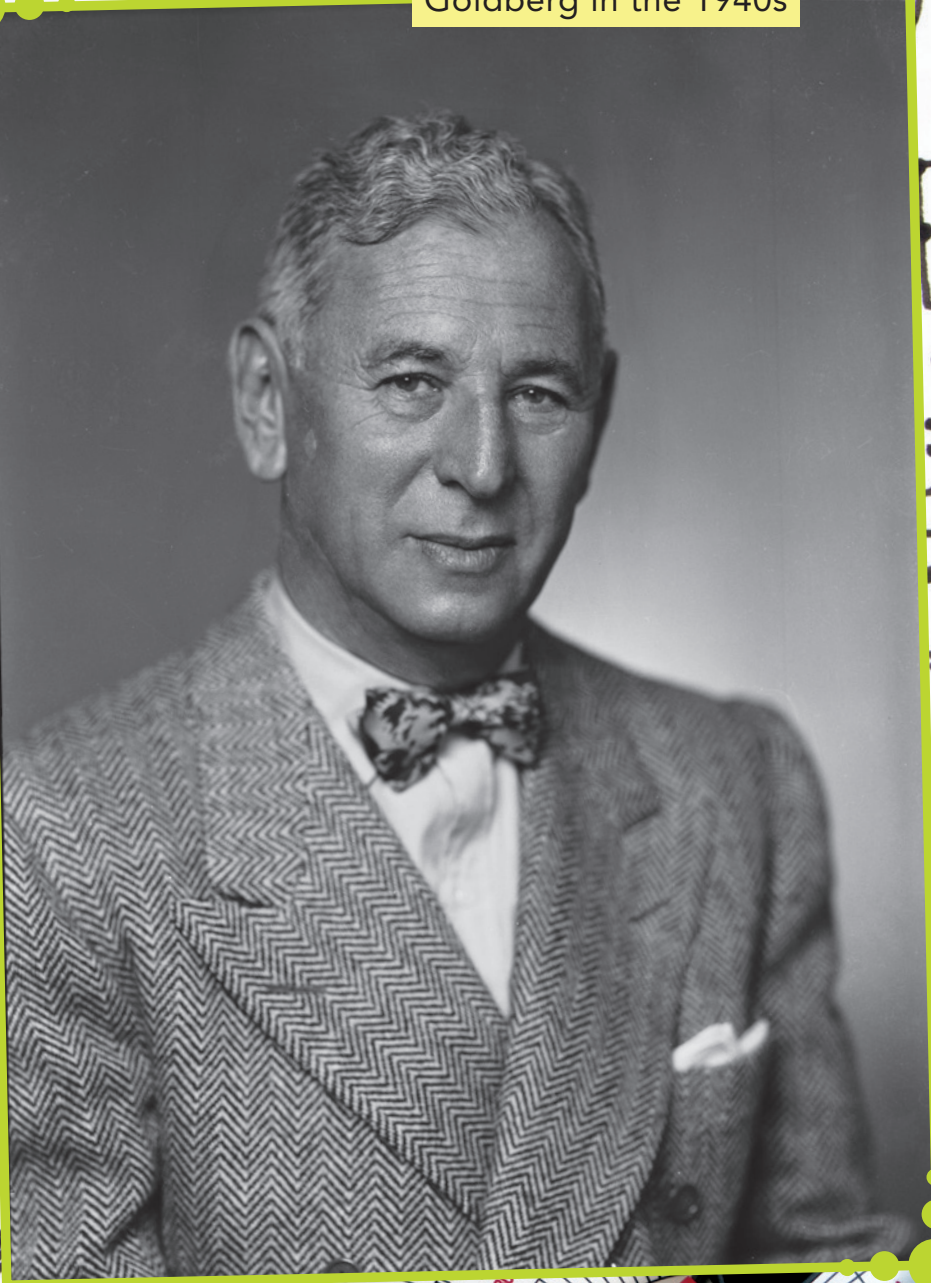
As a boy, Goldberg loved to draw. His father did not think drawing would get him far in life. He wanted Goldberg to become an **engineer**. So, that is what he studied in college. But his love of drawing did not go away.

Later, Goldberg left his high-paying job as an engineer. He became a **cartoonist!** He did not make much money, but it was work he wanted to do.



Goldberg stands with his wife and sons in 1929.

Goldberg in the 1940s



Goldberg drew a lot of comics. Some of them were about serious topics. They made people think. Other comics made people laugh. One of them even won a **Pulitzer Prize!**

Goldberg was also famous for his drawings of machines. The machines used tools to do simple tasks in **complex** ways. They made people laugh.

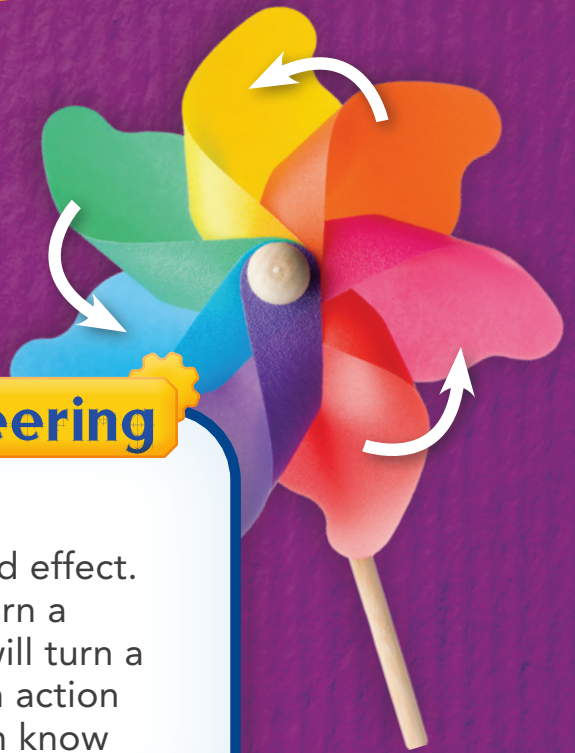
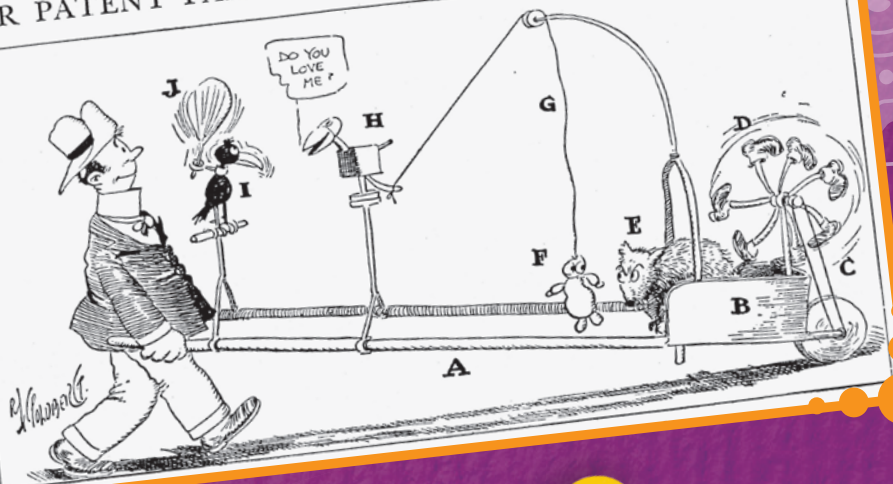
One of his most famous drawings was his napkin machine. Goldberg drew a complex way to use a napkin. It shows a series of causes and effects. The man uses the napkin but never has to pick it up.



This stamp shows Goldberg's "Self-Operating Napkin" machine.

GET ONE OF OUR PATENT FANS AND KEEP COOL

TAKE HOLD OF HANDLES (A) OF WHEELBARROW (B) AND START WALKING. PULLEY (C) TURNS KICKING ARRANGEMENT (D) WHICH ANNOYS BEAR (E) - BEAR SUSPECTS DOLL (F) AND EATS IT, PULLING STRING (G) WHICH STARTS MECHANICAL BIRD (H) SAYING, "DO YOU LOVE ME?" - LOVE-BIRD (I) KEEPS STAKING HEAD (J), CAUSING FAN (K) TO MOVE BACK AND FORTH MAKING NICE BREEZE BLOW RIGHT IN YOUR FACE.



Technology & Engineering

Cause and Effect

Engineers think about cause and effect. They know moving water will turn a waterwheel. They know wind will turn a windmill. They must know each action has a reaction. That helps them know what to expect.