

The Incredible Shrinking Machine

A story by Seymour Simon

Illustrated by Keith Neely



No case is ever too tough for Einstein Anderson, Science Sleuth, and his sidekick Margaret Michaels. Armed only with a talent for scientific reasoning, Einstein and Margaret solve riddles and puzzles many people cannot figure out.

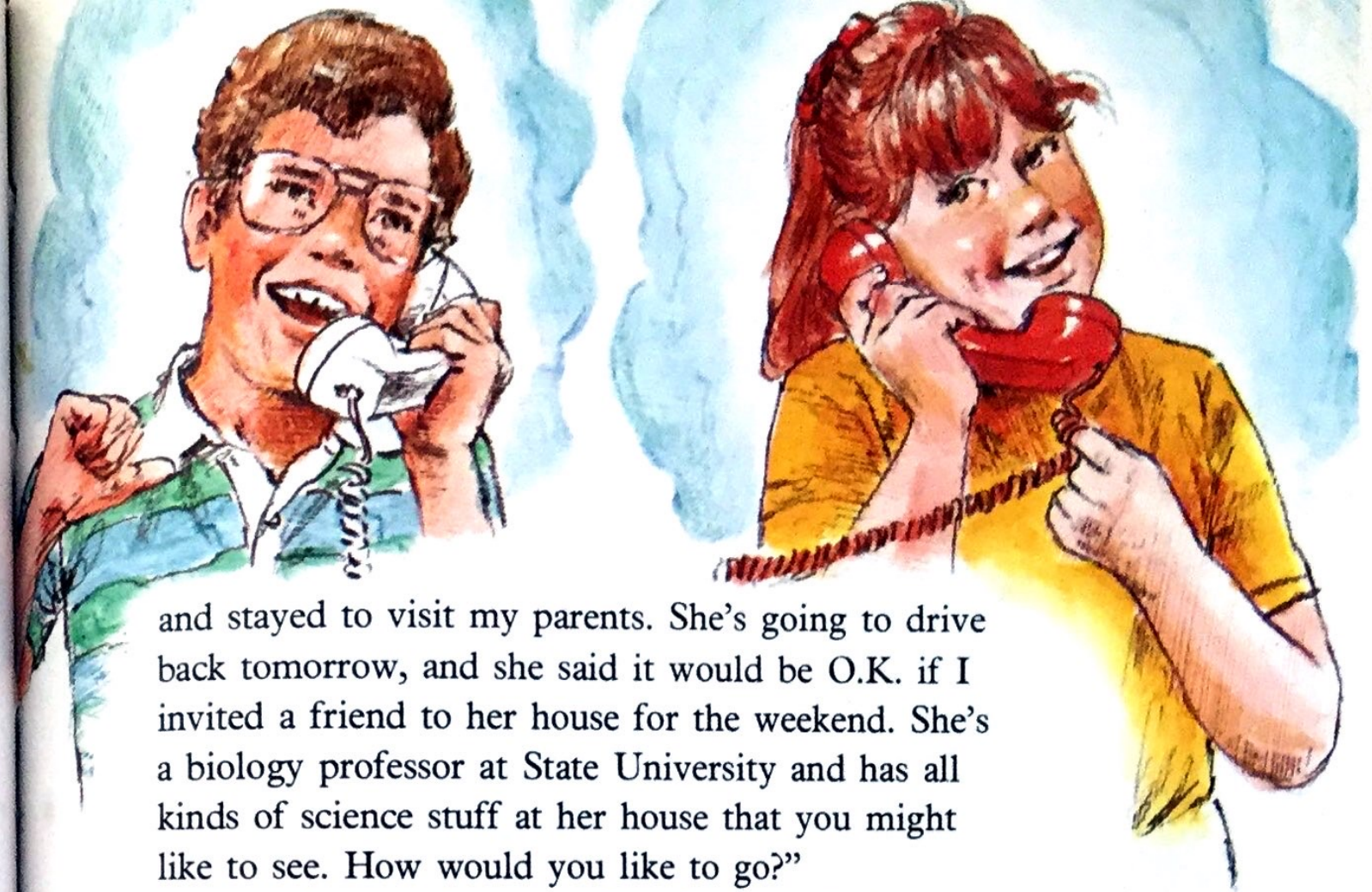
Once in a while, however, Einstein and Margaret try to trick each other to see who is the better science detective. So far, Einstein has always figured out Margaret's puzzles. This time, however, Margaret may have come up with a puzzle that even Einstein cannot solve!

Margaret Michaels was Einstein's good friend and arch rival. Science was their favorite subject. Einstein and Margaret were always talking about important things like atoms, planets, and who was the best science student.

Margaret had left to visit her aunt for a week as soon as school was let out for the summer. Einstein knew that Margaret was back and wondered why she hadn't called him. Finally he decided to call and find out.

"Hello, Margaret, what's happening? How is your aunt? How come you didn't call?"

"Einstein," Margaret said, "I was just about to call you. Aunt Bess drove me home two days ago



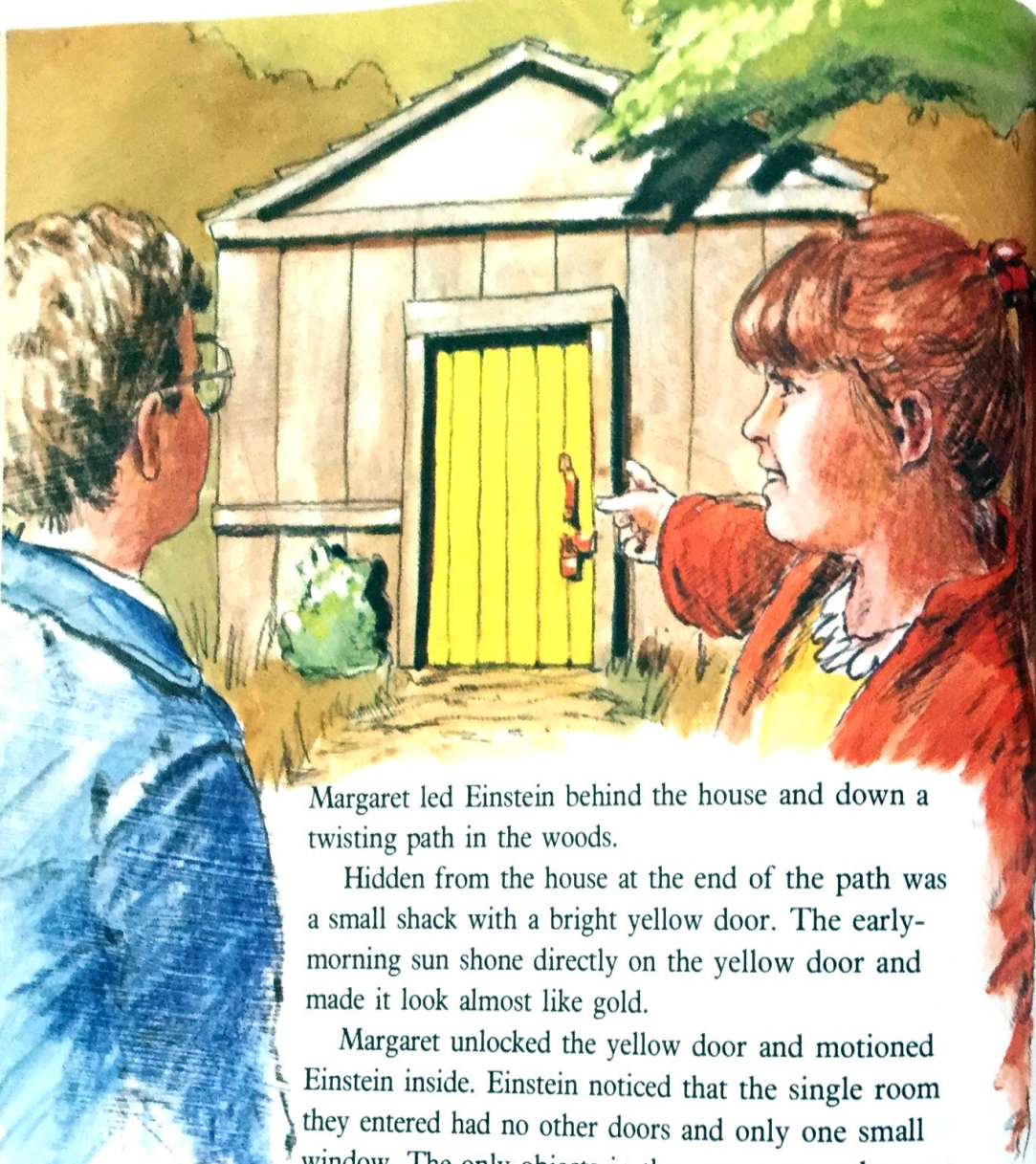
and stayed to visit my parents. She's going to drive back tomorrow, and she said it would be O.K. if I invited a friend to her house for the weekend. She's a biology professor at State University and has all kinds of science stuff at her house that you might like to see. How would you like to go?"

Einstein was about to refuse because his family was going to the beach on Sunday, when Margaret continued.

"Also, I have a science puzzle to show you at Aunt Bess's that even the great Einstein Anderson can't solve."

Well, that changed everything. Einstein couldn't turn down a science challenge from Margaret, so he agreed to go. He spent the rest of the day playing baseball with some classmates and wondering about the puzzle that Margaret had mentioned.

Einstein and Margaret were driven by Aunt Bess early in the morning on Saturday. They arrived at Remsen, a town near the State University, just after 8:00 A.M. Aunt Bess's house was in a sort of clearing surrounded by trees. Instead of first going inside,



Margaret led Einstein behind the house and down a twisting path in the woods.

Hidden from the house at the end of the path was a small shack with a bright yellow door. The early-morning sun shone directly on the yellow door and made it look almost like gold.

Margaret unlocked the yellow door and motioned Einstein inside. Einstein noticed that the single room they entered had no other doors and only one small window. The only objects in the room were a large stone table and a small black box sitting on the table.

"Einstein, look over the stone table closely," Margaret said. "It was put together right in this room. You can see that it is too big to pass through the door or the window. You would have to break it into little pieces to get it out of the room."



Einstein checked the table carefully. He could see that what Margaret said was true. You would need a bulldozer to break up that old stone table.

"I'm now going to switch on my incredible shrinking machine," said Margaret. She flipped a switch on the side of the little black box. Nothing much happened except that the black box sort of burred once and then was quiet.

Margaret motioned Einstein to follow her out. "We'll have to leave the room so as not to shrink ourselves," she said. "But when we come back in a few hours, the table will be gone without a trace. The incredible shrinking machine will have reduced it down to the size of an atom."

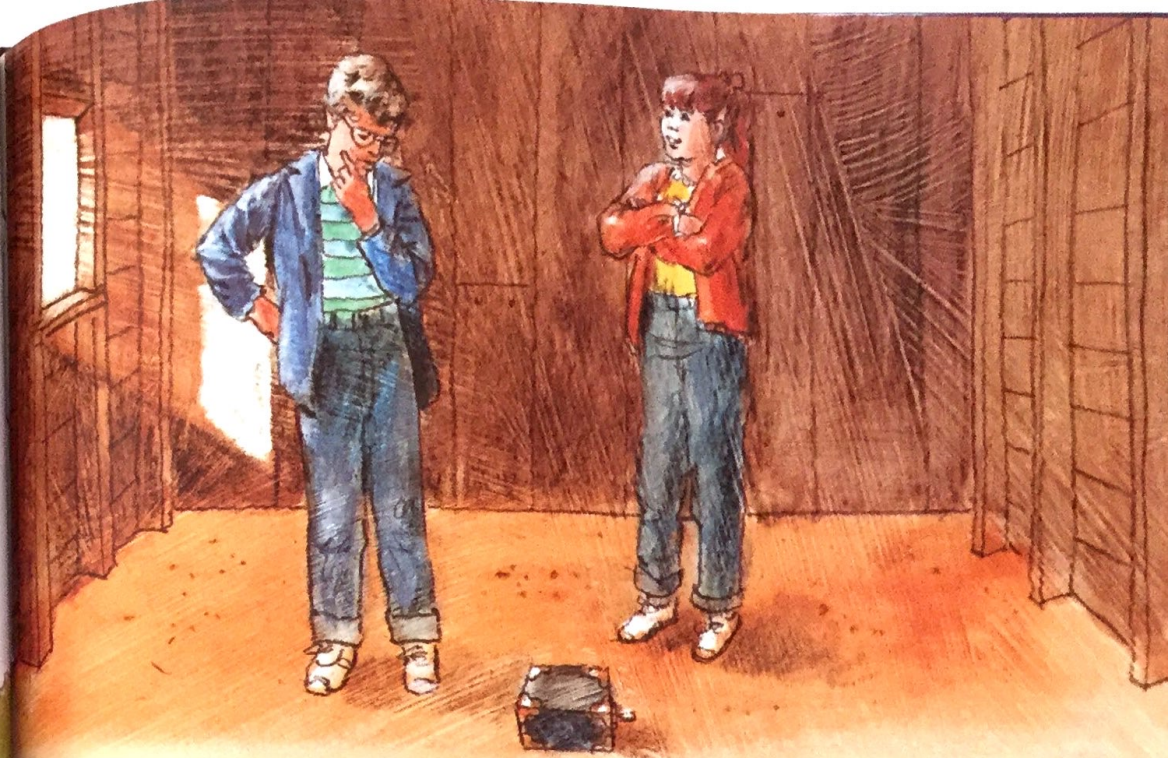
Margaret led Einstein back to Aunt Bess's house. For the rest of the day Einstein and Margaret experi-

mented with chemical indicators such as litmus and brom thymol blue. They used a microscope to look at the protozoa in a drop of pond water. They fed food pellets to Aunt Bess's laboratory white mice. Lunch for Einstein and Margaret was peanut butter and jelly sandwiches.

Aunt Bess started an outdoor barbecue going late in the afternoon. They had grilled hamburgers, newly picked corn, a fresh tomato salad, and watermelon for dessert. It was all delicious and they didn't finish washing and straightening up till eight o'clock.

It was twilight when Margaret led Einstein back by a different path to the shack. They arrived just as the setting sun shone directly on the yellow door, turning it golden, just as it had done in the morning.

Margaret unlocked the door and they went inside. The room looked almost the same: one door, one small window, and one small black box. But the big stone table was gone. Nothing, not even a chip of stone, remained on the floor.



At first Einstein couldn't believe his eyes. Margaret might really stump him this time. How could that big stone table just disappear? Had Margaret really invented a shrinking machine?

Margaret smiled at the look on Einstein's face. "Well," she asked, "what do you think of my incredible shrinking machine?"

Einstein was quiet for a few minutes. Then his face changed and he began to laugh. He pushed back his glasses, which had slipped down. "You almost had me there for a minute, Margaret," he said. "I think I know what happened to the table. And if I'm correct, there is no such thing as an incredible shrinking machine."

Can you solve the puzzle: What do you think happened to the table?

"The key to the puzzle," Einstein began his explanation, "is the sun."

"The sun!" Margaret exclaimed. "What does the sun have to do with the shrinking machine?"

"You know that the sun rises in the east in the morning and sets in the west in the evening," Einstein explained. "Yet both the rising sun and the setting sun shone directly on the yellow door. That's impossible."

"So what's the answer?" Margaret asked.

"Simple," Einstein said. "There must be two doors and two rooms in the shack, one in back and one in front. The sun shone on one door in the morning and on the other door in the afternoon. You must have taken me into one room in the morning but into the other room in the afternoon. The first room contained the stone table. The other room didn't have anything in it."

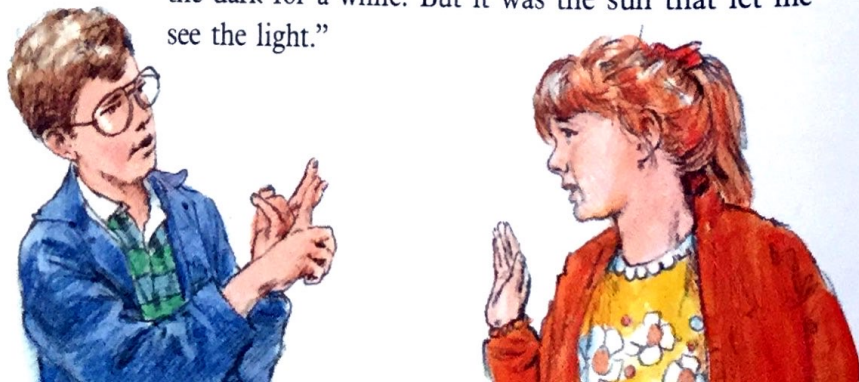
"You're right," said Margaret.

They left the shack and started back to the house. "I see that I made one mistake," Margaret said, shaking her head.

"What's that?" Einstein asked.

"I should have shown you my incredible shrinking machine on a cloudy day."

"Right," said Einstein. "Your machine had me in the dark for a while. But it was the sun that let me see the light."



Think about the story. Finish the chart on page 217 by filling in the puzzle and the clues you noticed. Then answer the questions.

1. Use your chart. Which clue is the most important in solving the mystery?
2. Use your chart. How does Margaret provide a clue each time she leads Einstein to the shack?
3. Imagine that Einstein's visit had been on a cloudy day. How could he have still proven that the machine was a fake?
4. You be the detective. How could you get such a large table into such a small shack without using a shrinking machine?
5. At what points in the story does Einstein Anderson face the unknown?
6. What part do Aunt Bess and her house play in the story? Why are they important?
7. Why does the writer describe the microscope and other "science stuff" for experiments? What might this suggest about a shrinking machine?
8. It is Margaret who describes the shrinking machine as "incredible." What does Margaret say to suggest that the shrinking machine could also be dangerous?

Think and Discuss