HEROES OF HISTORY

# GEORGE WASHINGTON CARVER



## From Slave to Scientist

JANET & GEOFF BENGE

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## *Chapter 1*



# Bushwhackers

**A** sickly baby lay in a roughhewn wooden box beside the feeble fire. His name was George, and his mother, Mary, gently rubbed ointment into his chest in an effort to ease his congestion and lessen the effects of whooping cough. As she rubbed in the ointment, she sang quietly to Jim, her two-year-old son lying on a straw mat on the dirt floor trying to go to sleep. She had just finished a lullaby when the door to the tiny slave hut where she lived suddenly burst open. Mary jumped to her feet, panic-stricken at the terror she saw reflected in her master's eyes.

"Bushwhackers!" screamed Moses Carver, Mary's owner, as he grabbed Jim from the floor. "Quickly follow me."

Nineteen-year-old Mary bent down and scooped up George, pausing for a moment to arrange the thin blanket wrapped around him, his only protection against the cold night air that rushed through the doorway. It took less than five seconds to do, but it was five seconds Mary did not have. Before she could flee the hut, she heard the thunder of galloping horses in the yard and the whooping of men out for sport. She stood rooted to the dirt floor as a broad-shouldered man stumbled through the open doorway of the dimly lit hut.

"We got us one, boys!" he yelled, waving his rifle jubilantly in the air.

A cheer went up as two more men ran into the hut, grabbed Mary by her

cotton blouse, and dragged her outside. Mary clung to George. Moses knelt silently behind a bush near the hut, holding Jim tightly against his chest so the boy would not see his mother being dragged across the yard. There was nothing he could do, though, to shield Jim from his mother's bloodcurdling screams. Moses peered through the branches as Mary was thrown up onto a horse behind one of the bushwhackers. Mary kicked and bit for all she was worth, but the men hit her across the back and slapped her face until her protest was reduced to a quiet whimper.

"Let's go. We've got a lively young one here," laughed the man riding a chestnut mare. "We'd better get her out of here before she starts fussing again."

The men who had dragged Mary from the hut mounted their horses, and with the click of reins, the ten bushwhackers galloped off. Soon everything was silent except for the barking of the hounds tied up in the barn. Despite the silence, Moses stayed hidden behind the bush for several minutes as tears of frustration coursed down his cheeks. He wished he could have done something to help his young slave, but what? It was 1864, and this was southwestern Missouri, one of the most lawless places in all of North America. Tucked between Union Kansas and Confederate Arkansas, southwestern Missouri had become a bloody battleground. Sometimes Neosho, the seat of government for Newton County, where Moses Carver lived, was overrun by Confederates, and other times Unionists had the upper hand and took over the town. Given all the confusion, if a person wanted to steal something and he could muster enough accomplices to help him, there was little anyone could do about it, especially if the crime was committed across state lines.

All this had left the people of Diamond, like Moses Carver, in a difficult position. Diamond, Missouri, lay just forty miles from the Arkansas border and less than twenty miles from both Oklahoma and Kansas, making it the perfect raiding spot.

In fact, Moses Carver's 240-acre farm had been attacked three times before by raiders, or bushwhackers, as they were known, who came looking for Moses' stash of money. Being of German stock, though, Moses was far too stubborn to tell them where it was, though he had paid the price for his stubbornness. The bushwhackers had tied him up by his thumbs and dangled him from a walnut tree. When that did not work, they took red-hot coals from the fireplace and branded the bottoms of his feet. Still Moses refused to talk, and he knew he was lucky they had not slit his throat before they left the farm in frustration. As a result of his treatment, he now walked with a slight limp, and his feet ached after

only an hour or two of plowing. But the tradeoff had seemed worth it to Moses. He might walk with a slight limp now, but the bushwhackers had left him alone, until tonight.

"Where's Mama gone?" Jim finally asked, pulling his head away from Moses' chest.

"I don't know, Jim, but I think we can stop hiding now," he replied, taking the little boy's hand and leading him out from behind the bush.

Moses and Jim emerged into a pool of light from the single lamp hanging in the window of the slave hut. As they did so, Susan, Moses' wife, who had been hiding behind the barn, crept around the corner to see what had happened to her husband and their slave and her two children. "Oh, Moses," she gasped when she saw her husband. And seeing Jim at his side, she asked frantically, "Did they take Mary?"

"Yes," her husband replied gloomily, "and little George."

At the news, Susan Carver burst into loud sobs. "How could they? How could they be so cruel? Baby George is too weak to last a night in this cold. And Mary, dear, sweet Mary. Oh dear God, what will they do with her?" she managed to ask between sobs.

Moses had no answer for her. He knew that the Civil War, which still raged on, had caused some "respectable" white men to act very cruelly. He wished it could all be over and things could go back to the way they were before. But the war had been going on for three years and showed no sign of letting up.

Not surprisingly, the Carvers got no sleep that night. Susan sat in her rocking chair holding Jim as he slept. And every time she looked over at Mary's spinning wheel, she felt more sobs beginning to rise in her chest. Meanwhile, Moses, his face ashen with concern, paced the living room floor, piecing together in his mind a plan to find and rescue Mary and, if he was still alive, which seemed unlikely, baby George. By the time the first rays of sun crept across the farm, it had been settled. Susan would stay in the house with the door firmly barred while her husband rode off in search of his neighbor, John Bentley.

John Bentley was a Union scout, and he knew as much as anyone in the area about the movements of the bushwhackers and which particular group may have raided the Carver farm during the night. Indeed, he had heard rumors that a party of bushwhackers had been active in the area. And it made sense that they would raid the Carver farm, since it was only a short ride across the state line, where they could get easy money selling a fit young slave like Mary.

Eventually, Moses struck a bargain with John Bentley. If John could find

Mary and steal her back, Moses would reward him with forty acres of prime timberland and a racehorse named Pacer. Together they were worth eleven hundred dollars, four hundred dollars more than Moses had paid for Mary when he bought her from a neighbor six years before. This deal seemed foolish to John. It was almost certain that the war would eventually end in favor of the Union army, and such an outcome would lead to the freeing of all slaves. So why would Moses want to spend eleven hundred dollars rescuing her? For Moses, though, it was not about money; it was about loyalty.

Even though the Carvers had bought Mary, they disagreed in principle with slavery and always sided with abolitionists. The approach of the war had created a shortage of young people to hire to work the land, and since the Carvers had been unable to produce any children of their own, they needed help on the farm. In desperation, they had purchased Mary. However, they had never treated her cruelly, and over the years as they struggled through the trials of war together, they had become like family to one another. And now that Mary had been stolen, Moses knew he had to do all in his power to find her and bring her back.

Over the next few days, Moses and Susan waited anxiously for some word from John Bentley. And while both of them knew it, they didn't want to admit to themselves, or to each other, that with each passing day the chances of finding Mary grew slimmer. Finally, after five days, John galloped into the yard and hitched his horse to the post in front of the barn. Susan rushed out to greet him. Her face fell when she realized he was alone; Mary was not with him.

John dipped his wide-brimmed hat. "Sorry, ma'am," he said. "I looked everywhere I could. I've spent days following leads up hills and down valleys, but Mary is nowhere to be found."

Susan brushed tears aside with her apron as Moses emerged from feeding the hogs. "No luck?" he asked grimly upon seeing his wife's tears.

"Well, depends how you look at it," John replied, tugging at the leather belt that secured a cloth bundle to the back of his saddle. "Let's see what we've got here," he said, lifting the bundle down from his horse.

Moses and Susan moved in closer to look as with surprising gentleness John pulled back the layer of cloth.

"Lord be praised!" Susan exclaimed when she saw what was inside. "It's George!"

"More dead than alive, I'm afraid," John added, handing the bundle to Susan, "but I reckoned you'd want the child back even without his mother. Maybe there's something you can do for him."

“How did you find him?” Moses asked.

“I was just a few miles inside Kansas making inquiries when I heard about a scrawny little baby, black as coal, who had been dropped off at a farmhouse by some raiders. I went to investigate, and they were only too happy to give the baby to me. They didn’t think he had any chance of surviving. I took him, and every time I looked into the bundle, he was still breathing. In the end I got some milk to feed him, and…well, here he is!”

“But the farmer couldn’t give you any idea about Mary?” Moses asked.

“Nope. They said they’d never seen the bushwhackers before. I found that hard to believe, but they were about as tightlipped as folk can get. I reckon I was lucky to get the baby back.”

“Well, come in and have something to eat,” offered Moses.

Susan was already inside unwrapping George and preparing a place for him beside the fire. “He’s hardly breathing,” she said softly. “He was sick before they took him, and with the ride and the cold air, I’m not too sure he’ll make it through another night.”

“You never know,” Moses said, resting his callused hands on his wife’s shoulders. “If anyone can bring back a baby from the dead, it’s you.”

Susan nodded. “I’ll do my best. When Mary comes back I want to be able to tell her I did all I could for George.” She bit her lip to stop herself from crying as she spoke. When she had regained her composure, she turned her attention back to George. She had to save him. She had to nurse him back from the edge of death. She owed it to Mary.

## *Chapter 2*



# Questions

**E**ight-year-old George stood quietly stroking the spokes of his mother's spinning wheel. He hardly dared take a breath lest he break Aunt Susan's concentration. It was rare that Susan talked so freely about his mother, Mary. Normally when Aunt Susan tried to talk about Mary, deep sobs would overcome her before she could get her words out. But this morning was different. For some reason, Susan Carver was ready and able to tell George the story of how bushwhackers had stolen him and his mother from the farm one night.

When Susan was finished recounting the event, George asked softly, "Did you ever hear from her again?"

Susan Carver shook her head, and tears began to gather in the corners of her clear blue eyes. "No, and I fear the worst," she replied. "When the slaves were freed right after the war, I know your mother would have come back to us if she had been able."

George nodded, and despite Aunt Susan's willingness to answer his question, he didn't want to ask any more. His shoulders were already slumped forward with the burden of what he knew. His mother was gone, and his father was dead, killed in a logging accident on the farm next door before George was born. As far as he could work out, the only family George had left was his ten-year-old brother Jim and the Carvers, who had unofficially adopted the two boys

when the Emancipation Proclamation became law.

"May I go and tend my plants?" George finally asked.

"Yes," Aunt Susan said, tears still evident at the edges of her eyes.

George was glad to be outside in the warm spring air. His head brimmed with disconnected thoughts and questions about slavery and people who would steal a woman as if she were a dog or a horse. Then, as he walked across the yard, the thought struck George that this was exactly where his mother, still clinging to him, had been dragged onto a bushwhacker's horse and stolen from the farm, never to be seen or heard from again. The thought was intense…and painful. George hurried on, uncomfortable with the emotions the story of his mother's kidnapping had stirred within him.

George skirted the edge of the freshly plowed field and waved to Uncle Moses and Jim, who were planting inch-high cabbage plants in the dark brown soil. At the huge chestnut tree at the far end of the field, George turned left and headed into the woods. There the turmoil he felt over his mother's being stolen by bushwhackers began to subside. His mind stopped whirring with questions about the incident, and he felt at peace, as he always did when he walked into the woods.

The woods were George's secret world—the place he loved to be most of all. Sometimes George would follow the tracks of wild turkeys or climb a tree to catch a peek at a nest of newly hatched bluebird chicks or wade in the creek looking for unusual shaped rocks. Best of all, though, George liked to search for new plants to add to his collection. And it was quite a collection. Into a garden in a large semicircular clearing in the woods, George had transplanted one specimen of every new plant he found. He knew exactly what kind of conditions the plant preferred in the wild, and he tried to match that in his garden. He had plants growing in the shade, in the sun, in damp hollows, and on top of small mounds he had built up.

Even though he was only eight, George already had quite a reputation around Newton County. He was known as "the little plant doctor." The Carvers' friends and neighbors often brought over sick or dying plants for George. Some of the plants had yellowing leaves; others had strange black dots on their stems or little mites that chomped away at them. George loved the challenge of trying to make each plant strong and healthy again. Nothing was too much effort for him when it came to caring for plants. During the winter he had dug a large trench in the clearing in the woods and put his plants in it. He laid boards over the top of the trench so the plants would not freeze. Each sunny day he went to

the clearing and took the plants out of the trench and placed them in the sunlight.

George had an excellent memory and could recall all sorts of details about plants, animals, and insects. He had to have a good memory, because he could not write down any of these details. It wasn't that he had no paper or pencil to do so; he simply could not read or write. George had never been to school. There was a one-room school less than a mile away in Locus Grove, but since it was for white children only, George could not go.

Being unable to read and write frustrated George greatly. The boy's head was filled with questions about plants and animals and insects, and George was certain that if only he could read he could discover answers to these questions.

Uncle Moses knew a lot about practical things and had taught George much, but not how to read and write. George had watched Uncle Moses as he attracted bees with the smell of honey and beebread and then followed the bees back to their hive. When he found the hive, Uncle Moses would cut down the tree it was in and detach it. He had collected over fifty thriving hives this way, and they now produced more than enough honey for the Carvers.

Uncle Moses knew how to breed hound dogs, which he sold as hunting dogs to rich people in the county. He also knew how to plow the straightest furrows George had ever seen.

Aunt Susan was smart, too. She spun wool and flax into thread, wove the thread into cloth, and sewed that cloth into the clothes they all wore. She also pieced together shoes from the horsehides and cowhides that Moses tanned in the barn during winter.

The fact was, there was virtually nothing practical that the Carvers could not do. The only things they did not produce on the farm were sugar and coffee, and they traded vegetables and honey for these commodities from people in town.

Despite all that George had learned from Moses and Susan Carver, the questions that bobbed around in his mind went unanswered. Why did the sky turn red at sunset? How could he tell the age of the eels he caught in the creek? Why wouldn't the grass grow under pine trees when it grew under oak trees? George longed for answers to these and hundreds of other questions like them.

As he dug around the roots of a new plant he had stumbled upon, George thought about the problem. He knew Aunt Susan could read, and he wondered whether he should ask her to teach him. He didn't really like asking her for things, though. Not because she was mean or unkind when he made requests, but because she was always busy. So was Uncle Moses, and the two of them

expected Jim and George to be busy, too. And given all the work the farm involved, George worried that learning to read and write might be one of the "frivolous" things Uncle Moses warned him against.

By the time George walked back through the woods, stooping every few feet to examine animal tracks or a feather or a bug, he had convinced himself it was time to ask Aunt Susan about learning to read and write. As he walked, he practiced out loud what he would say, since he stammered badly. Not only that, his weak chest and constant coughing as a baby had left him with a high, squeaky voice that got squeakier when he was nervous. So he practiced hard exactly what he would say.

Much to his delight, Aunt Susan seemed to understand George's longing to learn to read and write. "Let me see," she said, putting down her knitting needles. "I think I have an old spelling book somewhere around here." As she walked over to the trunk in the corner, George's heart beat faster. Had such a treasure been hidden in the house all along?

A minute later, Aunt Susan pulled out a worn, dog-eared blue book. "This might help you," she said. "It's a copy of *Webster's Elementary Spelling Book*. I can work with you on the letter sounds, but you will have to practice by yourself."

And practice is exactly what George did. Within weeks he had memorized the entire spelling book. He now knew that letters represented various sounds and that these sounds, when put together, made words. And he could read the letters and say the word they made. Yet for all this, George still didn't know enough about reading to find the answers to his many questions.

After he had worked through the spelling book, Aunt Susan did not know what to do next with George. In the end she advised him to keep learning things on the farm and wait, which is exactly what he did.

Not too long after learning to read from the spelling book, George was out searching for bugs and found himself on a neighboring farm that belonged to the Baynhams. George decided to pay Mr. Baynham a visit and ask about the cuttings he had given him. The farmhouse was much larger than the Carvers' and much more grand. Despite the fact that Moses Carver owned one of the most prosperous farms in the area, he did not like to spend money on unnecessary items. He had told George that German people like himself believed in thrift, buying only what you needed and then squeezing every last drop of use from what you had. As far as George could see, there was nothing wasted in the Carvers' home, including extra space for a fancy dining room and parlor like the

Baynhams had.

George called out from the kitchen steps of the Baynhams' house, but no one answered. He pushed the door open and called again. Still no answer. George stepped inside, and then an irresistible urge seized him. He had once overheard Aunt Susan talking about the Baynhams' grand parlor, and now he wanted to see it for himself. And since no one appeared to be at home, he began wandering around quietly. He kept his hands behind his back, so as not to touch anything.

As he walked through the kitchen, George noted the new cast-iron stove. It had polished edges and facings, and it looked much more efficient than the old wood stove with the pitted top that Aunt Susan cooked on. George walked to the end of the hallway and then made his way into the parlor. Once inside he stood transfixed. The room contained every luxury imaginable. Not only were the chairs padded, but they were also upholstered in rich red velvet. The wood floor was highly polished, unlike the scuffed floor in the Carver house, and a Persian rug with leaf motifs on it adorned the floor in the center of the room. But best of all to George were the walls. They were covered with the portraits of generations of Baynhams, who stared down regally at him. George had never seen a painting before, and he walked up to one for a closer look. He noticed the brush strokes, the vivid colors, the way the eyes of the subject seemed to be alive. It all captivated him, the same way the rarest plant in his collection did.

It was a long time before George could stop staring at the paintings. As he looked at them, one thought kept going through his mind: *How amazing that a person could create these beautiful paintings.* Then after a while, a second thought struck him. *Maybe I could make things like this, too.* Finally a cat walked into the parlor and broke the spell the paintings had cast over George. Suddenly he knew what he had to do next—he had to paint something.

As he raced home through the woods, George came to his senses. He would never be able to paint anything while he lived with the Carvers. They were far too sensible to buy him brushes and paints and paper for painting. He slowed his pace to a walk and sighed. Every single thing Uncle Moses and Aunt Susan did was practical, and there was nothing practical about painting beautiful things.

Finally George decided to sit down on a stump, since there was no point running home to tell the Carvers about painting. As he sat, he noticed a bush with tiny, fluffy yellow flowers on it. He had seen this bush many times before, but now he looked at it differently. Excitement surged through him. What if he were to collect some of the flowers and crush them until juice flowed from

them? Could the juice be used as a yellow paint? And what about the wispy buds on the flax plant? If he tied a bunch of them together around a twig, could that serve as a brush? And instead of paper, what about painting on the back of flat pieces of hickory bark or on smooth stones from the creek? The woods seemed to come alive to George with possibilities for painting.

After this, George could think of little else but tending his plants and experimenting with his new hobby. He tried many different things as paint; some worked and some didn't. He crushed berries and roots, dirt and leaves, to make vibrant colors and used flax buds to apply the paint to anything that would work as a "canvas." He painted on bark, stones, old boards, scraps of leather from Uncle Moses' tanning, and bits of fabric left over from the new skirt Aunt Susan had made for herself. And what did George paint? There was no question in his mind that he should paint all the wonderful things in the woods: flowers, trees, bugs, squirrels, even rocks in the creek.

As happy as George was with his new hobby, it stirred within him the desire to learn more. He felt sure there were many other things he could do, if only he could read and write better. But how could he learn to read and write better? He was an undersized black boy, now ten years old, and with no money of his own to pay for education. He didn't know what to do. All he knew was that he wanted to learn more, and not just from Uncle Moses, but in school.

George did not know it then, but he was about to get the confidence he needed to strike out on his own. It came in the form of a strange experience, one he could not fully explain, even after he had become an adult. This experience happened at the same time that George was making a pair of crutches for a boy on a neighboring farm who had fallen from a tree and broken his legs. To fashion the crutches, George used the sharp hunting knife that Uncle Moses had loaned him. The more George whittled and shaped the wood with the knife, the more he wanted a knife of his own, until he wanted one so much he thought he would burst.

One night he lay in bed thinking about all the things he could do if he just owned his own knife. As he drifted off to sleep, a strange, vivid dream gripped his mind. In the dream he saw three stalks of corn, and on the dirt beside them was a half-eaten watermelon. Beside the watermelon was a small pocketknife with a black leather handle and two blades.

Most times when George woke up, he could not recall his dreams, but not this morning. The dream stuck in his mind, and he had the strange idea that it was more than a dream. He wondered whether someone, God perhaps, was

trying to show him how to get a knife of his own.

As soon as he had finished milking the cow that morning, George ran out into the cornfield. He searched up and down the rows, looking for three cornstalks together as he had seen in his dream. Suddenly, there they were in the next row. As he peered at them, George could feel the goosebumps rising on his arms and legs. On the ground beside the cornstalks was a half-eaten watermelon, and beside the melon was a small knife, exactly the way he had seen in his dream.

George stood for a long time staring at the scene, almost too scared to pick up the knife. Perhaps he was still dreaming. Perhaps when he reached down to pick up the knife the whole scene would evaporate. Finally, he reached out gingerly and grabbed the knife. It was real! He rolled it around in his trembling hands.

Throughout the days that followed, George continually touched the knife in his pocket. Each time his fingers ran over the leather handle, confidence surged within him. Perhaps, just perhaps, dreams could come true. Maybe a ten-year-old black orphan boy could go off in search of an education. And maybe God, or whoever it was who had shown him the knife in the cornfield, would watch over him as he learned to read and write better, even if that meant that he had to go far away from everything and everyone he had ever known.

## *Chapter 3*



# In Search of Knowledge

**P**acking his few belongings into a kerchief was the hardest thing eleven-year-old George had ever done in his life. Conflicting thoughts wrestled with each other in his mind. On the one hand, George was excited by the opportunities that lay ahead, yet on the other hand, he was terrified at having to make his own way in the world. He chided himself for not being more like his brother. Jim was content to read and write a few simple words and work with his hands around the farm. But deep in his heart, George knew that he was very different not only from Jim but also from anyone else he had ever met. He had to know the answers to the questions he had, no matter how hard those answers might be to find or what the cost might be.

Aunt Susan, Uncle Moses, and Jim stood quietly at the door of the farmhouse as George set off down the road. As he turned to give one last wave, George saw Aunt Susan wiping away tears with the corner of her apron. Tears dripped onto George's cheeks, too, but he would not turn back now. He had made up his mind, and he was determined to follow his quest for knowledge to the end.

It was a long, lonely, dusty eight miles George walked that afternoon. As he walked, he often reached into his pocket and felt his knife to remind himself that someone was watching over him.

The sun was low on the horizon by the time George finally reached Neosho. George went straight to the schoolhouse, a rather ramshackle structure about fourteen feet wide and sixteen feet long, with one door, four windows, a sloped roof, and a chimney. Within the school's walls, George hoped to find answers to his questions. First, though, he had to find somewhere to live.

To the right of the schoolhouse was a small cabin made of roughhewn timber. Firewood was stacked precisely against a small shed at the back of the cabin. For want of anything better to do, George strolled over and sat down on top of the woodpile. By now his stomach was beginning to contract with hunger pangs. To take his mind off this gnawing feeling, he studied the backyard of the cabin in the fast fading light of dusk. He made a game of trying to learn as much as he could about the people inside the cabin from their yard. He noted the extra long clothesline, three times as long as Aunt Susan's. He also noted the chicken coop and the boots neatly lined up on the back porch.

After George had been sitting on the woodpile for about twenty minutes, a slim black woman emerged from the back door of the cabin. She carried a bucket of dishwater, which she threw on a nearby bush. George held his breath, wondering whether the woman would notice him.

The woman lingered on the porch for a moment, and then she spotted George. He could see her smile through the gloom that was all that remained of daylight.

"Come over here, boy," the woman said in a kind voice. "Tell me who you are. I don't think I've seen you before."

George scrambled off the woodpile, smoothed down his jacket and pants, and walked across the yard. He stood at the bottom of the steps and looked up at the woman on the porch. "I'm George, ma'am," he said.

"George who?" she asked.

George hesitated for a moment. This was a question he had never been asked before. Everyone in Diamond knew him as George, or "the little plant doctor." Truth was, George didn't have a legal last name. A child who was born a slave did not need one. A slave could not marry, own land, open a bank account, or do anything else that needed something as official as a last name. In the end, George supposed his last name should be Carver, since that was Uncle Moses' last name.

"George Carver," he finally replied, adding, "from Diamond."

"And what's a young man like George Carver from Diamond doing sitting on my woodpile when the moon is ready to come out?" There was a soft, kind

tone in her voice, even though she put her hands on her hips and a serious look settled on her face.

"I'm waiting for school to open in the morning, ma'am."

"And where do you intend to sleep tonight, George? The woodpile is going to get mighty hard after a while."

"Well," replied George, thinking of the clothesline behind him, "you won't find anyone better than me at doing laundry, and I could help you with the apple tree yonder. It needs some doctoring, or those buds will never turn to fruit."

The woman smiled. "You can call me Aunt Mariah," she said. "And I like someone who knows the value of work." She bent down and patted George on the shoulder. "I'll tell you what. If you help me with the laundry I take in and keep the yard raked and the chickens fed, you can stay with us while you go to school."

George felt a lump rising in his throat. "I'd be very happy about that," was all he could think to say.

An hour later George was settled into his new home. Mariah Watkins and her husband, Andy, lived together in the small three-room cabin. George was fed a hearty dinner of chicken dumplings and some of the best apple pie he had ever tasted. Aunt Mariah set up a mattress for him to sleep on in the corner of the living room. Before he lay down on it that night, George opened his kerchief and set his treasures out on the floor beside him. There were ten of his most favorite rocks, the ones he simply could not leave behind, several tiny wooden figures he had whittled with his knife, a collection of frog bones he was studying, and a folded piece of paper. The paper was something Aunt Susan had given him the day before. It was the bill of sale for his mother, Mary, with seven hundred dollars neatly written across one side of the paper. George ran his fingers over his rocks and felt his carved wooden figures before he put everything back in his kerchief and lay down. As he drifted off to sleep, many thoughts tumbled around in his mind. What would his mother have thought of his going off to school? What would she have thought about his being a free person who could make his own decisions in life? Would she be proud of him? George hoped she would.

The next morning George awoke to the smell of fresh brewed coffee. He got himself up and dressed quickly so that he could help Aunt Mariah set the table for breakfast. George himself was too excited to eat more than a few spoonfuls of the cornmeal mush Aunt Mariah had made for him. As soon as the dishes were washed and the table wiped down, George hurried out the door to school.

Shyness overcame his excitement, however, as George climbed over the Watkinses' fence into the school yard. He had waited so long for this moment, and now his feet would not take him into the schoolroom. Instead he stood by the flagpole watching as other children straggled into the school yard. Most of them looked younger than he, though there were a few big boys, bigger than his brother, Jim. These were the poorest children he had ever seen; many were in bare feet, and their clothes were two sizes too small. Eventually a small girl with cornrows in her hair came out of the schoolhouse carrying a bell. She rang it with great gusto and then called out to George, "You comin' or not?"

George nodded, took a deep breath, and walked inside for his very first day of school.

Inside, the teacher introduced himself as Mr. Frost and instructed George to sit in the front row with the beginning readers. By lunchtime George had been promoted to the middle of the room. Mr. Frost was surprised by how much George had managed to learn on his own.

When the noon bell rang, the other children took their lunch pails and found a spot outside to sit and enjoy their lunch, but not George. He had an appointment with a tub and scrubboard. Aunt Mariah had hot water and soap waiting when he arrived, and George settled straight into scrubbing clothes. Much to Aunt Mariah's astonishment, he had them all scrubbed, rinsed, and hung on the clothesline by the time the bell rang for the start of afternoon class.

After his first day at school, life settled into a happy routine for George. He attended school from Monday through Friday, coming home at lunchtime to do the laundry, though he soon mastered the art of reading a book while he scrubbed. On Saturdays he went to work with Uncle Andy, who contracted his labor out to various farmers in the area. Then on Sundays he went to church with the Watkinses. This was something George had never done before. The Carvers had not been churchgoers. Moses Carver had said he preferred his own company to that of just about anyone else, while Susan Carver always said she was too busy to attend church. Now George went to church every Sunday morning. And not just any church, but an African Methodist church set up and run by ex-slaves especially for other ex-slaves.

It didn't take George long to find out that the Watkinses not only went to church on Sunday but also lived the way the pastor said they should all the other days of the week. They were kind and hardworking, two traits that won them the respect of all the people in Neosho. Aunt Mariah gave George a special gift, a small, black leather-covered Bible. It was a good thing it was small, because

George promised himself that he would take it with him wherever he went. Not only that, he also promised that he would read it diligently for the rest of his life. He knew the Bible contained the answers to his questions about God, but that still left him with a lot of other questions to find answers to.

By the time he had been in Mr. Frost's class for a year, George was sitting at the very back of the room. He knew far more than anyone else in school, including Mr. Frost. Mr. Frost actually knew very little besides how to read and write and do simple math. He would not have been qualified to teach in a school for whites, but since there was a desperate shortage of black teachers, he was allowed to teach children in black schools.

When reconstruction began, many white Northerners flooded into the South eager to help build an equal system of education. But as funds for such projects began to dwindle, enthusiasm ran low. A number of these Northerners were also murdered by angry Southern whites who did not think it fitting for a black child to get an education from a white person. As a result, most of the Northerners eventually returned home. This left school boards scrambling to find black teachers, who were few and far between. Before the Civil War, it had been illegal to teach a slave to read or write, and consequently there were not many educated Southern black adults. Because of this, Mr. Frost was as educated as most of the other black teachers in Missouri.

As George fed the chickens and washed clothes at lunchtime, he often thought about his dilemma. Now thirteen years old, he again found himself in a happy home but with no way to learn anything new. To learn more, he would have to go farther afield. It was not a decision George wanted to make. He knew Aunt Mariah and Uncle Andy would be upset if he told them he was leaving, and he was content in Neosho. Yet what else could a person in search of knowledge do? George decided that once a student knew more than his teacher it was time to move on, no matter how daunting such a move might seem.

Around 1876, many black families in and around Neosho began packing up the little they owned and heading northwest into Kansas. There they hoped to both lay claim to new land that was being opened up to settlers and leave behind their slave roots in southern Missouri. George heard of a family from church planning to move to Fort Scott, Kansas, and he asked if he could travel there with them. He knew that Fort Scott was at least twice the size of Neosho and that it had a very good high school for black students.

Mariah Watkins wept when George left, but she told him she understood why he had to go. "Education is the key," she told him. "You get yourself an

education and there's nothing you can't do."

It took several days for the mule train to wind the seventy-five miles to Fort Scott. Along the way, George made himself as useful as possible, taking care of all sorts of chores. When the mule train finally arrived, George was once again confronted with the question of where to live. Someone suggested he should try to find a job working in one of the large houses on the east side of town to earn the money he needed to finish his schooling.

Soon after arriving in Fort Scott, George changed into his best church clothes and set out to look for work. The first house he came to was a three-story clapboard structure with a large veranda that wrapped almost all the way around it. George looked at the neatly painted trim and the lace curtains that adorned the windows and decided it looked like a friendly place. He walked around to the kitchen door at the back of the house and knocked politely.

A tall blond woman opened the door. "May I help you?" she asked.

There was a long, silent pause while George gathered his courage. Finally he managed to squeak out in his high-pitched voice, "I'm looking for a job, ma'am. I can do just about anything."

"Can you cook?" the woman asked doubtfully. "That's what I'm looking for. Our last cook went north nearly two weeks ago, and I have not been able to find a suitable replacement."

George gulped. He could cook a little, but probably not the kind of meals a fancy white woman expected to eat. He could not imagine her sitting down to a big pot of beans and hog bones. Still, he did need a job, and he was a fast learner. "Yes ma'am," he replied, surprised by the confident sound of his own voice. Then he had an idea. "Of course, every family likes things cooked their own special way. If you show me just how you like your food cooked, I'll make sure everything is cooked that way for you."

The woman smiled. "Now that sounds like a good idea. My husband, Mr. Payne, is particularly fussy. Let's try you out and see how you do."

Later that day George moved into the servants' quarters at the Payne estate. Mrs. Payne showed him exactly how she liked her biscuits prepared and how to make her favorite piecrust. She also showed George how the family liked their roast beef cooked and what ingredients to use in the meatloaf. George quietly watched what she did and remembered every single step. He did not dare tell her he had never made anything like it before.

Much to George's relief, he was able to copy what Mrs. Payne did and produce dinners that met with her approval. Indeed, it didn't take long before

George began to experiment at improving the recipes, and Mrs. Payne soon declared him to be the best cook she had ever employed. Not only that, she also entered some of his baking in the county fair, where George won prizes for his buttermilk batter biscuits and yeast bread. The other women in the neighborhood were soon envious of the Paynes' new cook.

Slowly, George watched his savings grow. When he had enough money, he quit his job, moved into a tiny room in town, and went back to school. When his money ran out, he got another job and repeated the process. It was a slow way to get an education. But even when he was working and not in school, George continued learning on his own, reading borrowed books and taking notes on them.

George may well have gone all the way through to graduating from high school in Fort Scott except for two experiences that he would never forget. The first of these experiences occurred after he had been living in Fort Scott for three years. One day as he walked through town, two white men planted themselves firmly in his path. George fought back fear as they sneered down at him.

"What you doing carrying those books, boy?" asked the man with a scar across his cheek.

"They…they're my schoolbooks, sir," George stammered.

"Ha!" the other man snarled, jabbing his partner with the scarred cheek in the ribs with his elbow. "You ever heard anything that ridiculous? A black boy saying he can read them books!" The man's voice quickly turned from menacing to hateful. "No, boy, I'll tell you where you got those books. You stole them from a white child, didn't you?" he goaded.

George looked around wildly for help. He sensed these two men were not going to let him alone until they had hurt him. There were many people in the street that afternoon, mostly white folk who walked by George and the two men and looked the other way. George tried to back away slowly, but the man with the scarred cheek grabbed his collar and twisted it viciously. As he did so, the other man yanked the books from George's hands.

"Let me show you what happens to black boys who get too high and mighty for themselves and go around stealing white people's books."

Wham!

George keeled over backward as a hard fist connected with his stomach. Searing pain shot through his body as he lay in the dusty street. Instinctively, he curled himself into a ball and put his arms around his head for protection. As he did so, the toe of one of the men's boots slammed into George's neck, followed

by another kick and then another. George cried out in pain, but this only seemed to incense the men, who cursed at him and kicked him harder. All the while, George was conscious of people walking around him, but no one seemed to care about rescuing a skinny black boy from the grasp of two white bullies.

Eventually, the two men grew tired of tormenting George, and they swaggered off down the street, laughing and congratulating each other on the fine beating they had just dispensed.

When the men were finally gone from sight, George sat up slowly. He dug around in his pocket for a handkerchief to hold against the gash on his forehead. He crawled across the street to a tree and propped himself against it. He hoped the men had left his books behind when they had finished having their "fun" with him, but they had not. All of George's school notes and the textbooks he had worked so hard to earn the money to buy were gone. As he sat there, slumped against the tree, George's enthusiasm for going to school began to drain from him like the blood that flowed from the wound on his forehead. What was the point? Without books he would not be able to learn anything, and he had no more money to replace the books the men had taken.

George sat for a long time with his back against the tree before he felt strong enough to get to his feet and stagger back to his tiny cabin. As he did so, he thought about what he would do next. Obviously, he would quit school the following day and get another job. And maybe, just maybe, next year when he had earned enough money he might buy some new textbooks and return to school.

Indeed, George probably would have regained his enthusiasm for learning and returned to school the next year if it were not for the event he witnessed on the night of March 26, 1879. This event, coupled with his beating by the two white thugs, would change the direction of George's life.

## *Chapter 4*



# Permanently Etched into His Mind

**M**r. Hall needs this right away," George's new employer said, holding up the horse harness he had just repaired. "You know where he lives, don't you?"

George nodded. "Yes, sir. I'll take it straight there."

Two minutes later, George was strolling down the main street of Fort Scott, horse harness in hand. It was midafternoon, and as he walked past the county jail, he noticed a crowd beginning to gather. About twenty men and women were standing talking to one another in quiet voices.

The Hall farm was located three miles outside of town. George delivered the harness and then gave Mr. Hall some advice on how to care for his ailing oak tree. By the time he was ready to leave, long shadows stretched across the surrounding countryside. As George retraced his path back into Fort Scott, he noticed that an unusually large number of wagons passed him also heading into town. By the time he reached the edge of Fort Scott, George could hear the roar of a large crowd. As he got closer to the center of town, the noise of the crowd grew louder and louder. When he turned the corner by the dry goods store onto Main Street, he came face-to-face with a thronging mass of people. The crowd of about twenty people that had been gathering in front of the jail on his way out of town to the Hall farm had now grown to about a thousand. Instinctively, George ducked into a doorway. He stood rooted to the spot as he watched three

men in white masks drag a black man down the street. About twenty-five other men in white masks followed, and the rest of the crowd followed them. Everyone was chanting, “Lynch him, lynch him.”

The procession stopped abruptly about fifty yards farther down the street. As the crowd of white people worked itself into a frenzy, George watched helplessly as a rope was slung over a lamppost and the noose on the end was placed around the black man’s neck. As men in the crowd swung young children up onto their shoulders for a better view, George lost sight of the black man. He didn’t need to see, though, because he knew what was about to happen. A roar went up from the crowd, and George knew that the man had been hanged. However, the sight of the man’s lifeless body dangling at the end of the rope did not quiet the crowd. The crowd was now in such a frenzied state of hatred that a mere hanging was not going to be enough to satisfy its quest for blood.

“Roast him,” screamed a woman toward the front of the crowd. “He ain’t paid enough yet for what he did!”

The hairs on the back of George’s neck rose as he saw groups of men and women searching around for fuel for a bonfire. Some men grabbed a stack of crates that were only ten feet from where George crouched in the doorway. George pushed himself back until he could feel the doorknob digging into his shoulder. He held his breath and hoped that the men would not spot him. They did not. Busily they dragged the crates out into the middle of Main Street. Someone then stepped forward and doused the crates and other fuel for the fire in coal oil. The body of the black man was cut down from the lamppost and dragged over to the pile. As it was pulled along, people kicked and spat on it. Finally, it was unceremoniously dumped on top of the pile of wood.

Whoosh! George heard the fire roar to life. A cheer went up from the crowd, and in the flickering firelight, George caught sight of the triumphant look on the faces of the people. He wished at that moment that he could be anywhere else on earth, but he dared not move. The crowd was out for revenge, and George was as black as the man whose body now lay in the fire. Soon the smell of burning human flesh filled the air. As the stench flooded into his nostrils, George bent over and vomited.

It was at least an hour before the body of the man was burned enough and the crowd began to disperse. George watched as mothers gathered up their children and the men shook hands and congratulated one another before heading for home.

The moon was high in the sky before George felt it was safe to creep out

from his hiding place in the doorway and slip away. His hands shook uncontrollably as he bolted the door of his little wooden cabin. After he was satisfied that the door was locked securely, George sat on a rickety wooden chair and stared at the wall. He wanted desperately to forget what he had just witnessed, but he knew the image was permanently etched into his mind. He would always remember the cheering, the joy, and the excitement of the crowd as they killed and then burned a fellow human being.

Finally George lay down, but sleep would not come. He watched the door nervously for signs that someone was trying to open it. He even got up several times to check to see that it was still securely bolted. Despite his best efforts, he did not feel safe.

George knew that the black man who was lynched may well have done something very bad, but surely he deserved a trial before a judge and a chance to explain his actions. After all, didn't the Constitution declare that all men, both white and black, are to be presumed innocent until proven guilty? The mob had denied the black man this simple right. It had acted as his judge, jury, and executioner. And worse, in the crowd there had been good people, churchgoing people, people George knew, and not one of them had tried to stop the mob or challenge what the people were doing. But what bothered George the most was what if they discovered tomorrow that the man was not guilty? What if a white man had made up the story about the black man's being guilty just to cover his own crime? It would be too late; the man was already dead.

As the hours of the night ticked away, George knew he would never again feel safe in Fort Scott. What if the man had been he, George Carver, accused of something he did not do? Would anyone pay attention to him as he tried to explain? George felt sure the answer would be no, and he knew he had to get away. In the lamplight that illuminated his cabin, he gathered together his few belongings and tied them into a kerchief. He unbolted the door and slipped outside. The moon was full as he tiptoed past his employer's house and out the gate. As he did so, George was overcome with an urge to run. He broke into a near sprint as he headed out of town for an unknown destination.

After witnessing the lynching and burning, George found it difficult to settle in any one place. He was always nervous, wondering whether he was really safe. He traveled around Kansas, but he never lingered too long in any town. With his talents and determination to work hard, George was never without a job for long. In several places he set up a business washing people's laundry. In other places he did everything from driving a team of oxen to

cooking in a hotel. He even took a shorthand and typing class and worked in a telegraph office for a summer. Always, though, George looked for a way to continue his education. Despite his new timidity as a result of the events in Fort Scott, George made friends, both black and white, wherever he went. In Olathe, Kansas, he moved in with Lucy and George Seymour for a while. The Seymours reminded him of Mariah and Andy Watkins back in Neosho. They, too, were a childless black couple who were strong Christians. George attended the local Presbyterian church with them.

George liked to keep in touch with all the new friends he made along the way. He always took the time to write letters to these people. It was through this habit of writing letters that George acquired his middle name. While staying in Minneapolis, Kansas, he noticed that while he sent out many letters, he received few replies. When he asked the postmaster about this, the postmaster explained that there was another George Carver, a white man, in town, and he was probably getting most of George's mail, especially since no one expected a black man to get much mail.

"What can I do about it?" George asked.

"Well," the postmaster replied, scratching his head. "Why don't you use your second initial? That would make you different from the other George Carver."

George thought this was a great idea except for one thing—he didn't have a middle initial. So he chose one right there and then. He chose the initial W.

One day George wrote his new name, "George W. Carver" at the top of one of his school papers.

"What does the W stand for? Washington?" asked one of his friends.

"I suppose it could," George replied, warming to the idea. After all, Washington was an impressive middle name to have. From that time on, George, the ex-slave born on the Carver farm, was known to all as George Washington Carver.

One day in early 1883, George received a letter from Moses Carver that contained bad news. George's older brother Jim had died. According to the letter, Jim had contracted smallpox, and his body had been buried in Fayetteville, Arkansas, where he had been working as a farmhand. George remained in a daze for many days after receiving the letter. All the people he knew had family around them—aunts, uncles, brothers, sisters, cousins—but now George did not know of a single person on earth he was related to by birth. Although he had not seen Jim in several years, there had been something comforting in knowing he

was there. For the first time in his life, George felt totally alone.

During the many lonely times that followed his learning of Jim's death, George sought comfort in reading his Bible or playing the piano accordion out under a tree. He still loved nature as much as ever and began getting up before dawn each morning to go walking in the surrounding fields and woods.

Even though it seemed like it was taking forever, George was actually getting close to his goal of graduating from high school and going on to college. He had figured out back in Fort Scott that the kind of questions he had bouncing around in his head could not be answered in the tiny one-room black schools he attended. As well, many of his teachers had told him that if he managed to graduate from high school he should go on to college.

Finally in late 1883, George graduated from high school. He was nineteen years old and six feet tall. It was now time for him to think about enrolling in college. George had set his sights on attending Highland College, a Presbyterian school in Highland, Kansas. The college was small, with an enrollment of about one hundred students. George thought it would suit his needs well, providing he could gain admission.

Night after night George pored over the college application form. He filled in all the answers in pencil first, then checked and double-checked them to make sure he had not made any mistakes. When he was entirely satisfied, he rewrote the answers in pen, put the form in an envelope, and mailed it off. He then waited anxiously for a reply.

Eventually a letter from the admissions department at the college arrived. George was almost too scared to open it. What if it said no? What would he do then? Thankfully, the letter contained good news. George had been accepted into the school for the 1884 class. Unable to control his emotions at the news, he let out a holler of sheer joy. His mind also began to whirl with plans. He had built up a small laundry business that he would need to sell to have the money to buy books and pay his college fees. And before he headed to college, he wanted to go and see Jim's grave and visit Moses and Susan Carver.

The intervening months sped by. By the time August arrived, George had all the money he needed to pay for a year at college. He even had enough money to buy himself a new pair of boots and a shirt. Soon George boarded a train for the trip to Fayetteville, Arkansas, to see Jim's grave. From there he headed northward to Diamond, Missouri.

The Carver farm had hardly changed a bit since George had left. Two of Moses Carver's grand nephews had come to help him on the farm, which still

ran with a certain German efficiency. George was very glad to see Uncle Moses and Aunt Susan again. They spent many hours together happily talking as they labored to harvest the corn crop.

Moses and Susan were delighted with George's progress and proud of the fact that he had been single-minded enough to get through high school and be accepted into college. During the visit, Uncle Moses repeated his earlier advice to George. "Someone can always take your money or belongings from you, but no one can ever steal your education."

George agreed heartily with this sentiment as he boarded the train bound for Highland, Kansas. No one could take an education away from a man, and George was well on his way to getting his education.

When he arrived at Highland, George walked to the college. It wasn't hard to find; it was the largest building in town. He bounded up the stairs of the main building and pulled open the double doors at the top. He took a deep breath and stepped inside a college for the first time.

An elderly woman with a bun in her hair looked George over suspiciously as he entered the room. "What do you want, boy?" she finally asked in a snooty voice.

For a moment George's mind went blank. Then he remembered the acceptance letter in his shirt pocket. "I've come to enroll, ma'am," he stammered. "Here, I have the letter. My name is George Washington Carver."

The woman's eyebrows raised. She took the letter from George. "Wait here," she said matter-of-factly.

As George waited patiently, two other students came in to enroll and were quickly taken care of and shown to their dorm rooms. Finally, George heard a door open at the end of the corridor and the scratch of shoes on the polished wooden floor. Slowly George turned to see a tall, red-faced man walking toward him. He guessed the man was the principal, and he stood and thrust out his hand to greet the man. The principal, though, did not shake his hand. Instead he looked coldly at George.

Undeterred, George introduced himself. "George Carver, sir," he said. "I've come to enroll."

"Ha," the principal spat back. "You did not tell me you were a Negro. This college does not accept Negroes."

George stood speechless. Part of him wanted to argue the point, but he noted the sense of finality in the principal's voice. Instead, he decided not to make a fuss about the unfairness of the situation. Doing so could lead to trouble,

and George knew full well where trouble with white people could lead. Instead, George picked up his carpetbag and silently walked out the door of Highland College. His shoulders slumped as he thought about what had just happened to him. Moses Carver had been wrong: Someone had stolen his education.

Tears blurred George's vision as he walked down the tree-lined driveway of the college. Now he would have to find work and somewhere to live. Of course, he had entered strange towns before needing to find shelter and a job, but this time things were different. In the past when he had done this, he had always been inching toward his goal of graduating from high school and going on to college. Now that dream was shattered. George had nothing to look forward to, nothing to aim for. He tried to look into the future, but for the first time in his life, the future seemed blank.

## *Chapter 5*



# That Stubborn Dream

**G**eorge Carver walked until he came to a church where he heard singing inside. He stood at the door of the church and listened, hoping the music would cheer his spirit. When the service was over, several of the women noticed him still standing outside. They soon gathered around George and asked him where he was from and what he was doing in Highland. George was too depressed to hide the truth, and he soon found himself telling his story to these white women. Most of them became angry that the college would treat someone this way, and they promised George they would find work for him.

One of the women, Mrs. Beeler, was the wife of a wealthy orchardist. She offered to pay George to help at a party she was holding, and within a couple of days she asked him if he would become her full-time helper. George liked the Beelers very much, and he was glad to have something to do while he tried to take his mind off his lost opportunity to attend college. It was depressing for him to think about it. He was twenty years old and right back where he had started. Back at the Carver farm, George had spent most of his time helping Susan Carver take care of the housework. He had left the farm to get an education. But now here he was, doing housework again, his dream of an education not fully realized. It was almost more than he could bear.

After a year, George knew something had to change. Unless he made a

move soon he would end up spending the rest of his life working in the homes of white people doing laundry and cooking. He had no desire to try getting into another college. He didn't think he could stand to have his hopes dashed again. He decided he would have to look for something different to do, something he could succeed at no matter what color his skin was.

The Beelers themselves supplied the answer George was looking for. One day in the spring of 1886, George and Mrs. Beeler were tending the herb garden together.

"You know, George, you're so good with plants," Mrs. Beeler said, trimming the rosemary bush. "Why don't you head west like our son Fred. You know how well he's doing."

George didn't respond right away. He kept weeding and thinking about Mrs. Beeler's suggestion. It was true, Fred Beeler had done well for himself. The little settlement where he lived was even named Beeler after him. George also knew of several black families who had taken advantage of the Homestead Act of 1862. This act allowed for a settler on the western plains of Kansas to file a claim for 160 acres of land. If the settler worked the land for five years, he could then own it for the twenty-four-dollar filing fee.

"You could even take the train out there. The tracks have been laid all around the area now," Mrs. Beeler said, breaking into George's thoughts.

George put down his trowel. "You've given me something to think about, Mrs. Beeler," he said. "There is a lot a man could do out west."

George did think about it over the next few days. The more he thought about it, the more he liked the idea. Going west and filing a claim for land would give him a chance to be his own man, to prove himself.

In July 1886, two years after he had arrived with high hopes of getting a college education, George Carver left Highland bound for Beeler in Ness County, Kansas. His spirits began to dwindle a little as he looked out the train window and watched the rolling hills of eastern Kansas give way to an endless, flat prairie. Dotted sparsely across the landscape were sod houses surrounded by patches of corn and wheat. There were also large herds of antelope and flocks of migrating geese.

Finally the train hissed to a stop, and the conductor announced they were in Beeler. The station was a tiny shack next to the rails with a bench in front of it. Cautiously, George climbed down from the train, lugging with him an accordion, a typewriter, and his books. He was hardly equipped to "tame" the prairie.

As usual, George used his imagination and hard work to find a way to get

started in his new endeavor. At the general store he asked about finding work and was introduced to a man named George Steeley, who owned a successful stock farm to the south of the tiny settlement. Mr. Steeley was looking for someone to help him build a barn and henhouse. George eagerly took the job, hoping it would have rewards beyond the wages he would earn. Observing what Mr. Steeley had done to break in his land would help George know what to do with his land when he finally got it.

George Steeley's mother was paying him an extended visit at the time, and George could tell right away she was not pleased that her son had brought a black man home with him. Her nose went up in the air as she instructed George Carver that he could use the lean-to at the back of the house for his sleeping quarters. He could eat there too, she told him, since it would not be acceptable for him to eat with white folks.

George had experienced this type of treatment many times before, and he tried not to let it bother him. Instead, he concentrated on his new goal of learning everything he could about farming the prairie and then staking his own land claim.

It wasn't long before Mrs. Steeley decided it was time for her to return home. Now George Carver and his employer could get to know each other better. They ate their meals together, and George moved into the house.

George Steeley was eager to have a larger barn built to shelter his animals before the bitter Kansas winter set in. He had already built his own house with the help of some neighbors, and he was eager to show George how structures out on the prairie were built.

Building the barn proved to be a long, exacting job. There were few trees on the prairie, and it was far too expensive to haul in timber for anything other than window and doorframes and the rafters. As a result, nearly all of the buildings around Beeler were constructed of sod—dirt with grass growing on top of it. George Steeley explained to George that the best sod was found in low-lying areas that got more water than the surrounding land, which in turn made the grass grow thicker. Once the two men had located a promising patch of sod, they harnessed two draft horses and began plowing the virgin prairie in one direction with furrows one foot apart. They then crisscrossed the land in the other direction with furrows two feet apart, making a large checkerboard pattern on the ground. The hard part then began. Using shovels, George and Mr. Steeley began prying the rectangular pieces of sod from the ground. They stacked the pieces of sod, which were four inches thick, at the edge of the field. They could

work only in the early morning and just before sunset because it was too exhausting to be out in the hot noonday sun. Sunstroke and dehydration could easily kill a careless farmer. At the end of the first day, the men had accumulated a small pile of sod "bricks," and George had a sore back.

Once they had gathered enough sod bricks, their next step was to transport them to the site of the new barn and begin stacking them on top of each other until they formed ten-foot-high walls. They then set rafters on top of the walls and covered them with tar paper. Sod was then layered on top of the tar paper to form the roof. The barn had no windows, and just a single door at the front. All in all, the two men were pleased with their effort.

Of course, now that George knew what to do, he was eager to find some land and build a place of his own. He had eyed the property next door to the Steeley farm. As yet no one had claimed the land, probably because it had no spring on it, and no one could farm on the prairie without water. Still, George was confident that if the land was his, in time he could drill a working well on it. Until that time, George Steeley told George that he could haul water from his spring three quarters of a mile away. So George Carver filed a claim for the land, and in August 1886, he had his own piece of untamed prairie, provided he would stay on it for five years.

George continued to live with and work for George Steeley; he worked on his own sod house on his day off. Mr. Steeley generously loaned George his horses and plow, and slowly the first and only house George Carver would ever own took shape. George had to stop construction for the winter. He had arrived in western Kansas in the one-hundred-degree heat of summer, when hot winds blew across the prairie and whipped up dust. Throughout the heat of summer, George had looked forward to cooler weather. Now, though, he was surprised at how cold it had become. The hot wind that had blown across the prairie had now given way to a biting arctic wind that whistled around the sod house.

George also came to understand why his neighbors feared winter blizzards so much. He was out herding the last of George Steeley's stock into the barn when a howling snowstorm blew in. George pulled his jacket tight around him and braced himself against the wind as he made a dash for the warmth and safety of the farmhouse. However, he found it was almost impossible to stand up against the wind, which buffeted him with every step he took. And even though he was only a few yards from the house, the snow was blowing so hard that he could not see the house or the barn—or the ground, for that matter. He was completely engulfed in whiteness. His heart began to race. He had heard stories

of men being caught in blizzards on the prairie and freezing to death not knowing they were just feet from their own doorstep.

Fighting the feeling of panic he felt rising within, George forced himself forward. His energy quickly draining away in the bitter cold, he stretched out his arms in front of him and felt something hard. As he ran his hands over it, he realized it was the side of the house. Frantically, George felt his way along the wall until he came to the doorway. He swung the door open and tumbled inside into the welcoming heat. From that time on, George had a healthy respect for Kansas winters.

The following spring, George finished his sod house and moved in. By now he had bought several essential items from the neighbors, including a woodstove, a bed, table and chairs, and a cupboard. He also bought ten hens. And while he worked hard breaking in his land, George was very happy. He borrowed George Steeley's horses and plow and plowed sixteen acres of land. On it he planted corn and a new breed of wheat, "Turkey Red," which Russian immigrants had brought with them. Neighbors said it needed less water than most wheat, and George was eager to see how it would grow on his farm.

George still went walking each morning, leaving before dawn. And although it was a very different landscape from anything he had known before, he soon found things that fascinated him. He would scour his land looking for Indian arrowheads and unusual rocks and plants. And just as he had when he was a boy, George soon ran out of places in the house to keep all the objects he found. He built a lean-to onto the house for his newfound treasures. Once a week he went into town to the Ness County Literary Society, where plays were performed, musical numbers were played, and debates were held. George was in high demand at these gatherings for his accordion playing. The song that people asked him to play the most was "Home on the Range," a song written by a fellow homesteader about life on the Kansas prairie. George was also voted assistant editor for the society's newsletter.

George loved to paint, too, and still made most of his own paints from various types of soil and plants. It was his painting that first brought him in contact with Miss Clara Duncan, a black woman who had been an art teacher at Talladega College, one of the first black colleges in Alabama. Miss Duncan had taken up a land claim in Kansas herself, and she told George she was glad to find someone else with a love of art in such an improbable place.

Clara Duncan arranged to give George art lessons, and George happily painted a rabbit and a pink flower for her. Clara was very impressed and asked

George why he had not gone on to college. At first George was reluctant to tell her, but eventually the story of his rejection at Highland College came tumbling out. Clara began a campaign to get George into college. She told him he did not belong on the prairie, that in the end he would get bored with the pioneer life, and that his future lay in education. In his heart, George knew this. He had always known it, yet he had tried to tell himself that his dream of a college education had died in Highland. Now, slowly, and with the encouragement of Clara Duncan, that stubborn dream was beginning to grow again. In June 1888, two years after arriving in Beeler, George Carver relinquished his land claim and headed north. He was sorry to leave so many new friends behind, but he knew it was time to look for a way to finally get himself into college.

## *Chapter 6*



# On to Iowa

**T**he signpost at the edge of town read, “Welcome to Winterset, Iowa.”

George Carver put down his bag and wiped beads of sweat from his brow. Winterset did not look like the kind of place he had been searching for, the kind of town where he could start a small greenhouse business to earn money to further his education. Still, by now the afternoon shadows were long on the ground, and Winterset seemed like a good place to find somewhere to stay for the night. George wandered along the dusty main street, admiring the roses growing in pots outside the drugstore as he went. A huge walnut tree grew in a front yard, and George stopped to look at it. Finally, he spotted the St. Nicholas Hotel, a two-story clapboard structure at the far end of the main street. Once he had walked to the end of the street, George looked at the building and decided it would cost more money than he cared to spend for a night’s lodging. He decided to walk on through town and see if there was somewhere else he could stay. As he was about to walk away, a sign in the hotel window got George’s attention. “Cook wanted immediately. Must have experience and be able to work with minimal supervision. Apply within,” the sign read.

For some reason George stopped and thought about the sign. It had been a month since he had left Beeler and headed northeast across Kansas before finally making his way into the lush countryside of Iowa. Along the way he had washed

a few clothes for folks and done some odd jobs to earn money, but he hadn't settled. As he stared at the sign, he wondered whether his idea of starting a greenhouse could wait a little longer. Maybe he could work as a cook while he saved the money needed to get his greenhouse started.

George turned the polished brass knob on the front door of the St. Nicholas Hotel and stepped inside. Half an hour later, he had a job and a place to live. Mr. Shultz, owner of the hotel, explained to George that his son had been the cook but had gone off to join a musical troupe. If his son returned, the owner warned, George would be out of a job.

That was fine with George. He didn't know how long he wanted to stay in Winterset anyway. But while there, he decided to work as hard as he could to get the kitchen running smoothly. More than anything else, George hated to see things go to waste. He set about devising ways to use the leftover food that in the past had been thrown out. George soon became very popular. Not only did the food taste better than before, but also George cut the food budget in half, which made Mr. Shultz very happy.

On Sundays, George attended the Winterset Methodist Church, where members of the congregation learned to accept and appreciate the quiet, hardworking young man newly arrived among them. Mrs. Milholland, wife of the local doctor and church choir director, took particular notice of George. The first Sunday George went to church, Mrs. Milholland heard his high tenor voice above the rest of the congregation and invited him to visit her and her husband.

George was delighted to be making new friends, but it was not until he arrived at the Milhollands' house that he realized just how much he and Mrs. Milholland had in common. Both loved music; George played the piano accordion and Mrs. Milholland the piano. Both of them were amateur artists. Best of all, though, Mrs. Milholland loved gardening so much that she had her own greenhouse. The two of them had a lot to talk about, and it was soon decided that Mrs. Milholland would give George piano lessons in exchange for his giving her tips on how to paint flowers, since he was a much better artist than she was. Dr. Milholland also liked George and offered to loan him any book he wanted from his extensive library.

Before long, the Milhollands and George were great friends. George had a standing invitation to eat Sunday lunch at their house whenever he wanted. Mrs. Milholland even insisted that George spend Christmas with the family. George made everyone laugh when he showed up dressed as the tallest, skinniest, darkest Santa Claus anyone could recall seeing.

The more the Milhollands got to know George, the more they, like Clara Duncan back in Beeler, began to press him about college. They chided George, telling him he had too many talents to be spending his time as a cook in a hotel. Of course George wanted to go to college, but he simply did not have the money to do so.

One day, not too long after the Milhollands began pressing George about college, Mr. Shultz's son returned home. George's tenure as cook at the St. Nicholas Hotel came to an abrupt end. Once again George found himself without a job. However, he had grown to like Winterset, and the Milhollands in particular, so he decided to stay. He rented a tiny cabin on the edge of town and set up yet another laundry business. This infuriated Mrs. Milholland, who thought his talents were wasted even more doing other people's laundry than they had been cooking at the hotel. She redoubled her efforts to get George into college.

Simpson College, located about twenty miles east in the town of Indianola, was the particular place she had in mind for George. Simpson was a Methodist college and declared in its literature that it was willing to accept any qualified student, regardless of race. Mrs. Milholland made some inquiries and found out that sure enough, the college did accept students from all races. One black student had already graduated, and three Chinese students were currently enrolled. Finally, Mrs. Milholland brought all the information she had gathered to George's attention, and George eventually found the confidence he needed to send in an application.

Happily, George was accepted into Simpson College. This time he was certain that when he arrived at the school he would not face the humiliation that had awaited him in Highland, where he was denied entry into the college because of the color of his skin.

Once again it was time for George to be moving on. He sold his laundry business, packed his few belongings, said good-bye to the Milhollands, and set out walking early in the morning on September 8, 1890. By nightfall he had arrived in Indianola.

The following morning George had an interview with the Reverend Mr. Edmund Holmes, president of Simpson College. This time there were no shocked or embarrassed looks from the college staff. The conversation with Mr. Holmes was not about the color of George's skin but about what courses George should take while at the college. Mr. Holmes approved of all but one of George's course choices. Grammar, essay writing, word origins, voice, piano, and

arithmetic were all fine, but Edmund Holmes drew the line at George's request to take art classes. He simply could not understand why a twenty-six-year-old black man thought there was any point in studying art. In Mr. Holmes' opinion, art was not a practical option. He could not think of a single black person who made a living as an artist.

Normally, George would not have argued with the decision, but this time he was determined to choose his own course of study. Eventually he was able to persuade Mr. Holmes to allow him to take art classes for two weeks and then let the teacher decide whether he had enough talent to continue.

Once this issue had been settled, there was another delicate issue to face—where George should live. The female students at Simpson College lived in dormitories, while the men were boarded in homes throughout the town. They were white homes, however, and Mr. Holmes doubted that any of them would welcome a black student. Instead, he offered George the use of a run-down shack at the back of the college campus. This arrangement suited George fine. All his life he had made the most of whatever was offered to him.

Later that day when he finally saw the shack, George realized he needed cleaning supplies. The place had not been lived in for years. Spider webs and signs of vermin were everywhere. George set his belongings down on the dusty floor and headed for the hardware store in town. He purchased soap to clean his new house and two washtubs, a washboard, and some starch so that he could set up a small laundry business to earn a little extra money. He also bought five cents' worth of cornmeal and five cents' worth of beef fat for dinner. The manager of the hardware store also agreed to keep several wooden packing crates for George to use as furniture.

It was a small beginning, but George was not discouraged. He was finally at college and was determined to make things work out one way or another.

The first few weeks at Simpson College were difficult for George. Art class caused him to break into a sweat. He wanted to be allowed to stay on in the class so much that his hands shook when he tried to draw. After the first two weeks were over, Miss Etta Budd, his art teacher, declared that George showed promise as an artist and recommended he be allowed to stay on in the class. George was delighted and relieved. Art class quickly became his favorite class.

Slowly word got around to the other students that George was an excellent launderer, and they began bringing their laundry to his little shack at the back of the school. Despite the shack's outward appearance, George always kept the place spotless. As he washed their clothes, students would sit and chat with him.

And as they talked, students began to appreciate how smart and well-read George was. It wasn't long before he was one of the most popular people on campus. George's popularity, however, served to heighten the embarrassment students and faculty felt about the living quarters the college had provided for one of their brightest students.

One day George returned from grammar class to discover that someone had been in his shack and had left behind a sturdy table and chairs and a bed complete with sheets and warm blankets. George was astonished. He asked many questions in the hope of finding out who had mysteriously placed the items in his room, but no one owned up. Whoever it was had probably observed George closely enough to know that if George knew who had left the items he would have refused to accept them. George always refused to accept things for free, but this time he did not know who to return the items to. He had no choice but to keep them. Throughout the year other gifts arrived at his shack. Most, such as a concert ticket or a dollar bill, were slipped under his door anonymously.

As time went on, George found himself doing less laundry because he was now tutoring. Several women in town had hired him to help them with their painting and drawing. One of these women, Mrs. Liston, became a close friend. She reminded George of Mrs. Milholland back in Winterset. George was always welcome at the Liston home. Indeed, Mrs. Liston insisted on unofficially "adopting" George. Whenever she sent him a note she would sign it, "Your Mother."

George had never been as happy as he was attending Simpson College. There were new things to learn each day, and he could paint and draw as much as he liked. Fall came, and then winter. George was so busy studying he scarcely noticed the biting cold that seeped in through the walls of his shack. One day, as winter was drawing to a close and George had begun to notice the first murmuring of spring, Miss Budd asked him to stay behind after class. Her hands twitched nervously, and George wondered what he had done wrong.

"George," Etta Budd began, clearing her throat several times, "I have been wondering if you are in the right course here studying art."

That was something George hadn't been expecting. Miss Budd always complimented him on his botanical paintings, and he knew he was at least as good as the other students in the class. "But I love painting," he finally replied.

"I know you have the ability to become a good painter, but I can't help wondering where that will get you in the end. It's hard for anyone to make a

living painting, and especially hard for someone like you."

George nodded. He knew Miss Budd was referring to the color of his skin.

"I have noticed how much you love to be outside in nature," she continued. "I was wondering if you might consider continuing your education in that area instead of pursuing art. If you got a degree in horticulture, I'm sure many opportunities would open up for you."

For a minute George did not know how to reply. What was Miss Budd saying to him? Was she telling him he did not belong at Simpson College after all? Did she want him to look for another university to attend?"

"Just think about it, that's all I ask," Miss Budd said, interrupting George's thoughts. "My father is professor of horticulture at Iowa State College, and I know he would love to have you in his classes."

"Thank you," George finally managed. "I will think about it."

That is exactly what George did. In fact, he could think of little else for days. Was he being unrealistic imagining he could become a painter? Was he being selfish wanting a career as an artist when he could help poor black farmers work their land more efficiently if he studied horticulture? Could he bear leaving such a wonderful place as Simpson College where he had so many friends? Would he ever be happy again without a paintbrush in his hand? George didn't know what to do, but after a long struggle he decided he would keep painting as a hobby and pursue a career in horticulture.

When he announced his decision to Miss Budd, she was very pleased. She made arrangements for George to transfer to Iowa State College, about fifty miles north in Ames.

It was not easy for George to say good-bye to all the new friends he had made, especially the students in his painting class. And even as he left Simpson College for Ames, he wondered whether he was making the right choice. He wondered even more when he arrived at Iowa State. It was not the friendly place Simpson had been. George was the only black student enrolled, and no one seemed to know what to do with him. First there was nowhere for him to stay until an old storeroom was cleared out. Then, the dining room manager insisted that George eat with the black servants in the basement. On his first day of class, no one would sit beside George, and many of the other students jeered at him as he walked across the campus.

George could do nothing except endure this treatment and pray that his situation would get easier for him as time went on. He wrote a letter to Mrs. Liston telling her about his problems. George hoped to get an encouraging letter

back from her. He got much more than that. As soon as Mrs. Liston received George's letter, she got on a train and headed for Ames!

George was very surprised when he spotted Mrs. Liston striding across the quadrangle looking for him. He ran to greet her. It felt good to be in the company of a friend. Mrs. Liston asked George to show her all over the campus. She slipped her arm through George's and listened attentively as he led her around and explained about the experiments that were being done in the greenhouse. Everywhere George and Mrs. Liston went students stared at them and whispered to one another. George assumed Mrs. Liston would want to eat dinner with the white staff and students, but she insisted on eating in the basement with George and the black workers.

It was not long before one of the faculty members came downstairs to see where Mrs. Liston was.

"Ma'am, surely you would be happier eating upstairs with the rest of us," he stammered.

George heard Mrs. Liston draw in a deep breath. "My good sir," she replied, "George Carver was one of the best students at Simpson College before he came here. My husband and I consider him like a son. Wherever you decide he should eat is good enough for me!"

The faculty member was too stunned to say anything more as he retreated from the basement. George was not sure what would happen next. Would Mrs. Liston's behavior help him make friends with the other students, or would it make life worse for him?

The next morning he had his answer. For the first time since George had arrived at Iowa State Collage, his laboratory partner spoke to him. And when it was lunchtime, the student with the locker next to George's invited him to come to lunch in the main dining room. The manager who had insisted that George eat in the basement nodded and smiled slightly when he saw George come in. Everything went smoothly, and George was grateful that Mrs. Liston's visit had broken the ice for him. Now it was up to him to prove he could handle life and work at Iowa State College.

## *Chapter 7*



# Just Another Student

**M**r. Carver, my father says it's fine for me to come with you tomorrow morning. Can you come by the house and get me?"

George looked down into the hopeful eyes of Henry, the six-year-old son of his agricultural professor, Dr. Henry Wallace. He smiled at the boy. "Of course. It will be wonderful to have you along," he said. "Don't forget to wear a scarf to keep your neck warm, and bring a bag to put specimens in."

The boy nodded seriously at George. "Yes, sir," he replied. "My father gave me an old bag. I can hardly wait until tomorrow!"

George ruffled Henry's hair. "You go on home now. I have to mop the floor."

Henry skipped off down the corridor while George turned and hummed softly to himself as he swished the mop rhythmically across the floor. He worked part-time as janitor at the college to help pay for his education.

Henry Wallace, who would accompany George on his walk in the countryside the following morning, was one of the many new friends George had made in the month since his arrival in Ames. After Mrs. Liston's visit, no more nasty words had been spoken to George. Slowly the faculty and students had begun to get to know him. As a result, George had more social obligations than he could fit into his schedule. He was nominated to join the Welsh Eclectic

Society, a group that explored many areas of interest, including plays and public speaking. He also joined the German club and the debating club. And then there were the National Guard and the YMCA. Not only that, but George had offered to do leg massages for two members of the football team. Word soon got around that he had a knack for coaxing cramped and tired muscles back to normal. As a result, the football coach created a new job for George: team masseur. George even got paid for his services.

George also struck up close friendships with two of his professors, James Wilson, Dean of Agriculture, and Henry Wallace, Sr.

James Wilson had served in the U.S. Congress before returning to Iowa to take up a teaching position in an attempt to improve the lot of American farmers. The dean was also a Bible scholar, and he and George held regular Bible studies together.

When Dean Wilson discovered that George loved to paint and viewed some of his paintings, he urged George to study art. He told him it was a crime to allow such talent to go to waste. It reminded George of his conversation with Miss Budd, except she had been urging him to give up painting in favor of studying agriculture. Now Dean Wilson was suggesting just the opposite! George managed to convince the dean that he could do more good teaching people better farming techniques than by being a painter. Dean Wilson never again suggested that George study art.

Professor Wallace was particularly interested in soil, and he instilled this interest in George. He taught about the importance of healthy, fertile soil, not only for farmers but also for the entire country. One of Professor Wallace's favorite sayings was "Nations last only as long as their topsoil lasts." It was a saying George remembered for the rest of his life. Without topsoil there could be no prosperity for farmers or anyone else in the country. George set about learning all he could on how to keep soil fertile.

Analyzing soil was a new area of science that had been pioneered in Germany fifty years before by Baron Justus von Liebig. Von Liebig had developed a way to analyze soil to discover the levels of potash, sulfur, phosphorus, lime, and soda it contained. He also demonstrated how plants remove these substances from the soil, which in turn makes the soil "weak." Justus von Liebig even developed some artificial fertilizers designed to put these elements back into the soil and make it fertile again. American scientists were slow to grasp how von Liebig's breakthroughs could help farmers produce better crops. Indeed, agriculture had not been considered a real science in America

until after the Civil War. It was then that the government established the U.S. Department of Agriculture. Congress also passed legislation that set up experimental stations to research farming issues. Iowa State College led the nation in combining farming and science.

Another area George was interested in was crossbreeding plants to produce new varieties that were stronger or bore more fruit or were resistant to drought and disease. George had been trying to “mix” plants this way from the time he started collecting them in the patch in the woods on the Carver farm. Now he was learning how to expertly hybridize plants. Gregor Mendel, who was both a monk and a scientist, had developed this new branch of science in Austria. Mendel, who had died seven years before George arrived at Iowa State College, had experimented by mixing different varieties of peas in the monastery garden. This approach produced some stunning results. Mendel summarized his research in a paper in 1865 entitled “Experiments with Plant Hybrids.” It had taken fifteen years for the results of his work to filter around the world, but by 1892 the work was studied in a number of universities, including Iowa State College.

George could appreciate a busy priest like Mendel puttering around in the garden in his spare time, trying one technique after another until he met with success. It was the kind of experimenting George had himself been attempting for years with his own plants.

Before George knew it, Christmas had rolled around, and he took a train to Indianola, where he spent a happy week with the Listons. While there, he also enrolled in Etta Budd’s winter vacation painting class, where he contentedly painted pictures of cacti and other plants he recalled from his days of wandering around western Kansas. But sooner than he would have liked, it was time for George to return to Iowa State College for the start of the second semester.

George completed his first year, getting grades of 3.9 and 4.0 in botany and horticulture and a respectable 3.0 in the subjects he liked the least, mathematics and history.

Many of George’s friends were impressed by the paintings he had produced over the Christmas recess, and they urged him to enter them in the Iowa State Art Exhibition that was to be held one hundred ten miles away in Cedar Rapids. George simply told them it was a dream he did not have the money to indulge. Little did he know that his fellow students would take matters into their own hands.

George had just finished watering his potted plants when there was a knock at his door. He opened the door, and five of his classmates stood grinning

outside.

"Come with us," said a student from his botany class. "We have something you need to see."

"What?" George asked.

"Oh, you'll like it, but we can't tell you what it is yet. Just come with us."

With that the young men surged inside George's cluttered room and grabbed him by the arms. They almost lifted him off the floor as they "escorted" him down the hall, out the front door, and along the road that led into town. George had absolutely no idea where he was going, but the other students laughed and joked as they carried him along, and he felt sure he was safe.

The young men passed the vegetable market and haberdashery and ended up in front of a tailor's shop. They stopped and went inside. George stood quietly, wondering what would happen next. He felt self-conscious as he looked around at the fine woolen suits neatly displayed on hangers. He was wearing a pair of threadbare trousers and a shirt he had made for himself.

"Ah, here is the young man," said the tailor as the group entered his store. He picked up his measuring tape and walked toward George. "Raise your arms, please," he directed.

It was at that moment that George realized he was being measured for a new suit. "But I don't have the money," he sputtered.

His fellow botany student laughed. "You don't need money, George. It's all been taken care of."

George stood still as he was measured, trying to take in the student's words. It would be the first professionally made suit he had ever owned. He wondered why the students had decided he needed a new suit now.

When the tailor had finished measuring, one of the other students handed George an envelope. On the front of it was written, "To Mr. George Carver, from J. Wilson."

George opened the envelope cautiously. Inside he found a round-trip train ticket to Cedar Rapids. He was on his way to the Iowa State Art Exhibition, complete with a new suit!

"I can't let you do this," George stammered, overcome with the kindness and generosity of the students around him.

"Try to stop us!" quipped one of the students.

George's new suit was dark gray with three buttons down the front of the jacket. It fit perfectly, and he wore it proudly to Cedar Rapids, where four of his best paintings had been entered in the Iowa State Art Exhibition. The four

paintings were titled “Yucca,” “Roses,” “Vase of Flowers,” and “Peonies.” All four paintings were nominated to be shown at the World’s Colombian Exposition in Chicago early the following year. Although George did not go to this exhibition himself, his painting “Yucca” won an honorable mention.

George was very proud of his accomplishment, but he kept on studying plants and farming techniques in the hope that one day all that he was learning would allow him to help poor farmers around the country.

During 1893, George received the bad news that Aunt Susan Carver had died. George was deeply saddened by this and mourned her passing. Susan Carver had taught him so many of the practical skills he possessed. And while not George’s birth mother, she had been the only mother he had known. He immediately wrote a letter to Uncle Moses to comfort him in his grief.

College life continued, and George’s popularity continued to grow. George was elected as one of the delegates to represent Iowa State College at the National Students Summer School in Wisconsin. At first some of the delegates at this gathering from Southern states did not think they should have to mix with a black student. One young man named Willis Weatherford was particularly rude to George. George, though, just went quietly about his business.

As usual, George had brought with him the hinged-top can with an attached shoulder strap that he kept his specimens in. Each morning before dawn he headed out into the surrounding countryside to collect specimens. It wasn’t long before a number of the other students at the summer school were going with him. They listened attentively as George pointed out to them ancient landforms and tiny bugs. By the end of the event, all but the most prejudiced Southerners, such as Willis Weatherford, were willing to listen to George share with them his amazing knowledge of nature. George didn’t know it then, but his and Willis Weatherford’s paths were destined to cross again in the future.

Time in Ames seemed to fly by for George, and in the spring of 1894 he was ready to graduate with a bachelor of science degree. He was the first black man ever to graduate from Iowa State College. By now his fellow students scarcely noticed his color. To them George was just another student, and they accepted him as such.

Graduation day was one of the highlights of George Carver’s life, not to mention a great opportunity to display his many talents. It seemed that George had a hand in almost everything to do with the ceremony and dinner afterward. He oversaw the decoration of the hall, where intertwined vines and flowers decked the walls. As the class poet laureate, he composed and read the

graduation poem.

Mrs. Liston arrived just in time to see George receive his degree. She brought him a huge bunch of red carnations, a gift from the art class at Simpson College.

Once graduation was over, everyone wanted to know what George would do next. For the first time in his life he had many options, perhaps more than any other black person in America. And all of the options appealed to George. He could study at the Boston Conservatory of Music, where he had been offered a scholarship. He could pursue a military career, since he had risen to become a captain of the National Guard, the highest rank possible for a student. He also considered taking a course at the Chicago Academy of Arts. But the more George thought about his options, the more convinced he became that he should concentrate on agriculture.

Soon after graduation, George was offered a teaching position as Assistant Station Botanist at Iowa State College. He eagerly accepted the position, which enabled him to study for his master's degree while he taught.

During his time at Ames, word had spread around the state about George's remarkable ability with plants. The president of the Horticultural Society of Iowa asked George to work during his vacations at crossbreeding various fruits, including apples, plums, pears, and peaches. For the first time since George had begun his quest for an education back in Neosho, Missouri, he did not have to do laundry or cook or scrub floors to financially sustain himself. He was able to do what he loved all day and every day.

Dr. Louis Pammell, head of the botany department at Iowa State College, was George's new boss. Dr. Pammell loved to do research, and he had written a book entitled *Manual of Poisonous Plants*. The book was highly regarded, so George was pleased when Dr. Pammell invited him to help with two new book projects. Together they produced *Treatment of Currants and Cherries to Prevent Spot Disease and Fungus Diseases of Plants at Ames, Iowa*. Neither title sounded earth-shattering, but to the local farmers whose cherry trees had spot disease or fungal growth, the information the books contained was the difference between having crops to sell and not.

During the course of writing these two books, George developed a deep interest in mycology, the study of fungi such as mushrooms, toadstools, molds, and mildews. George expanded his collection of mushrooms and other fungi until he had found and identified over 20,000 different varieties. Soon no one in the United States except Dr. Pammell knew more about mycology than George

W. Carver.

George worked hard at Iowa State College and received his master's degree in record time, graduating in October 1896. Graduation brought to a close his time in Ames, Iowa. A new chapter in George's life was about to open.

## *Chapter 8*



# Tuskegee

George Carver sat quietly, the letter in his hands. His body was still, but his mind was reeling at what it contained. He unfolded the page once more and read again. It was true! Booker T. Washington wanted to know if George was interested in the position of head of the new agricultural department being established at Tuskegee Normal and Industrial Institute in Macon County, Alabama.

Although George had already turned down other attempts to recruit him, he was drawn to this offer. He tried to remember everything he had ever heard about Tuskegee Institute. It was an all-black school, set up about fifteen years before by Booker T. Washington to train and equip ex-slaves so they could earn a living working at a trade. Washington himself had burst into the national spotlight the year before, 1895, when he delivered a speech at the opening of the Atlanta Cotton States and International Exposition. It was the first time a black man had given a major speech in front of white people in the South. As well, Booker T. Washington had shared the stage with President Grover Cleveland.

As a result of the speech, the government had allotted more money to Tuskegee Institute and private donations had begun to flow in. In his letter, Booker T. Washington explained to George that as a result of this increased funding, the school was going to add nine new departments, teaching a range of

skills related to agriculture and other practical trades. Washington also stated that he considered the new agriculture department to be the most important of these new departments. Eighty-five percent of all Southern blacks were small farmers, and many of them were struggling to make ends meet. As slaves they were used to growing only one crop, usually cotton, and that is what they now tended to grow on their small farms. Following the Civil War, though, the market for cotton had dropped considerably. Many of the black farmers were spending more to plant and cultivate their cotton than they got from selling it after the harvest. Unsure of what else to grow, they kept borrowing money and growing more cotton. Booker T. Washington hoped the new agricultural department could address this issue.

George stood up and walked around his room. He stopped to inspect the underleaf of his prize amaryllis plant. What should he do? He had worked hard to carve out a life for himself at Iowa State College. He was now a full-time lecturer, respected by both other faculty and students. He also had a magnificent greenhouse in which to conduct his experiments. He paced the floor for twenty minutes before deciding how to reply to Booker T. Washington's letter. Finally he sat down at his desk, dipped his pen into the inkwell, and wrote:

April 12, 1896

My Dear Mr. Washington:

Of course it has always been the one great ideal of my life to be of the greatest good to the greatest number of "my people" possible, and to this end I have been preparing myself for these many years; feeling as I do that this line of education is the key to unlock the golden door of freedom for our people.

Please send me catalogues and any other data you may have with reference to your institution, so I may get some idea of the present scope of your work and its possible and probable extension. I should consider it a very great privilege to have an interview with you….If you are prepared to make me an offer now it shall receive my first consideration….

May the Lord bless you and prosper your work,

Geo. W. Carver

George sat for a long time looking at the words he had just written. He knew that if Booker T. Washington actually offered him the position he would

take it. He also knew that such a decision would greatly change his life. George had never lived in the South, and he did not particularly want to. He had heard of the horrible things happening to black people down there. Lynchings were on the rise, and Jim Crow laws were quietly and efficiently eroding the rights black people had gained after the Civil War. During Reconstruction, which followed the war, black people were given the right to vote. As a result, they voted many of their own people into office and began to make strides in education and agriculture.

Now, nineteen years after the end of Reconstruction, Northern states had grown weary of the "Negro cause." The advances made under Reconstruction were now eroding. The South seemed poised on the brink of racial warfare. White people feared that blacks would become too powerful and retaliate against them over slavery. To counter this fear, laws were being put in place to keep the blacks and whites apart. These were known as Jim Crow laws, and they were supposed to provide separate but equal facilities and opportunities to blacks and whites. The reality was quite different. It was almost like being slaves all over again. For example, a white farmer was allowed to provide room and board for an orphaned black child in exchange for work on the farm. The child did not have to be paid or educated.

Ever since George had witnessed the vicious power of the hateful mob in Fort Scott, Kansas, he had been reluctant to put himself in situations where white people did not know him personally. He was the only black person among the faculty and students at Iowa State College, yet everyone knew he was a kind, intelligent, and godly man. He felt safe in Ames. But what would it be like in the South, where people would know nothing about him except that he was a black man?

It was a serious question. Indeed, George had read how Booker T. Washington's life had been threatened for daring to stand up for the rights of ex-slaves. There was no way George wanted to put himself at such risk unless he was certain that in doing so he could help other black people.

Nine days after mailing his reply to Booker T. Washington, George received another letter from Tuskegee. Eagerly he tore it open and scanned the page. Booker T. Washington began by saying he wanted an all-black faculty at Tuskegee so that students would have good role models. He then said he considered George to be the only black man in the United States, possibly the world, with the qualifications to run the new agricultural department at the school. Finally, he offered George a salary of $1,000 a year plus his own room in

a student dorm and food at the cafeteria if he accepted the position.

The more George read, the more convinced he was that Tuskegee was the next step for him. He penned a letter of acceptance back to Booker T. Washington. He wrote:

> I am looking forward to a very busy, pleasant and profitable time at your college and shall be glad to cooperate with you in doing all I can through Christ who strengthens me to better the condition of our people. Some months ago I read your stirring address delivered at Chicago and I said amen to all you said; furthermore you have the correct solution to the "race problem."

Booker T. Washington's solution to the race problem was simple. He believed that all Southern farmers, black and white, were struggling to make a living, and so they should all look for ways to work together to help one another. Washington argued that when black farmers proved their worth alongside white farmers, civil rights would follow.

George, who never liked to talk about racial issues, agreed with Washington. He thought that if black people quietly went about improving their own lives, white people would eventually make room for them. For the most part, this approach had worked for George. When he had been denied entrance into one college, for example, he eventually found another that would accept him. And now he enjoyed full acceptance by his peers.

As October 1896 rolled around, George was packed and ready to make his way from Ames, Iowa, to Tuskegee, Alabama. He had few personal possessions, just some clothes and a number of letters he had received through the years. However, during his time at Iowa State College, George had acquired many books about plants and amassed a large collection of bulbs and fungi. He donated his collection of fungi to Professor Pammel but kept the bulbs, hoping to do more work on crossbreeding once he had settled in Tuskegee.

The staff and students at Iowa State held a big farewell party for George, who hated saying good-bye to his friends and colleagues. He assured them that he was a good letter writer. If they wrote to him, he would be sure to write back straightaway. Much to George's surprise, Professor Pammel stepped forward with a gift everyone at the party had pitched in to pay for. As George unwrapped the gift, his eyes grew wide with wonder. It was a new microscope! George had

dreamed of owning one for years.

It was hard for George to express his thanks to everyone for the gift, not to mention their friendships over his years at Iowa State College. He promised to come back to Ames and visit as soon as he had the time.

On October 8, 1896, George Washington Carver stood outside the gates of Tuskegee Normal and Industrial Institute. He had not expected it to be very grand, and it wasn't, though he noticed the grounds were spotless. Not a single piece of litter fluttered in the cool northerly wind that whipped around his legs.

Inside the school, things were not quite the way George had imagined. Although it was supposed to be a school of higher learning, in reality no one who applied was turned away. This meant that some of the students could barely read or write and had to attend elementary education classes. Not only that, there was no equipment or money to start the new agricultural department, and few students were interested in agricultural studies anyway. Some students did sign up for agricultural studies, but as soon as they discovered it meant learning about how to plow fields and plant crops, they withdrew and enrolled in other classes.

The problem was that farming did not seem "glamorous" to most students. Few young black people made it to college, and those who did were not interested in farming. In their minds, farming carried with it the stigma of the slavery under which their parents had labored. Instead, young blacks dreamed of becoming lawyers and doctors and plantation owners. As a result, George realized his first challenge was going to be getting students into his classes.

In his new position, George was in charge of the school's two poultry yards, the dairy, the orchard, and the beehive, none of which was producing up to expectation. As if this were not enough, many staff members had been waiting for George to arrive so that he could take over other responsibilities as well. In addition to being responsible for running the new agricultural department, George was put in charge of overseeing the school plumbing, the safety of drinking water, landscaping the school grounds and keeping them clean, veterinary services, and making sure wagons were not driven recklessly on school property. It was enough work to keep four or five men busy, and George had to do it all without the aid of a single assistant.

George worked tirelessly. He managed to recruit thirteen students to study agriculture and began setting up a classroom science laboratory. It was a good thing he had been given a microscope as a farewell gift at Iowa State College, because it was the only piece of equipment in the whole department. Soon the students in George's class found themselves standing beside the trash pile at the

back of the school. Their tall, skinny teacher with the customary flower tucked in his lapel told them, “Many things that are thrown away still have a lot of usefulness in them.” He held up an old pot he found in the trash. “Once a few holes are drilled in the bottom of this it will make a good sieve. I want each of you to search through this trash pile and collect anything that looks like it could be useful.”

Gingerly the students began climbing over the trash pile, pulling out cracked cups, old pieces of rubber tubing, worn bicycle tires, and pieces of an old rusted cotton gin. Each new find brought an encouraging word from George, who had already decided that one aim of the class was to show how small farmers could make things for themselves instead of buying everything they needed.

Back in the empty laboratory, George began showing his students how to transform the items they had found into scientific equipment. Bottles became substitute test tubes, the spokes from an old wheel were crafted together to become a tripod, and a flatiron was transformed into a hard surface on which to grind compounds. The students soon caught on and began making their own enthusiastic suggestions about what an item could be turned into.

During the next week, all sorts of “junk” was collected and brought to the science lab. Other members of the student body and faculty began stopping by to see what George was up to. Someone called him a wizard for the way he could create something out of nothing. The name stuck, and George Washington Carver became known as the “Wizard of Tuskegee.”

There was another title George became known by, too. Many white people did not like to hear black people called Mr. or Mrs. in front of their name. They remembered when black people were slaves and thought it uppity to use those terms for someone who had once picked cotton and stood silently in front of his or her owner. This created a dilemma for George and many of the other faculty members at Tuskegee Institute. The staff could not have the students call them by their first names, and using just a last name like “Carver” or “Washington” didn’t seem very respectful. The students solved the problem by using the title doctor in front of George’s name, since no one seemed to object to a black person’s being addressed that way. Thus, George became known as Dr. George Washington Carver.

Money began to arrive at Tuskegee from the government but not in the large sums that had been hoped. This lack of support frustrated George, who had been told the government would provide funds to establish an agricultural station

at Tuskegee. Eventually, money for this purpose was turned over to the institute, but it was only a tenth of what was provided to white schools in the area to set up similar research stations. George complained quietly about this to Booker T. Washington, but he did not let his frustration show to his students.

Word slowly spread that George Carver's classes were interesting. Students began to transfer into them. By the end of the school year, twenty-seven students, including three women, were enrolled in the agricultural department.

George did the best he could with the limited funds and equipment available to him, but he knew he could do better with more money and equipment. He began to plot the best way to use his summer vacation to help the agricultural department get on its feet.

George fiddled with the letter in his hand. It was from his old friend and mentor, Professor James Wilson, who was now Secretary of Agriculture for President McKinley. In his letter, Professor Wilson invited George to visit him in Washington, D.C. whenever he could. This set George thinking. He had already been considering going to Washington to visit the Smithsonian Institution. He wanted to talk to the president of the Smithsonian about sponsoring some research and donating equipment. George decided that it might be a good thing to visit James Wilson while he was in Washington.

Secretary Wilson asked George many questions about his new position. George told him all about Tuskegee Institute. Finally, he invited Secretary Wilson to come to Tuskegee in the fall to open the new Slater Armstrong Memorial Agricultural Building. That way he could see the place for himself.

James Wilson was delighted and immediately accepted the invitation. After a meeting with the president of the Smithsonian, George rushed back to Tuskegee to tell Booker T. Washington the good news. For the first time ever, someone from the executive branch of government was coming to Tuskegee. Booker T. Washington was thrilled. What better publicity could there be for the school than the Secretary of Agriculture coming to see what had been achieved so far?

During the next semester, everything possible was done to prepare for Secretary Wilson's visit. The school choir practiced continually, the concrete steps were scrubbed, the grass was raked, every tree and bush was trimmed, speeches were written, and a huge fireworks display was ordered.

The opening of the Slater Armstrong Memorial Agricultural Building was a great day for George. He dreamed of all the experiments he could do in the new building, a large two-story structure. On the second floor was a big, airy room

that George designated as a herbarium. It was flanked on one side by a reading room and on the other by a lecture room. Downstairs were more lecture rooms and laboratories. The basement housed a milking shed, with the cows using a ramp to get in and out.

Not only did George have control of this wonderful new building, he also had five new assistants, one for each division of the agricultural department: horticulture, dairying, commercial gardening, stockraising, and farm management. With a new building and staff of five, George knew he could begin making a difference at Tuskegee. But he had set his heart on teaching more than just the students who attended the institute.

As he took his walk each morning, George couldn't help but notice the terrible conditions many of the black farmers and some of their white neighbors lived under. The people lived in tiny, shabby huts with dirt floors. Typhoid contaminated the water in their wells. The eyes of their children were glazed, and the children's bellies were distended. And each year the farmers planted cotton that only made them poorer. George knew farmers like these would never come to the institute. For one thing, most of them could not read or write, and for another, they had too much work to leave their farms and families. George knew that somehow he had to find a way to reach out and help these farmers.

## *Chapter 9*



# The Farmer's Institute

George Washington Carver stood in front of his class, waiting for his students to find a seat. When they were all finally organized and a hush had settled over the room, he held up a clump of knotted, tangled string. "Do you see this?" he asked. "This is what ignorance is like." Reaching into his pocket he pulled out a carefully wound ball of string. "And this," he continued with a flourish, "is what intelligence is like."

Several of the students nodded. They had been around George long enough to know what he meant. Everyone knows something. Most people know a lot of things. But it is the person who can organize what he or she knows who will get somewhere in life.

George also tried to demonstrate this important truth to his students in the way he taught them. For example, most other colleges taught botany by discussing different topics as if they had no relationship to each other. George, though, believed that everything in nature was interconnected in some way. When he taught botany, he tried to show these links between things. He didn't just talk about potatoes, examining the flowers in one class and then discussing stalk diseases the next semester. If he was teaching about the potato, he taught everything he knew about potatoes right then and there. By the time class was over, students knew how to propagate the potato, when to plant, and how to

decide what fertilizer to use. They would also understand what bugs and fungi to look for and know how to kill them. They would even know how to preserve potatoes and prepare some tasty potato dishes! George's students learned far more than botany in his class; they learned all there was to know about one crop after another.

News soon got around about George Carver's unusual teaching style. Local farmers began to realize he was a man they could learn from. George taught practical lessons that they could apply themselves. One or two at a time, farmers came to Tuskegee to ask George questions. They always left with not only the answer to their question but also a few other good ideas.

One day, after a poor farmer had dropped off a worm-ridden potato for analysis, George had an idea. Why not invite the local farmers to Tuskegee Institute once a month? With them gathered together this way, he could show them new farming practices, and they could learn from each other's successes and failures. And so the Farmer's Institute was born. On the third Tuesday of each month local farmers arrived at Tuskegee Institute for their meeting. They brought along their wives, since George had many practical tips for the women as well.

The Farmer's Institute soon expanded into an all-day affair. Each month the farmers and their wives traipsed down to the experimental farm to see what George and his students were up to. At the farm, George would give a short demonstration on how to mound potatoes for greater crop yields or how to plant marigolds beside cantaloupes to help fend off pests. The farmers paid close attention. George was imparting information they could use. They could see and touch and ask George questions about what he was doing.

The farmers quickly realized that George Carver's ideas could help to improve their farms and crops. Soon they were bringing soil samples for George to analyze. George patiently showed them how to test for the fourteen elements that should be found in healthy soil. If some were missing, he would tell the farmer the least expensive way to put those elements back. As he worked, George often told those watching that the land was part of a great circle. Cotton, for example, took all the nitrogen from the soil, but nature had provided other plants called legumes that put the nitrogen back. George believed that God had made everything in nature to be in perfect balance. It was the farmer's job to keep the balance between elements leaving the soil and returning those elements to the soil. As long as farmers replenished the elements in their soil, George told them, the soil would always stay fertile and produce good crops. George also

used the experimental farm to demonstrate this principle to local farmers.

Running the Farmer's Institute, however, was not enough for George. Since hundreds of other poor black farmers could not come to the meetings, George decided to go to them instead. One Friday afternoon, George loaded up a wagon, hitched it to a mule, and set off into the Alabama countryside. He did not know where he would sleep at night, but he trusted that someone would give him a bed in exchange for the information he had to impart.

At each farmhouse George came to, he stopped and talked to whoever was inside. If it was a woman, he would invite her out to look at the jars of preserved plums, peaches, and apples and at the range of pickles and jellies the girls in the cooking class had helped make. And if a man was home, George would sit with him on the front porch and talk about one of his favorite topics: owning land. Everywhere he went, George urged farmers to save a little money so they could one day own their own land. "Save just five cents a day," he would say, "and in a year you will have eighteen dollars and twenty-five cents. Land out here sells for five dollars an acre, so in a year you will have enough money to buy three acres and even have three dollars and twenty-five cents left over to buy seed."

Even though the thought of owning their own land was astonishing to many black tenant farmers, they agreed it was possible to save five cents a day, especially if they followed George's advice about raising enough food to feed their entire family all winter.

George could hardly believe how much money the tenant farmers wasted buying food or tools they could grow or make themselves. He recalled just how thrifty Moses and Susan Carver had been, and he encouraged farmers in Alabama to be just as self-sufficient. There was no point in growing cotton to then spend all the money made from its sale to buy potatoes, eggs, and meat. George urged the farmers to grow at least one other crop besides cotton and learn how to can that crop so that they would always have food to eat.

It was not long before George decided that sweet potatoes were the best choice for farmers to grow. Farmers who had grown them in the past had harvested about 37 bushels of sweet potatoes per acre. By following George's advice on how to plant the crop and keep it healthy and strong, many farmers were able to harvest 266 bushels of sweet potatoes from every acre they planted! Not only were the sweet potatoes good to eat, but their leaves and stalks made nutritious stock feed.

Back in his laboratory, George set about discovering exactly how many uses sweet potatoes could be put to. He worked out a simple way to sun dry

them, along with the best way to preserve them, and even how to grind them into flour. He also made a sweet potato laundry starch. And when sweet potatoes were left to rot, they could be boiled down and made into dye. All these uses amazed the farmers, who began to understand what George had been trying to tell them from the first day they met: If you look around, there are plenty of ways to make what you need yourself and save money.

George wrote a bulletin about how to grow and use sweet potatoes. Other research stations regularly published bulletins on a range of subjects, although these publications were usually produced by scientists who did not know how to write in a way that simple farmers could understand. George, though, had been a farmer, and he knew how to write in a way people could understand. He developed what he called a three-fold bulletin that was divided into three separate parts. If, for instance, the bulletin was about how to grow strawberries, the first part was written to the farmer. George would tell farmers what time of year to plant strawberries, how much straw to use to cover the young plants, and how much sun and water the plants required. The second part was written to the farmer's wife. George laid out ways to use strawberries, such as how to make strawberries into fruit leather, jelly, and a tonic drink. The third part of the bulletin was written to explain the plant family to which strawberries belonged and give some scientific data about the composition of the soil they thrived in. This section of the bulletin was designed for the graduates of Tuskegee Institute who were now teachers and farm advisers throughout the South.

The three-fold bulletin became very popular. Farmers would walk for miles to get a copy—even if they were illiterate and needed their children to read it to them. The information contained in the bulletin could make the difference between living in poverty and climbing out of their dire economic situation.

Everywhere George went he was asked to give demonstrations on how to weave matting from cornstalks or make whitewash from local clays and crushed rocks. The Wizard of Tuskegee was certainly making a name for himself. People all over the world were starting to take notice of him. Andrew Carnegie, the famous industrialist, donated a library to Tuskegee Institute. He visited the school in person to see what George was up to.

Other important visitors also came, including the president of Harvard University and William Taft, Secretary of War. As well, government officials came all the way from Africa to seek out George. These officials were looking for a way to make soybeans into a milk substitute, since it was nearly impossible to keep a cow alive in their homeland. George could not spare the time to go to

Africa to help them, but several of his Tuskegee Institute graduates were able to go and help.

No matter how busy George was with international visitors and teaching students and poor farmers alike, he kept up his habit of going for a predawn walk. When a student asked why he did this, George replied, “Nothing is more beautiful than the loveliness of the woods before sunrise. At no other time have I so sharp an understanding of what God means to do with me as in these hours of dawn. When other folk are still asleep, I hear God best and learn His plan.”

During his morning walk, George always picked a flower or sometimes a weed to wear in his lapel for the day, and he often brought back rocks or insects to show the class. His amazing knowledge of plants and animals impressed his students, who continually searched for some plant or insect he couldn’t identify. This was not easy, however. One morning when George got to class, a dead bug that had been neatly pinned to a piece of paper was on his desk.

“Dr. Carver,” began a young man in the front row, “I found this bug in my room last night. I have never seen one like it before. Could you tell us what it is?”

George looked around the room; every eye was focused on him. He pulled out the magnifying glass he kept in his pants pocket. “Let me take a closer look,” he said.

The class waited silently as George studied the insect. The bug had a tiny head, a fat, shiny body, and long skinny legs. George smiled to himself, knowing exactly what he was looking at. It was not one insect but parts of three different insects attached to each other to make a strange creature.

George cleared his throat. “You are right,” he said seriously. “This is a most unusual bug. In fact, I have never seen one myself. I have only read about them. But I can tell you beyond a shadow of a doubt that this is what’s called a humbug.”

The class erupted into laughter, and George grinned widely. He liked it when the students tried to trick him. He immediately began to think about how he could get back at the class!

## *Chapter 10*



# The Thing He Dreaded Most

It was not long before Tuskegee graduates began to fan out across the South. Some of them became teachers themselves, sharing what they had learned in small rural schools that became known as “Little Tuskegees.” George Carver visited these tiny schools whenever he had time, offering advice to the farmers and encouragement to the teachers. It was on one of these visits that George came into contact with the thing he dreaded most.

It was a cool, overcast day in mid-November 1902 when George set out for Ramer, Alabama, about twenty miles southeast of Montgomery. Ramer was a very segregated town. No black people were allowed to live within the city limits. Despite this unfriendly environment, two Tuskegee graduates, Nelson Henry and Ada Hannon, had managed to gain the respect of most white people in town. They were quiet and law-abiding, and they taught black children to read and write and work the land.

On this visit to Ramer, a vivacious companion, Frances Johnston, accompanied George. She was a famous photographer from the North and was touring the South to document the improvements being made in black education. On her arrival in Tuskegee, George had invited her to visit the little school in Ramer with him. All went well on the train trip. They pulled into the Ramer station at 9 P.M. It was threatening to rain as they stepped from the train. Nelson

Henry was waiting to meet them with a buggy.

After a hearty handshake and introductions, Nelson loaded the bags onto the back of the buggy, and everyone climbed aboard. Frances Johnston was anxious to interview Nelson Henry about the challenges he faced teaching in the little school, so she sat in front beside him. George, who was tired from the trip, sat contently in the back of the buggy. With a twitch of the reins they were off.

The first stop was Nelson Henry's house, where George was dropped off. Nelson then drove Frances Johnston into town to the only hotel, where she would spend the night. While Nelson was gone, George busied himself making a pot of coffee. Soon the coffee was boiling furiously on the woodstove, but Nelson had not arrived back. George was puzzled. Nelson had told him it was only a mile to the hotel, and he had been gone for at least an hour by now. The coffee continued to boil, and George poured himself a cup. He sat quietly in a cane chair and listened for the sound of Nelson's buggy. Light rain began falling on the tin roof of the small house. More time passed, and George's stomach began to feel queasy. Goosebumps formed on his arms. Something was wrong, but what?

George continued to wait uneasily. Twenty more minutes passed before he heard a faint tap at the door. He sat bolt upright. "Who is it?" he whispered.

"It's me, Frances Johnston," came an urgent reply. "Let me in."

George hurried to the door and unbolted it. Frances stood there, her brown hair stringy and wet, her face as white as a sheet. "Quickly," she ordered. "Bolt the door and turn out the lamp."

George peered through the drizzle out into the darkness before he shut the door. Did he see the shadow of a person by the barn door? He couldn't tell. "Tell me what happened," he said urgently, turning to Frances. "Where is Nelson?"

Frances took a deep breath. George could make out the outline of her shaking body in the darkness. "It was dreadful," she said. "I can't believe something like this could happen in a civilized country like America!"

"What?" George asked, growing anxious for his student. "What happened to Nelson Henry? Where is the buggy?"

"I don't know," Frances replied. "We had just got to the hotel. Nelson was getting my luggage when three young men pulled up beside us on horses. They started yelling the most awful things about Nelson and me being together, and then they started shooting!"

George could feel a knot of panic rising in his throat. The lynching scene in Fort Scott, Kansas, flashed vividly before him.

Frances continued. “Nelson told me to run, and he climbed back onto the buggy and cracked the reins as hard as he could. The horse was at a full gallop in half a second. I didn’t know what to do. I ran back here to find you.”

George didn’t say anything for a long while. There was nothing he could do for Nelson Henry now. Either the young man was dead, or he had managed to escape.

They heard a rustle outside the window. Frances reached out for George’s hand, and George held her hand tightly. “Everything is going to be all right,” he assured her, though he himself was anything but sure of that fact. Frances was from the North, and she simply did not understand the dangerous situation she had now put George in. He was a middle-aged black man sitting in the dark alone with a young white woman. If the two were found together, no one would stop to ask questions. They would not know that he was a well-respected scientist or that Frances Johnston was a famous photographer. No, they would just be a black man and a white woman alone together. And in Ramer that most likely meant death for George.

“We have to do something,” George finally said, his voice higher than normal. “I think it would be best if I take you back to the train station and leave you there. Let’s hope a train will be coming by early in the morning.”

“I suppose so,” Frances agreed. “It is probably best to get out of here, but I’m not going to let this rest. It’s an outrage to be treated like this!”

George smiled at the woman’s pluckiness. Frances reminded him of Mrs. Liston when she had come to Iowa State College and eaten dinner in the basement with him and the school’s black servants.

“We can sort that out later. Right now we have to get to safety,” George said, taking the coffeepot from the stove and turning down the damper.

George reached for his bag and then slid the door bolt open. It was raining harder now, and he took Frances by the arm. Together, cautiously, they walked toward the train station. George’s senses were alert to every sound and every movement as they walked. He heard horses’ hooves in the distance, and the two of them crouched down beside a watering trough. Two men on horses galloped by, guns slung over their shoulders.

Several minutes later, another rider went past, his face covered by a white mask. George’s blood froze. How could this be happening? The Civil War was over and black people now had rights. Yet there was still so much hatred in the South.

Finally, George and Frances arrived at the station. George hated to leave

Frances there alone, but he had no choice. She would be much safer without him. He pointed to the coal pile. “Stay out of sight behind that pile until you hear the train whistle,” he advised.

“But what about you?” Frances asked, gripping George’s arm tightly.

“I’ll start walking, and I hope to see you back at Tuskegee in a day or two. Booker T. Washington is in Boston at the moment, but tell his secretary, Mr. Scott, what has happened. I have to go now. It’s not safe for us to be together. God be with you.”

With that George crossed the railroad track and disappeared into a field. He began to walk northward. The mud squelched beneath his boots as he slogged along between the rows of corn. It was late fall, and by now most of the corn was just dry stalks. Ever the teacher, though, George stooped down, picked an unusual weed, and slipped it into his pocket. He would examine it in the morning daylight.

George had walked about three miles when he heard galloping horses. “I bet he came this way,” he heard a deep voice yell. “We’ve looked everywhere else.”

Startled, George quickly looked around and spotted an irrigation ditch. He ran over and rolled into it, pulling some weeds over himself as he did so. He lay completely still and waited, his heart pounding in his chest. Bang! He heard gunfire. Bang! Another shot. Several men laughed. “Wait until you have a real target to shoot at,” laughed one of the men.

George held his breath, praying he would not become that target. After the longest minute of his life, the men finally moved on. George waited motionless for ten minutes before he cautiously sat up. His shoulders and back were soaked in mud, but he was alive and in one piece.

Staying low to the ground, he walked on through the night. In the early morning light he found a railroad track and followed it north until he came to a small station. An hour later, a train hissed to a stop, and George quickly climbed aboard. The conductor gave George a strange look as he sat down, but George said nothing. He did not want to talk about his brush with racial hatred. His mind was still reeling. How could one group of people hate another so much?

Frances was waiting to greet George when he finally arrived back at Tuskegee. “Nelson is fine,” she assured him. “He was able to escape, but I am so disgusted by the situation that I am determined to press charges. No human being should be treated the way we were. It is a shame on all Americans.”

In the end, Frances had to be content to photograph the injustice of the

post–Civil War South rather than press charges in court. Booker T. Washington and his advisers thought that such legal action would do more harm than good. As it was, Nelson Henry and Ada Hannon were too scared to return to Ramer, and the black students there were too intimidated to go back to school. In the end, the entire school was moved farther out of town, and two new teachers were hired to run it. As a result of the incident in Ramer, an official letter was sent to all the staff at Tuskegee. The letter stated, “Hereafter those who go out in any way as representatives of the school must be guided by its judgement or go out on their own responsibility.” In other words, there would be no more groups of black and white people traveling together in the name of Tuskegee Institute.

The whole situation took a toll on George, who had been hunted down like an animal. If he had been caught, he would most likely have been killed. He wished he could forget what had happened, but he could not. Indeed, memories of the incident would come back to haunt him throughout the rest of his life. Still, on the practical side, George was not one to be discouraged about race relations. For every white person who hated someone because of the color of his or her skin, there was another who could look past the color and see the whole human being. George looked for that kind of white person to work with.

One of these people was Dr. Walter Hill, Chancellor of the University of Georgia. Dr. Hill had been invited to hear George speak at a farmers’ conference, and he was very impressed by what he saw and heard. Not only was he impressed, he was not afraid to admit it. After the lecture, a reporter interviewed him and asked the question, “So what did you think of Dr. Carver?”

Dr. Hill replied, “That was the best lecture on agriculture to which it has ever been my privilege to listen. The speaker not only has shown himself a master of the subject but also is possessed of pedagogical ability to impart it clearly and forcibly to others—a combination which is possessed by only five or six men in the entire country.”

The endorsement was published in newspapers throughout the country, and before long, George was receiving more invitations than ever to speak. He accepted as many engagements as he could, and he never turned one down out of fear for his life. He believed he had a message that needed to be shared, no matter what the cost.

George even visited a large farm at the request of a white overseer. The overseer was trying to work out which crops to grow in which fields, and he wanted George to do some soil analysis for him. When George had completed his work, the overseer invited him to spend the night in his house with his wife

and children. This was a brave stand on the part of the overseer, because word would get around to his neighbors that he had allowed a black man to sleep in one of his beds. Still, George stayed in the house and made blueberry pancakes for the family for breakfast.

As always, George was interested in the poorest workers, and he asked the overseer if he could visit with the black farmhands. The farmhands had several acres of land allotted to them for their personal use. As usual, George "preached" the same message to them as he did to other black farmers. He sat on the back of an old wagon and urged them to move away from growing cotton on their limited land. He argued that growing cotton left them dependent on the price they could get for their crop at harvest time, and they had no way of knowing what that would be ahead of time. This meant that a farmer could actually lose money growing cotton, so that when all his expenses were added up, he was poorer at the end of the year than he had been at the beginning. George urged the farmhands to grow crops they could eat themselves so that if the price for their harvest was low, they could keep it and eat it throughout the winter.

The farmers could see George's point, but while some of them changed what they grew, many of them did not. They continued to grow what their fathers and grandfathers before them had grown. The only problem was that their fathers and grandfathers had been slaves. They had not been responsible for crop losses, nor did they have to figure out how to feed their families. Their owner did that.

George was frustrated by the fact that the poor farmers would nod their heads in agreement and then go right back to their plots of land and plant more cotton. He wished there were something he could do to convince them to change. As it turned out, something unexpected did happen, something that would change the face of the South forever and throw George Washington Carver further into the spotlight.

## *Chapter 11*



# The Boll Weevil

It was Monday, February 15, 1904, and George Carver whistled quietly as he strolled to class. Today he was going to be doing what he loved most: teaching poor farmers how to do better for themselves. It was the first day of the "Short Course in Agriculture," a study program specially designed to teach poor farmers new farming techniques. Over the winter, since there was a lot less work to do around the farm, George and his assistant George Bridgeforth developed a winter study course for farmers. During the course, farmers were given demonstrations on how to plow using the latest angled tillers, how to test milk for its fat content, how to select and store the best seed, and ten ways to judge the quality of a cow.

The farmers' wives did not miss out, either. They were eager to learn how to raise plump poultry, bake bread, and churn butter. And George himself demonstrated how to turn a collar and cuffs. This doubled the life of a shirt, because the collar and cuffs were always the first thing that wore out. When George was seven years old, Susan Carver had taught him how to unpick the collar and cuffs, turn them over so that the worn side was face down, and reattach them. George had always done this to his own shirts and had already shown countless students how to do it to theirs.

The women were most impressed with George's sewing ability and urged

him to show them better ways to darn socks and weave cotton fabric. George was happy to oblige. He loved to see people using their hands to save themselves money.

As usual, on his way to class this particular day, George stopped at the college post office to collect his mail. He glanced through the pile waiting for him. It was the usual assortment of letters from friends and coworkers. But one letter caught his eye. It was in an official envelope and had the seal of the Department of Agriculture stamped on the front of it. George slipped it open. Inside was an official warning. The notice began, “The boll weevil is moving north at a steady rate. It knows no political boundaries, and it has crossed from Mexico into Texas. At this stage we can see no reason why it will not proceed into your region.”

George frowned. The boll weevil was a dreaded name in the Cotton Belt. It was the one thing that could destroy a crop of cotton from the inside out. The boll was a part of the cotton plant, about the size and shape of a golf ball. It was inside the boll that the cotton fiber formed and pushed its way out. The boll weevil laid its eggs right inside the boll, and when the eggs hatched, the newborn beetles steadily ate their way through the cotton fiber inside the boll. When the bolls burst open to signal harvest time, there was nothing left inside. The crop was ruined. And now the boll weevil was headed for Alabama.

While the tiny boll weevil posed a huge threat to cotton production, George knew that old habits died hard. It would be a difficult job to convince farmers not to grow cotton, especially since the boll weevil had not yet appeared in Alabama. Still, George did his best to warn farmers. He started that day, telling the farmers in his class that they needed to plant other crops. He also wrote bulletins warning about the looming problem of the boll weevil. He told farmers that if they insisted on planting cotton, they should do it as soon as the last frost was over so that they would have some hope of getting a crop in before the weevil arrived.

Many farmers asked George about spraying calcium arsenate, a strong poison, on their cotton plants. George advised them against this. Certainly the calcium arsenate would kill the boll weevil, but it was so expensive that it would cost the farmer more to spray his crop than he would get from selling it at harvest time.

Everyone was upset at the news of the advancing boll weevil. Cotton was called “white gold” in many parts of the South, and no one could imagine what would happen if the cotton crop failed completely. No one, that is, except

George Washington Carver. Secretly he was hopeful that some good would come out of the pending disaster. For the past eight years he had been preaching to farmers that they should grow other crops, especially legumes, that put nitrogen back into the soil, replacing what the cotton had depleted. It had been an uphill battle. But now that the boll weevil was drawing the attention of farmers to the folly of growing a single crop, George seized on the opportunity to promote other crops.

During his time at Tuskegee, George and his students had done many experiments to find out which plants grew best in fields that had for years been used to grow cotton. In the end, they decided four crops—cowpeas, sweet potatoes, peanuts, and soybeans, all legumes—were the best to grow. Cowpeas were an excellent food for cattle, while sweet potatoes were good for the farmer and his family. They could be preserved and prepared in many different ways and eaten throughout the year. Soybeans were rich in protein, and many things, including milk, could be made from them. Despite the fact that they were suited to the climate of Alabama, Southern farmers resisted growing them. Most had never seen a soybean and could not imagine learning how to plant and grow them. Peanuts were not native to the area, either. They were originally from South America, but had been brought to the United States from Africa. Indeed, many black people still knew them by their old African name—goober. Despite the peanut's not being native, many farmers grew a few peanut plants around their house, mostly for the children to eat while they were out working.

George knew that peanuts were one of the richest forms of protein, carbohydrates, and fat, and since farmers were already a little familiar with them, he decided to promote them along with cowpeas and sweet potatoes as good replacement crops for cotton.

"The sweet potato and the peanut are twins," he told everyone who would listen. "A human being could survive on just those two foods. Together they contain everything that's needed for our health."

George's message had mostly fallen on deaf ears in the past, but now, with the boll weevil chomping its way through Texas and into Oklahoma and Arkansas, many farmers knew it was only a matter of time before they had to change their ways. Farmers in some areas, such as Coffee County, however, refused to admit a problem was looming. But sure enough, in the summer of 1904, the little black boll weevil munched its way into Alabama. Those farmers who had listened to George were happily tending to their cowpeas, sweet potatoes, and peanuts and were unaffected by the beetle.

Of the three alternate crops farmers planted, peanuts were the easiest to grow. Peanuts were originally a tropical crop, and the plants had adjusted well to the Alabama summer. If there was a drought, the peanut plant's leaves merely curled up and the plant became dormant until more rain came. Because of George Carver's urging and the ease with which peanuts could be grown, soon thousands of acres of them had been planted. This, however, led to a big problem, one that poor farmers looked to George to solve, since they had planted peanuts on his advice.

Up until 1904, most of the South had been geared toward growing cotton and selling it to the textile mills in the North. The farmers knew the system. They knew exactly when and how to harvest their cotton, bundle it, and send it to the local market, where rich bankers and merchants bought it and shipped it north by train. But what about peanuts? What were farmers to do with the thousands of pounds of peanuts they had grown? Since Americans used very few peanuts, no merchant wanted to buy the peanut farmers' crop and ship it away.

As their crops of peanuts ripened and were harvested, many farmers became angry and descended on Tuskegee Institute. "You told us to grow peanuts. We can use a few to eat ourselves, but what are we going to do with the rest of them?" they demanded of George.

It was a good question, and one for which George did not have an answer.

Morning after morning, as he went for his walk, George asked God to help him find the answer. Without an answer, small Southern farmers, both black and white, were going to lose everything they had worked so hard for.

Finally, one morning, as George was praying and walking, he said, "Mr. Creator [the name he often used for God], why did You make this universe?"

In his heart, George heard a reply. "You want to know too much for that mind of yours!"

So George narrowed his question. "Mr. Creator, tell me what man was made for."

Once again he heard a reply in his heart. "Little man, you are still asking more than you can handle. Cut down the extent of your request and improve the intent."

George thought for a moment, then asked a question he really wanted to know the answer to. "Mr. Creator, why did You make the peanut?"

"That's better!" he felt God reply. "Go to your laboratory and I will show you."

Quickly George walked back to the laboratory at Tuskegee Institute. "Don't

let anyone disturb me today," he instructed his assistant. "I have some important work to do. And bring me three bushels of peanuts, please."

His assistant nodded, though he gave George a puzzled look. Three bushels was a lot of peanuts.

Soon the peanuts arrived, and George sat quietly at his desk holding one. He turned it over and over in his hands. "What do I do now?" he prayed.

"Take the peanut apart," he heard the reply.

This was not a difficult task for a scientist like George. He piled some peanuts on his workbench and set to work. Before long he had several beakers lined up on his bench. Each contained a different part or element of the peanut: sugar, starch, water, fat, oil, gum, pectos, pentosan, and amino acid. Now, instead of a peanut, George had the many parts of a peanut.

George sat quietly at his desk and waited again. "Now what do I do with the parts?" he asked.

Again he sensed the answer in his heart. "I have given you three laws, namely, compatibility, temperature, and pressure. All you have to do is take these parts and put them together using these laws, and you will see why I made the peanut."

In a second, George grasped the idea. By mixing different elements, heating or cooling them, or squeezing them under pressure, he could make entirely new products from the parts of the peanut. It was like rearranging the words on a page to make a different story.

Quickly he set to work. He worked through the day, not bothering to stop for meals. When he was hungry, he ate a handful of peanuts. Night fell, and still George worked on. When he got tired, he took a little nap in his chair, and then worked on. The next day, students began to peer in through the windows of his lab to see what their professor was up to. George hardly noticed them; he was too intent on what he was doing.

At the end of the third day, George opened the door of his laboratory and invited students and faculty in. Arranged on the counter was a long line of jars and petri dishes, each of which George had labeled. As the students walked along the row of jars and dishes, they marveled at all the products George had produced from the humble goober—everything from peanut milk and peanut butter to bleach, washing powder, shampoo, facial cream, plastic, shaving cream, and ink. And for every product on the counter, ideas for ten more were rolling around inside George's head.

As everyone looked at the collection, George told the story of how he had

come to discover all these new peanut products. “There is no such thing as waste in God’s world,” he said. “Every part of the peanut has a use; it is up to us to discover it.” With that, he held up a paving stone made from peanut shells and some fine linenlike paper also made from the shells.

The next few months were a flurry of activity as George and his assistant tried to get the word out about all the things peanuts could be used for. They knew that the sooner manufacturers understood all the products that could be produced from peanuts, the sooner they would buy up the huge quantities of them now sitting in warehouses and barns.

The food items proved the easiest to convince people to make. No one could resist the wonderful rich peanut chili, or the delicious peanut and honey crunch bar. George began churning out bulletins filled with peanut recipes while behind the scenes he worked with wealthy men to find ways to manufacture and promote some of the hundreds of new products he had discovered.

## *Chapter 12*



# Success and Sadness

**T**he experimental station at Tuskegee Institute continued to show farmers what could be done if they were willing to change their ideas and practices. Indeed, by 1906, the Tuskegee experimental farm was producing 266 bushels of harvested crop per acre, which translated into $75 profit an acre. If farmers owned ten acres of land and followed the advice of the experimental station, they could make more than enough money to live on and have some left over to save to buy more land.

Important people continued to visit the institute. At the same time, Booker T. Washington received an invitation to visit President Theodore Roosevelt at the White House. However, this did not work out. When some of the local white people learned of the invitation, they began to send death threats to Booker T. Washington. It was still too much for them to accept that an ex-slave should sit down to talk and eat with the president. A black doorman or butler was fine in the White House, but not a black guest. Booker T. Washington was a brave man, but he was not prepared to risk death for this particular privilege. Instead, he invited President Roosevelt to come to Tuskegee.

President Roosevelt gladly accepted the invitation, and George and many of the faculty and students at Tuskegee Institute got to meet the president of the United States. In fact, George showed President Roosevelt around the grounds

and guided him through a display of produce, including a twenty-pound cabbage, that members of his Farmer's Institute had grown. The president was impressed with all he saw.

George also had the opportunity to discuss with President Roosevelt the latest ideas in onsite farm education. Iowa State College had put a new plan into action called the "Seed Corn Gospel Train," a specially outfitted train that stopped at rural stations to meet with groups of farmers. Special agricultural instructors on the train would roll up the sides of the railcar and begin telling farmers how to select, plant, and take care of their crops. It was called the Gospel Train because it preached the "gospel" of smarter farming for higher crop yields.

Of course, George had been going out into the countryside with a wagon for years now, and since President Roosevelt had been intrigued by the idea, Booker T. Washington suggested that funds might be found to establish a more permanent agricultural "road show." A train like the one used in Iowa was considered, but George was anxious to use a vehicle that could reach remote farmers who lived far from the nearest railway station. Spurred on by the need to get information out to farmers about peanuts and sweet potatoes, George drew up plans for a large wagon that could display a variety of charts, samples, and farm equipment.

Meanwhile Booker T. Washington set about finding the money needed to build such a wagon. He talked with a New York banker named Morris Jesup, who had been looking for a way to help poor black farmers better themselves. An agreement to fund the new project was soon reached, and work on the "Jesup Agricultural Wagon" soon got under way.

George knew just the person to staff the new wagon—Thomas Campbell, one of his old students. However, getting the funds to pay for a full-time demonstrator was not easy. George Carver and Booker T. Washington persevered until they were able to collect the money needed. The General Board of Education for Alabama paid some of Thomas Campbell's salary, and the Northern Trust Fund and Tuskegee Institute made up the balance. Thomas Campbell was paid a dollar a year, just under eight cents a month, from the United States Department of Agriculture. It was not a lot of money, even in those days, but it allowed Thomas to call himself an official federal employee, with all the rights and protections that afforded. Thomas also got to use the title "Special Agent in Charge of the Farmer's Cooperative Demonstration Work."

Thomas Campbell was the first black employee of the USDA in Alabama.

He had learned well from George Carver and did a wonderful job instructing farmers. In 1906, the first year the Jesup wagon was used, over two thousand people a month came to hear what Thomas had to say. More important, Thomas knew that farmers needed to see the difference that new agricultural techniques could make to their farms. Since he could not take them all to Tuskegee to see his old professor, he came up with a way to prove that these new ideas worked. When the Jesup wagon pulled into an area, Thomas would find a local farmer who was willing to try something different. He would then set to work using scientific methods to plant a crop of sweet potatoes, cowpeas, and peanuts. He would keep coming back to the farm to help the farmer tend the crop and finally harvest it. Invariably, these crops grew bigger and stronger than those of other farmers in the area. Soon even the most skeptical farmers were leaning over the fence wanting to know how Thomas Campbell had coaxed so much out of the ground.

The Jesup wagon was declared a complete success, and soon a second black farm agent was appointed and paid for by the state. Then a third and a fourth were added. Eventually there were 846 black graduates of Tuskegee Institute and other nearby schools who were out in the countryside every day helping farmers improve their crop yields.

George was extremely pleased that his message was being preached far and wide. He continued to experiment with new ways to use peanuts as well as soybeans. Although he'd had little luck getting farmers to grow soybeans, George was sure that one day they would become a common crop in the South. Soybeans had so much potential. They made first-class milk, flour, coffee substitute, oil, and breakfast food and far too many other healthy, low-cost products to be ignored forever.

The campus at Tuskegee was feeling George's influence in other ways, too. In 1907 several students asked George to help them start a Sunday evening Bible study. At first only seven students came, mainly because they were all expected to attend two other church services each Sunday, one in the morning and another in the evening.

George's Bible study was sandwiched between dinner and the evening chapel service, which meant a very rushed meal for those attending. Still, despite the time constraints, word soon got around that Dr. Carver's Bible studies were the most interesting thing happening on campus. Within three months, over a hundred students were gulping down their dinner so they could attend the Bible study. George used plants, rocks, and maps to illustrate his talks, always hoping

that through studying the natural world, a student would catch a glimpse of God. As the years rolled by, George's Bible study became even more popular. Indeed, students would not let him "retire" from what became a Sunday night ritual for thirty years!

Along with all of George's success, there was one note of sadness. One morning in 1910, George received a telegram informing him that his adopted father, Moses Carver, had died at ninety-five years of age. Moses was buried in the pair of trousers that George had recently sent him as a birthday gift. News of Moses Carver's death brought back many memories to George, who mourned the passing of the last member of his "family."

George could not afford to stop and mourn for too long. More and more products flowed out of his laboratory—everything from wallboard made from banana stalks to axle grease made from peanuts. George's early-morning walks in the countryside continued to inspire him. He discovered fine, powdery-white clay nearby, which he was convinced could be used to make the finest quality china. To prove his point, George made himself a potter's wheel and set about forming a set of vases.

One day, as George taught some students how to pluck poultry, he began to think about uses for hen feathers other than to stuff pillows and mattresses. Eventually he came up with an exhibit of fifty-three ways to use feathers, including weaving them into picture frames and making knitting needles.

George continued to live on campus in the dorm. Students loved to visit his room. They were never sure what they would find their professor up to next! Sometimes George presented the results of his experiments as if they were magic tricks. He discovered a deposit of bentonite by a stream on the school property and amazed his students by using it to make the black ink disappear from a newspaper.

George was quite a novel sight by now. He used every method he could think of to get the message across to his students that nothing should be wasted. Everything should be used until it wore out, and even then another use should be found for it. George thought of himself as a walking billboard. In 1910 he was still wearing the same suit his friends back at Iowa State College at Ames had bought for him nineteen years before! He'd had to patch it at the elbows, but this did not worry George. As far as he was concerned, the suit still had a lot of life left in it. George always wore a brightly colored tie with his aging suit. All the other staff wore plain black ties, but George had a special reason for being different. The ties he wore were all handmade and hand-dyed by him. He felt

that wearing them would remind his students of the many natural dyes that could be found all around them.

Although George dressed a little oddly, no one doubted that he was getting the job done at Tuskegee. Once people got to know him, they came to respect him, even white people. The Tuskegee Farmer's Institute continued to grow, and by 1910 the agricultural fair it held once a year was attracting thousands of farmers. White farmers began to compare their smaller fair to the Tuskegee Fair and came to the conclusion that the Tuskegee Fair was much more interesting and informative than theirs. They decided to do something about it. In 1911 the Macon County Fair Association was formed, surprisingly made up of both black and white farmers. The idea behind the new association was to combine the two fairs into one big event.

George was excited about this. It was exactly what he and Booker T. Washington had worked so hard to achieve: black and white people working side by side to get the best results. It was not a perfect arrangement, however. The white farmers insisted that they have separate ticket booths and turnstiles and that black exhibits be on the west side of the fair, while white exhibits were on the east side. Different bathroom and eating facilities also had to be provided. Still, George and Booker T. Washington and his supporters saw the combined fair as progress. It demonstrated to them that once black people were educated they would find their way into "white circles" and would eventually be treated as equals.

That was one view. The opposite view was that black people needed to push for all their rights, and then they would be free to get the education they needed to become equal with white people. As the twentieth century unfolded, the Jim Crow laws continued to strip away from blacks the rights they had been granted at the end of the Civil War. The Jim Crow laws had been put in place supposedly to keep black and white people separate, but in fact they were systematically used to put black people at a disadvantage. Under the Jim Crow laws, blacks and whites could not live in the same neighborhoods, eat at the same restaurants, use the same bathrooms, waiting rooms, railcars, and libraries, or even swear on the same Bible when giving testimony in court. Black areas were in much poorer condition than white areas, and without power, money, or education, former slaves and their descendants had few opportunities to improve their living and working conditions.

When President Woodrow Wilson took office in 1913, he extended the Jim Crow laws to federal government buildings, ordering that they be segregated.

The desks of black employees were grouped together and curtained off from their white coworkers, and separate bathrooms and cafeterias sprang up all over Washington, D.C.

Voting rights for blacks were stripped away under the Jim Crow laws. In many Southern states, only people who owned property or paid a poll tax were able to vote. Voters also had to be literate and able to explain a section of the Constitution. Of course, the examiners were all white men, and they never allowed a black man to pass the Constitution test. Many poor white farmers could not meet the standards to vote either, so a special clause was added to the law. It was called the "grandfather clause," and it stated that if a person could prove he had a grandfather who was able to vote, then he could vote as well, even if he did not meet all the other criteria. The grandfathers of black people had all been slaves who'd had no rights whatsoever.

Lynchings were becoming increasingly common, especially when black men were thought to have committed a crime or had "forgotten their place." Between 1900 and 1914, well over one thousand black men and boys were killed this way. Some of the lynchings were advertised ahead of time in local newspapers so that Southern white families could watch the lynching and have a picnic with friends and neighbors at the same time. One black man in Kentucky was even taken from the county jail and tied to a pole in a local theater packed with white people. People in the audience bought tickets to take a turn shooting at the man while the others clapped and cheered until the victim bled to death.

Booker T. Washington and his supporters were aware of these realities, but they chose to believe that racial progress was being made slowly and surely. Other black people did not agree with this approach. They had met in a conference at Niagara Falls, Canada, in 1905 to call for equal voting rights and educational opportunities for blacks and an end to racial discrimination in the United States. In 1910 this movement developed into a new group, the National Association for the Advancement of Colored People, NAACP for short, with a gifted black man named William Edward Burghardt (W.E.B.) Du Bois as its leader.

Booker T. Washington had been the most influential and well-known black man in America until the NAACP began to gather strength. W.E.B. Du Bois was a brilliant man with a doctorate from Harvard University and a professorship in Greek and Latin. He began to take some of the focus off Washington. Indeed, Du Bois took every opportunity he could to argue against Washington's ideas. Washington thought that poor blacks should be given a practical education they

could use to help keep them and their families from starving, while Du Bois had much grander ideas. He suggested that black people should be educated in music, art, English, and philosophy. Washington argued that white people would come to accept black people when they saw how useful they were, while Du Bois thought that black people should fight for their rights with every ounce of energy they had. Soon the NAACP was lobbying Congress for changes in the law, arranging protests, and preaching its message of racial equality through its newspaper the *Crisis*.

George could see both sides of the debate, and while he agreed with Booker T. Washington, he did not want to make an enemy of W.E.B. Du Bois. George believed that every man had to follow his own conscience, and no one could say that George Washington Carver was not helping white people to accept and respect him as a black scientist. In fact, Booker T. Washington often referred to George as an example of a success story. He constantly spoke of George in his speeches, saying, “I have always said that the best means of destroying racial prejudice is to make oneself a useful and, if possible, an indispensable member of the community in which he lives. I do not know of a better illustration of this than may be found in the case of Professor Carver.”

The battle for the hearts and minds of black people continued, with George caught in the middle, until November 14, 1915. That day Booker T. Washington died after a short illness. He was fifty-nine years old.

Washington’s funeral was a huge affair, with important men arriving from all over the United States to attend. Former President Theodore Roosevelt came and insisted on reading the eulogy.

After the funeral, Theodore Roosevelt sought out George, and the two men walked together around the experimental farm. The former president asked George many questions about what he was doing and encouraged him to continue the work Booker T. Washington had begun. As they shook hands and parted, Theodore Roosevelt said, “I think that you do things much as I do, although that may not be a credit to you. You study first, then come to a decision, and then stick to that decision.” He smiled and then added, “There is no more important work than what you are doing.”

George was greatly encouraged by the former president’s words. They had come at a very important time. George was finding it hard to deal with Booker T. Washington’s death. Despite the fact that the two men did not always agree on issues, they had labored together for nearly twenty years to build Tuskegee Institute.

The Booker T. Washington Memorial Fund was soon set up. George donated half of his thousand-dollar-a-year salary to it. Five hundred dollars was a lot of money, but George found that his yearly salary was much higher than what he needed to live on. His needs were very simple, since he still lived in the dorm with the students and ate his meals in the cafeteria. As well as giving about twenty percent of what he earned to his church and other charitable causes, he was able to privately help many students who were struggling to buy textbooks or pay their school fees.

It wasn't always easy, but George continued on as best he could without his old friend Booker T. Washington around. Before long, however, George found his attention, like that of the rest of America, diverted to the war raging on the other side of the Atlantic Ocean in Europe. The Allied Forces—England, France, and Russia—were at war with Germany, the Austro-Hungarian Empire, and Italy. The United States had a policy of staying neutral in other countries' wars, but it was slowly becoming obvious that the Allied Forces would not prevail without extra help. Then in early May 1915, the luxury liner *Lusitania* set sail from New York, bound for Liverpool, England. On board were nearly two thousand passengers and crew. On May 7 the ship was stuck by a torpedo from a German U-boat and quickly sank. One hundred twenty-four Americans were drowned in the attack. The torpedoing of the *Lusitania* inflamed attitudes against Germany, and people began to call for the United States to get involved in the war. Finally, in January 1917, the Germans announced that, in violation of international law, their U-boats would launch attacks on all vessels, including those belonging to neutral countries like the United States. President Woodrow Wilson did not want to commit U.S. troops to the battle, but Germany's open defiance left him little choice. On April 6, 1917, the United States sided with the Allied Forces and declared war on Germany.

Despite having been a captain in the National Guard, George was now too old to enlist in the army and go and fight. He decided to do his best to help from his laboratory. At first he continued to experiment with new and better ways to use peanuts. He perfected a recipe for peanut milk. He combined just the right amounts of oils, fats, proteins, carbohydrates, and a little ash from the peanut, along with water, to make a drink that tasted very similar to cow's milk but was much more economical to produce. It took only three ounces of peanuts to make a whole pint. But there were other important areas beside peanuts where George needed to focus his attention to help the United States' war effort.

## *Chapter 13*



# New Discoveries

**A**niline dyes," George mumbled to himself as he drummed his long fingers on his old wooden desk. Aniline, a colorless, oily liquid made from nitrobenzene, was used as the base to make vibrant, colorfast dyes. Exactly how aniline was produced was a secret, a secret kept by the German government. Until the start of World War I, the aniline dyes used around the world for making printer's ink and dying leather and cloth were all supplied by Germany. Now Germany was the enemy and no longer supplying the dyes.

This situation left parts of American industry in a panic. Without aniline dyes, companies could not dye army uniforms, print newspapers, or paint ships and cars. While others were despairing over what to do, George was setting himself a goal. He would help out by discovering replacement dyes that could be made cheaply and easily in the United States with local ingredients. He had been dabbling with dyes since he was a small boy and longed to have his own set of paints. Now it was time for him to take a serious look at the whole dying process.

George's morning walks began to extend later into the day as he searched under logs and in swamps for anything that looked promising as a dye. There were a few nonaniline dyes around. One of the best was cochineal, which was made from the bodies of dried insects that fed on cactus plants in Mexico. Other

dyes were also made from plants and vegetables, but most of them did not produce the strong, vibrant colors that aniline dyes produced. George, though, believed he could make better plant and vegetable dyes that would be both colorfast and vibrant.

Over the course of about a month, George collected twenty-eight promising plant specimens. Then, as he had done with the peanuts, he locked himself in his laboratory and started to experiment. He chopped up the leaves, stems, and roots of the plants, looking for the dyes that gave them their unique colors.

When he emerged from his laboratory, George had developed an amazing 536 colors of dye. Immediately he wrote letters to various industrial leaders offering to share his newfound knowledge of dyes with them. It took only a few days before he received the first reply. A letter arrived from the president of a large dye-manufacturing company who was so impressed with George's accomplishment that he offered him a job on the spot. The letter promised George his own well-equipped laboratory, along with assistants to help and whatever salary he cared to name.

George was flattered by the offer. For a few brief moments he dreamed of himself in a new, fully equipped laboratory. But then he remembered his students and knew he would not leave Tuskegee for any amount of money. He wrote back to the president of the company declining the offer but giving him permission to use any of the new dye recipes he had discovered.

A second challenge George set for himself was finding the most economical way for the United States to send nutritious food to the troops fighting overseas. A lot of fresh food rotted before it got to its destination, and it was very bulky to ship. Indeed, the bulkiness of the food was the biggest problem. German U-boats targeted ships that ventured out into the Atlantic Ocean, and so the fewer ships that were dispatched the better.

It did not take George long to decide that dehydrated food was the best solution to the problem. Not only did dehydrated food keep indefinitely, but also it weighed little and did not need specific types of containers to be stored or transported in. As soon as the war began, glass and tin became scarce. Thus, canning large quantities of food was impractical. Not only that, but canning fruit required sugar, another product in short supply.

Of course, dehydrated food has been around almost as long as mankind itself. What George Carver attempted was to find efficient ways to mass-produce dehydrated vegetables and fruits. Once he had perfected the process and successfully dehydrated quantities of sweet potatoes, apples, strawberries, and

beans, he sent a memo to the war department, informing it of his experiments and recommending dehydration as the answer to the problem of supplying food to troops in the field.

George needed to solve another equally important problem, and this one was right at his back door. Many poor farmers, both black and white, had signed up to fight for the United States. Enlisting meant a steady paycheck to send home to their families and a chance to see the world. At first, everyone thought it was wonderful to have so many Southern volunteers, but then reality set in. Who was left to tend the farms and grow the food that Americans both at home and fighting overseas needed?

George began hammering his message of growing less cotton and more high-protein crops as never before. He had banners made up that read, “No hungry nation can protect its flag.” He often found himself talking to groups of wives and mothers who had taken over the farming duties but who knew little about farming. Times were difficult for many of these women, and George urged them to consider eating such weeds as clover, dandelions, chickweed, and chicory that grew on their farms. These plants tasted good when boiled with a little chopped meat or a ham bone, and they were filled with important vitamins and minerals.

Wheat was also in short supply in America, a situation that many people found difficult. Flour was made from wheat, and without flour there was no bread, a staple food in the diet of most families. Many scientists were working to find something other than wheat that could be ground into a flour good enough to make bread with, but nothing was proving suitable. That is, until George Carver began experimenting with his old favorite, the sweet potato.

Before he knew it, George was whisked off to Washington, D.C. to speak to a United States Department of Agriculture committee on the uses of his flour made from dehydrated sweet potatoes. The committee was chaired by David Fairchild, chief of the Bureau of Plant Industry, and comprised chemists, dieticians, and government bakers. They found it hard to believe George’s claims about sweet potato flour. This frustrated George. He could think of only one way to win them over. He took the entire committee to a local bakery, where he proceeded to make some bread using sweet potato flour. Soon the aroma of freshly baking bread filled the air. When the bread was baked, George pulled a loaf from the oven, sliced it, and gave it to the members of the committee to try. Once they had eaten a slice of the bread, there was no more argument. They all became enthusiastic about the new flour.

The next day the committee again met. During the proceedings, David Fairchild thumped the side of his fist on the table and declared, “We must do something now. We have fooled around long enough!”

And something was done. The committee resolved to set up an immense drier in the South so that sweet potatoes could be dried and turned into flour. As well, farmers throughout the South would be encouraged to switch to growing sweet potatoes to meet the expected demand for the crop.

Several reporters covered the meeting, and George soon found himself quoted in every major newspaper. He returned to Tuskegee pleased that he had done his part to help the war effort. Once home, he set about writing a new bulletin called *How to Make Sweet Potato Flour, Starch, Sugar, Bread and Mock Coconut*.

As George continued to encourage farmers to expand their sweet potato plots, another man was reading all about George’s accomplishments and was very impressed. The man was Thomas Edison, by now America’s most famous inventor. He had a magnificently equipped laboratory, and he offered it to George, along with a huge salary, if George would work for him. George refused to tell anyone exactly how much money Thomas Edison had offered him as a salary, but rumors abounded. A *Reader’s Digest* article stated it was $100,000, while *Ripley’s Believe It or Not* reported the amount to be $200,000. Either way, it would have been one hundred or two hundred times George’s current salary. Yet once again, George Washington Carver chose to stay at Tuskegee Institute, living in his two dormitory rooms in Rockefeller Hall and eating cafeteria food.

As always, George continued to get his pleasure from simple things, such as dedicating a monument in Enterprise, Alabama. One side of the monument had a strange inscription on it: “In profound appreciation of the boll weevil and what it has done. As the herald of prosperity, this monument was erected by the citizens of Enterprise, Coffee County, Alabama.”

Dedicating the monument was particularly satisfying to George. Coffee County had been one of the last counties in Alabama to encourage its farmers to switch from growing cotton to growing peanuts. The boll weevil had devastated most of the cotton crop, and by 1915, most farmers in the county were on the edge of bankruptcy. Only then did they remember George’s advice and follow it wholeheartedly. Four years later, Coffee County was one of the most prosperous in the whole state. It had even raised enough money to build a twenty-five-thousand-dollar peanut-shelling plant. Initially the boll weevil had been a curse, but now the citizens saw it as a blessing. It had cut their dependence on cotton

once and for all and allowed the people to grow more profitable crops. Hence, the monument and the invitation to George to dedicate it.

World War I ended in November 1918. As the decade of the 1920s opened, George found himself labeled “Mr. Peanut Man.” Whenever an important “peanut” event took place in the South, George was the person the organizers wanted to speak at it. Peanut production in the South now brought in eighty million dollars a year. George knew this was only the beginning; a lot more could be done with peanuts. To speed this along, Southern businessmen set up an organization called the United Peanut Growers Association, whose aim was to develop the American market for peanuts.

One problem needed immediate attention. Before farmers in the South began growing peanuts commercially, almost all of the peanuts consumed in North America were grown in China and shelled in Japan. Because of the much cheaper labor costs in Asia, these peanuts were produced very cheaply. As a result, Asian peanuts cost less to buy in the United States than those grown in the South. The Southern farmers wanted to extend their market in the United States, but since they could not sell peanuts any more cheaply and still make a profit, their only option was to ask Congress to put a tax on imported peanuts. The United Peanut Grower’s Association called a meeting in Atlanta, Georgia, to discuss the situation. George was invited to address this gathering of growers, businessmen, and local politicians.

Fifty-five-year-old George Washington Carver arrived in Atlanta on a hot summer’s day. He picked up his heavy suitcases filled with samples he wanted to show to the members of the association and caught a streetcar to City Hall, where the meeting was being held.

As he trudged up the steps to City Hall, George thought about what he was going to show the attendees first. Should it be his newest form of peanut milk? Or the “concrete” paving blocks he had made from peanut shells? He nodded absent-mindedly at the doorman as he reached the top step.

“Not so fast. Where do you think you are going?”

The doorman’s gruff voice startled George. “I hope I’m in the right place,” George replied politely. “This is where the United Peanut Growers Association is having its meeting, isn’t it?”

“What’s that to you?” the doorman snarled, calling George a horrible name as well.

George’s mouth went dry, and his stomach began to churn. It was the same feeling he had experienced seeing the lynching back in Fort Scott, Kansas. He

looked around to see if he recognized anyone else going into the meeting, knowing that it could be dangerous to challenge this man without a witness nearby. George could not see a single person he knew, and his heart sank.

"Go on, get out of here!" the doorman growled, kicking George's suitcase. "We don't need the likes of you in this place."

George would have quite happily turned around and gone back to Tuskegee, except for one thing: The conference delegates needed to hear what he had to say. Together they had to figure out how to get Congress to put a tariff on imported peanuts. The economic future of thousands of poor Southern farmers depended on it.

"I have an invitation," George said, pulling it from his suit coat pocket. "Please take it inside and find out if I am supposed to be here."

"Ha," the doorman snapped, snatching the invitation from George's hand and stomping off.

George stood and waited in the blazing sun. Eventually, the doorman returned and handed the invitation back to George. "Go around the back," he said. "There's a service elevator you can take to the second floor. That's where the meeting is. Apparently they are waiting for you."

George turned and walked down the steps. He wished with all his heart that life did not have to be this way. He longed for people to look beyond the color of a person's skin. But if anything, racial tensions in the South were higher now than they had been at any time since the Civil War. This was partly because so many black soldiers had gone off to Europe to fight for freedom and democracy. Now they were back and demanding freedom and democracy at home. Many white people were scared of giving black people any political power, and the call for more freedom and democracy was met with a wave of violence that rolled across the South. In fact, the summer of 1919 was dubbed the "Red Summer" because so much blood flowed. More than seventy black men were lynched, many of them honorably discharged soldiers still wearing their uniform. As well, twenty-five angry race riots broke out in various towns and cities.

"Professor Carver, welcome to the conference," came a friendly voice as George stepped into the meeting room.

George smiled and took his place on the stage. He was glad to be among friends again.

When his time came to speak, George clicked open the latches on his suitcases and laid out on the table an amazing array of products made from peanuts. There were products to drink such as coffee, fruit punch, and buttermilk

substitutes and things to eat, such as breakfast cereals and health bars. As well, there were stains and dyes, paving stones, and synthetic rubber, all made from peanuts.

By the end of his talk, George noticed that everyone in the room was sitting on the edge of his seat waiting for the next product to be introduced. This was exactly what George enjoyed the most—opening people's eyes to the possibilities presented by something as simple as a peanut. When the speech was over, many people came over to introduce themselves to George, including a senator from Alabama who was sitting in on the meeting.

Later, when George returned to Tuskegee, he read about his speech in a magazine called *The Peanut Promoter*. He smiled at what he read. "Coming before the convention with doubts lingering in the minds of the audience as to… having one of the Negro race come before them, [Carver] soon had their minds off that thought and closely following every statement made giving the results of his experiments with peanuts. After he had concluded [the delegates] forgot he was of the Negro race and were loud in their approval."

George had no idea of exactly how much impact he'd had on the group. Without his knowing, the group had voted George as their spokesperson and set up an appointment for him to speak to the United States Congress. His job was to convince the Congress to put tariffs on imported peanuts. However, it would not be an easy job. The Congress was now controlled by the Republican party and was not sympathetic to the plight of poor black farmers. It was a daunting task that George had been handed, and he began planning immediately.

## *Chapter 14*



# Heartened by the Response

**O**n the morning of January 21, 1921, George Washington Carver sat quietly in a chair outside the hearing room of the Ways and Means Committee of the United States House of Representatives. Several people who passed George seated there stared openly at him, no doubt surprised to see a black man waiting to testify before the committee.

Finally, more than an hour behind schedule, George was called before the committee. He picked up the huge suitcase filled with samples, which he referred to as his Pandora's Box, and made his way into the room. As he entered, George heard snickers arising from people seated at the back of the room.

George smiled to himself. He knew he did not look very impressive on the outside. He was stooped over now, his hair was now completely gray, and he was still wearing the suit his friends had given him back in Ames, Iowa, thirty years before. The suit was clean and freshly pressed, although George had patched the elbows and mended a few other rips. He also wore a weed in his lapel, one he had found growing through a steam vent by the Capitol steps. But appearances did not worry George, who knew that if he could make the committee members understand the importance of the peanut to Southern farmers, they would vote for a tariff on foreign peanuts.

George stood at the front of the richly wood-paneled room and waited to be

introduced. The chairman, Representative Joseph Fordney, nodded at George. “The committee calls Professor George Washington Carver,” he announced, and then looking at George, he said, “All right, Mr. Carver, we will give you ten minutes.”

The chairman’s voice was flat and toneless. George knew he had work to do to convince these powerful white men to listen and to change their minds. As he balanced his suitcase on a chair and opened it, he said, “Mr. Chairman, I have been asked by the United Peanut Growers Association to tell you something about the potential of the peanut.”

As he spoke, George began pulling bottles and boxes from the suitcase and lining them up along the front of the cherrywood table in front of him. He held up a jar of peanut flour and announced, “This crushed cake may be used in all sorts of combinations—for flours and meals and breakfast foods.”

It did not take long before George began to feel uneasy. Few of the congressmen on the committee were paying attention to what he was saying. George decided to talk about his favorite topic, the relationship between the peanut and the sweet potato and how when the two are served together they form a “perfect” meal. “From the sweet potato we get starches and carbohydrates, and from the peanut we get all the muscle-building properties.”

As George stopped to take a breath, Congressman John Tilson of Connecticut interrupted him. “Do you want a watermelon to go along with that?” he asked.

The room fell silent. George fought to stay focused. The congressman had just deliberately insulted him. Watermelon was a term often used by whites for poor, illiterate ex-slaves, people who supposedly had no idea how to better their lot in life. George took another deep breath and went on. His mission before the Ways and Means Committee was far too important to be ruined by one rude congressman. Yet George felt he had to reply to the taunt.

“Well, you do not have to have it. Of course, if you want a dessert, that comes in very well, but you know we can get along pretty well without dessert. The recent war has taught us that.” The committee laughed, and then matter-of-factly George got back to the topic at hand. “Here is the original salted peanut…” he went on.

George proceeded to introduce the men to an amazing array of peanut products, from candies to pigeon food to a medicine that mimicked quinine. By the time ten minutes was up, every person in the room, including Congressman Tilson, was listening intently to what George had to say.

“We will give you more time, Mr. Carver,” announced the committee chairman.

“Yes,” agreed one of the other congressmen. “I think this is very interesting. Indeed, his time should be extended.”

And extended it was. George demonstrated to the committee members for an hour and forty-five minutes all that could be done with the peanut. No one else interrupted him, and when he was finally finished, the entire committee applauded and cheered him. This was practically unheard of in a normal hearing, but the Wizard of Tuskegee had captured their interest and imagination.

Committee chairman Joseph Fordney smiled and turned to George. “I wish to compliment you, sir, on the way you have handled your subject,” he said.

George packed his samples back into his suitcase, thanked the committee for listening to him, and returned to Tuskegee to await news about the outcome of his mission. He did not have to wait long. Before the week was out, the Ways and Means Committee had placed a large tariff on Asian peanuts: three cents a pound for unshelled peanuts and four cents a pound for shelled ones.

News of George’s victory quickly spread throughout the South. Some who had questioned whether a black man could adequately represent a cause in Washington, D.C. sent letters of congratulations. Obviously, they wrote, a man like George Carver was able to cross the color barrier and earn the respect of both black and white people, educated and illiterate.

The success of his trip to the U.S. Capitol nudged George even further into the public’s eye. By now he was becoming a well-known figure across America. In 1923 the NAACP awarded George the prestigious Spingarn Medal. This medal was awarded every year to the person who had done the most to advance the cause of black people. Those who had received the medal in the past included Mary Talbert, the famous women’s rights advocate; Colonel Charles Young, the highest-ranking black officer during World War I; and Harry Burleigh, a gifted musical composer and arranger.

George was deeply honored to receive the award, which was presented to him by the attorney general of Kansas. Although being awarded any medal would have delighted George, he was particularly pleased to receive the Spingarn Medal from the NAACP. The faculty at Tuskegee Institute had not always enjoyed a good relationship with the NAACP, and George saw the medal as a symbol of goodwill toward him and others who had supported the ideas of Booker T. Washington.

Being awarded the medal, along with his success before the congressional

committee, opened even more doors for George. During World War I, a new organization called the Commission on Interracial Cooperation, or CIC for short, had sprung up. Its aim was to encourage blacks and whites to listen to each other. At about the same time, the Young Men's Christian Association (YMCA) was looking for ways to encourage racial equality in the South. The two groups saw that they could work together to make both of their goals a reality. The CIC had educated black people who were willing to talk about their concerns, and the YMCA had access to thousands of white students across the South who were interested in learning more about racial equality.

The CIC leadership soon realized that George Carver would be an ideal person to send out to talk to all-white student groups. George was interesting to listen to, unfailingly polite, and yet challenging at the same time. George eagerly agreed to be the keynote speaker in Blue Ridge, North Carolina, where a YMCA/CIC summer camp was being held.

Ironically, George discovered that he knew the camp director, Willis Weatherford. The two had met thirty years before at the National Students Summer School at Lake Geneva, Wisconsin, in 1893. Willis was a little embarrassed to see George again, because he had been the loud young man who complained about a black person being a student delegate at the summer school. Now his views had changed completely, and he quickly apologized to George for his past rudeness.

Some other things, however, had not changed. It was still not acceptable for black and white people to stay in the same accommodations. George was given a comfortable cabin away from the students. He did not mind this too much, as long as he believed his presence would eventually lead to the breakdown of such rules.

George used his typical style to win over the young men at the camp. He did not talk about race relations at all. Instead, he concentrated on helping the students appreciate the wonders of creation all around them. Of course, while the men were listening to him talk, George hoped they would note that it was a black professor who was sharing this information with them. As always, he tried to inspire the young men to get outside and study nature. He told them, "Nature and its varied forms are little windows through which God permits me to commune with Him and to see much of His glory, majesty, and power by simply lifting the curtain and looking in."

The students were very impressed with George's talk. Some of them even came up afterward to shake his hand. George took this as a sign of success. He

knew this was the first time many of them had ever reached out to shake the hand of a black person, since a handshake was considered a symbol of respect.

One of the students who came to shake George's hand that first day was Jim Hardwick. Jim was a student athlete who was training to be a member of the YMCA staff. George had noticed him in the audience. Jim had listened attentively to everything that George said. George and Jim immediately liked each other. Indeed, George invited Jim to be one of "his boys," a term George used for about a hundred young men who had passed through Tuskegee Institute. These young men had been in his classes, attended his Bible study, and kept in touch with their old teacher by letter and through occasional visits back to the institute. Many of the young men were now married, and George had lost count of the number of baby boys who had been named after him. Jim Hardwick was the first white boy that George had offered to take under his wing. Jim was delighted by the offer, and the two men began a long friendship based on letter writing and occasional visits to Tuskegee.

Another young man from the camp dared to visit George at Tuskegee against his father's wishes and was cut off from the family. This saddened George. Racial progress seemed so slow in coming, and for every step forward, something happened to push the cause back.

Soon after George got back from the YMCA camp, another such incident occurred right on George's doorstep, and he could not ignore it. The incident had to do with a new hospital being built in Tuskegee for black veterans of World War I. The hospital was being built because there were too many difficulties involved in trying to have black and white veterans in the same hospital. But this approach outraged many blacks, who argued that if it was good enough for blacks and whites to fight side by side, then it was good enough for them to recuperate side by side.

Nonetheless, a veterans hospital was built in Tuskegee. When it was finished, huge arguments erupted over who should staff it. The NAACP and other black organizations lobbied President Warren G. Harding to hire black doctors and nurses at the hospital, since all the patients were going to be black. However, many white people in and around Tuskegee were still afraid to give blacks more power and argued just as hard that white doctors and nurses should staff the hospital. In the end, the government declared that white people, apart from one exception, would staff the hospital. It was this exception that made black people in Tuskegee even more furious.

Alabama law forbade white nurses to touch black patients, so even though

white nurses staffed the hospital, a black maid was hired to assist each white nurse. This meant that it was the maids who really did all the nursing work in the hospital while the white nurses gave orders and sat around gossiping. Of course, the nurses were well paid, while the black maids received a pittance for their effort.

Soon Tuskegee was in an uproar. Robert Moton, Booker T. Washington's successor as president of Tuskegee Institute, and the NAACP put pressure on President Harding to change the rules. Eventually the president agreed, and in July 1923, the first black administrator was assigned to the Tuskegee veterans hospital.

As soon as news of this turn of events was made public, the Ku Klux Klan declared it would lynch any black person who dared to take up a professional position at the hospital. This outraged the black community in Alabama, and they soon organized a march and rally at the hospital in Tuskegee to protest the Ku Klux Klan's intimidation of the new hospital administrator.

The looming clash of these two groups greatly troubled George, who hated to see racial conflict like this and who had friends on both sides of the fight. Indeed, some of his white friends urged George to go to Atlanta until everything quieted down. But George decided to stay and fight for justice, even if it meant standing against people whose respect he had worked so hard to gain.

Apprehension ran high on the day of the march. Black people could not hope for justice from a white jury if anything went wrong. At the hospital, they stood shoulder to shoulder along the property line, singing gospel songs. Soon hooded Klansmen marched over the hill and descended on them. They came within feet of the property, yelling curses and threatening the assembled crowd, but they did not cross onto the hospital grounds. After a long standoff, the Ku Klux Klan retreated. George breathed a sigh of relief. No blood had been shed. However, the new administrator was not willing to be the lone black manager at the hospital, and he fled for fear of his life.

It was a long struggle that would take another year, but eventually the veterans hospital in Tuskegee was transferred over to a black staff. Now instead of black maids doing all the work, there were well-trained black nurses who were getting paid a fair wage for their labor.

George was pleased to have been a part of the Tuskegee standoff. He was willing to allow white people to have their way if he felt that time and effort would change their opinions. But he had no patience when he saw black people being exploited.

That summer George was invited back to Blue Ridge, where many YMCA students were waiting eagerly to hear him. One of the students, Howard Kester, even invited George to share a cottage with him and two dozen other young men. George was delighted to do so, and one more barrier was broken down. During his week at the camp, George was busy from four in the morning until midnight. An assistant helped arrange appointments with the hundreds of boys who each wanted to spend fifteen minutes with the aging botany professor. George was heartened by the response.

Jim Hardwick was at the camp again, along with many other students who now wanted the honor of being one of George's "boys." Within days of returning to Tuskegee, George had received letters from forty of the boys from the YMCA camp. Of course, he personally replied to each letter. As a result of his efforts, George was receiving many invitations to speak at various white-only colleges around the country. He looked forward to accepting as many of the invitations as possible.

## *Chapter 15*



# A Most Influential Scientist

**G**eorge sat at his desk, tears brimming in his eyes. In front of him was a letter from Simpson College, the first college he had attended, and where he'd spent a very happy year studying painting under Miss Budd. It all seemed so long ago now, over thirty-seven years, in fact. George was now sixty-four years old. Any letter from Simpson College would have been welcome, but George was particularly pleased to receive this one. It announced that the college had selected him to be awarded an honorary doctorate degree.

Now George could freely use the title "Doctor," which his students had tacked onto his name many years before. Being called a doctor when he wasn't one had always seemed a little awkward to George, but now he was really going to become one!

George was excited about returning to Simpson College to receive his degree. However, three days before he was due to travel there, he took a shortcut through a pasture. This particular pasture was inhabited by a lone bull, which George soon discovered had a bad temper. The bull charged, and George sprinted for the nearest fence. He was halfway over it when the beast caught up with him and gored his leg. It was not a life-threatening injury, but it was enough to keep George from traveling to claim his honorary degree in person.

Some of the people at Tuskegee thought the incident with the bull might

curb George's early morning rambles through the countryside. But two weeks later, George was back out in the predawn mist, gathering samples to bring back to his laboratory for further study.

Two years later, in 1931, George received another honor. This time two bronze busts of him were commissioned by the Tom Huston Company, which manufactured peanut products. One of the busts was to be displayed at company headquarters in Columbus, Georgia, while the other was to be donated to Tuskegee Institute.

Bob Barry, the company spokesperson, went to Tuskegee to unveil the bronze statue. Looking around at the eager faces of so many young black men and women he said, "I see many young people here today. Do you, whom [George Carver] can help so much, really know him as he is? If you live beside a mountain and see it every day, it does not seem high to you; but someone who does not see it often knows that it is high." Barry was of course referring to the fact that although George still lived in the college dormitory and ate simple meals with the students in the cafeteria, he was known around the world.

George's fame continued to grow, especially after the Great Depression descended on the United States in the early 1930s. It was aptly named the Great Depression, because many people did become depressed as they lost their jobs, their farms, and their life savings. The Great Depression was triggered by a stock market crash in October 1929, which soon led to turmoil across the country. By 1932 one quarter of the labor force, a total of over fifteen million people, had lost their jobs. Those who didn't lose their jobs had their wages cut in half. As well, hundreds of banks failed, and the prices for agricultural products dropped to their lowest level since the Civil War.

Suddenly, the government was looking for ways to help small farmers become self-sufficient so that they could keep their families from starving during such difficult economic times. Many people sought out George Carver to ask his advice on how to do this, and soon George was once again cranking out bulletins on edible weeds and how to raise poultry. He also began reprinting thousands of copies of his old bulletins and giving them out wherever he went.

By this time George was sixty-eight years old, and he could not travel to give on-the-spot advice to as many people as he would have liked. Still, letters poured in asking for his advice. Most days he received about fifty letters, all of them opened and read by George himself. Most of the letters were from desperate farmers wanting to know what were the best crops for them to grow or where and how to get their hands on cheap seed.

Occasionally, a letter arrived from further afield. One official letter came from the government of the Soviet Union asking George to visit the country and help reform their agricultural system. Another letter arrived from a pineapple grower in Hawaii who was having difficulty with ants infesting the crop. The grower offered to pay George's way if he would come to Hawaii and help get rid of the ants.

Along with the Great Depression came another problem that George tried his best to solve. It was the problem of poliomyelitis, a terrible and mysterious disease. No one knew how a person caught polio, as it was commonly referred to, or how to cure it. It was mainly children who caught the disease, and it began with flulike symptoms that soon got worse until the person's neck, back, and legs were unbearably painful and stiff. The lucky children recovered from polio with just withered legs, while the unlucky ones were permanently paralyzed or died. Some adults, though not many, also caught the disease.

Many parents were desperate to find a cure for their sick children, and George Carver, along with hundreds of other professionals, experimented with various ideas for cures. On December 31, 1932, a story ran in many of the national newspapers that told of how a black chemist in Tuskegee, Alabama, had massaged peanut oil into the withered leg of a teenage polio victim. The boy's leg had become stronger, and the boy was even able to walk on it again.

All of this was true, but George, the black chemist of the story, had never claimed that peanut oil alone cured polio. He was also a good masseur and suspected that it was the combination of massage and the oil that helped the polio victim recuperate. Regrettably, this fact was lost on many of the desperate readers of the article, and George found himself inundated with letters. In January alone he logged over two thousand letters, telegrams, and telephone calls. Patients themselves then began arriving in Tuskegee, eager for Dr. Carver to "cure" them, too! George did the best he could, massaging young patients' limbs himself and teaching parents how to do it as well. In many cases, the children did get better, though no one could say whether it was a result of peanut oil, massage, the passage of time, or a combination of all three. Still, people kept coming, until eventually the U.S. government granted Tuskegee Institute $161,250 for a clinic to treat children crippled by polio. George continued his massage work at the clinic under the watchful eye of a medical doctor.

In 1935 Fredrick Patterson was appointed the new president of Tuskegee Institute. His first challenge was to find ways to keep the institute afloat financially during the difficult economic times. Fredrick Patterson soon realized

that such a loyal and famous professor as George Washington Carver provided the school's best chance for publicity and fund raising. He encouraged George to take on even more travel and speaking engagements. Fredrick Patterson also approached the General Board of Education and asked it to fund an assistant for George. After all, he pointed out, George was now seventy-one years old, and his health wasn't as good as it used to be.

The money was released by the board, and Austin Curtis Jr. became George's constant companion and helper. Austin was a young black chemist who had graduated from Cornell University and had taught at North Carolina Agricultural and Technical College. The two men got along well from the start, and George learned to rely on Austin for everything from planning his itinerary to helping design experiments to make low-cost paint from waste sludge.

The following year, 1936, was an exciting year for George. First, Metro-Goldwyn-Mayer released a movie about his life, entitled *The Story of Doctor Carver*. The movie was an instant success, partly because the depression still lingered. The American people needed to believe that with determination and effort a person could raise himself or herself up from poverty. Someone like George, who had begun life as a sickly, orphaned slave child, fit the bill well. If he could make it, people were encouraged that when the Great Depression was over, they too could climb out of their difficult circumstances.

The second exciting event of 1936 was the fortieth anniversary of George's arrival at Tuskegee Institute. It seemed almost impossible for George to believe he had been there that long. A large celebration was held at the institute in honor of George, and letters of congratulations poured in from around the world. One particularly meaningful letter to George came from Henry A. Wallace, the little boy George had allowed to accompany him on his early-morning walks back when he was attending Iowa State College. Henry Wallace was grown up and now served as President Franklin D. Roosevelt's Secretary of Agriculture. Henry Wallace wrote, "Your faith in human nature, your ability to see the good about you and to lend a directing hand to talent where it needs stimulating, are at the very basis of your life's work."

Reporters from *Time* and *Life* magazines, as well as many from newspapers and radio stations, came to Tuskegee to cover the event. Everyone wanted to know about George's life—how he had managed to get an education, whether he had any family of his own, why he had come to Tuskegee, and what he remembered about working with Booker T. Washington. All of these questions gave George an idea, which he shared with the president of Tuskegee Institute.

George wanted to create a museum that would answer all the questions people had about his life. The museum could also show how farmers could improve their lot in life by learning to use what they had available to them. It was the same theme George had been preaching now for over forty years.

Fredrick Patterson was enthusiastic about the idea and suggested that the old Tuskegee Institute laundry would be a perfect place to transform into such a museum. Nothing could have been more fitting to George than that. After all, George had paid for much of his elementary, high school, and university education washing other people's laundry. He immediately set to work designing a new interior for the building.

While George was working on designing the new museum, he tried not to accept many speaking engagements. These engagements took up a lot of time and were exhausting for him. This was partly because of the Jim Crow laws, which were still in full force throughout the South. Black and white people were supposed to be supplied "separate but equal" accommodations and public transportation. But that was only in theory. In reality, white people always had the best, while black people struggled under inferior conditions. This affected George because he was unable to secure good sleeping arrangements on trains. Only white patrons were allowed to book sleeping cars, while black people had to make do with sleeping upright on hard wooden benches. At seventy-two years of age, George found the strain of sleeping like this difficult. There were many times when he chose to travel by private motor car instead. But even that took a lot of planning and scheming. There were only limited places along the way where a black person could stop for a meal or a bathroom break.

George did make the effort to attend the Chemurgy Conference in Dearborn, Michigan. Chemurgy was heralded as the "new" science of the 1930s. In fact, it was something George had been exploring nearly all his professional life. Chemurgy was the study of how to put chemistry to work for the good of the farmer. Henry Ford, one of America's wealthiest and most famous inventors, was particularly interested in the subject himself. He gathered together many top agricultural scientists and industrial researchers to discuss how to make agriculture more scientific and find ways to use farm products in the production of automobiles.

George's time at the conference in Dearborn was one of the most fulfilling experiences of his life. He joked that he loved listening to people introduce him because it was a good opportunity to learn something about himself that he had never known before!

Joking aside, George was happy that at long last his message was beginning to spread. All farmers could do much better for themselves if they only listened to scientific advice. But George did not come to the conference simply to listen to other people's ideas. He was one of the main speakers at the event. And as usual, he was the most popular speaker, mainly because he was able to say things in ways everyone could easily understand.

Henry Ford sat in on one of George's lectures. He was so impressed at what he heard that he went to the Dearborn Inn to visit George later that evening. George was astonished to open his door and find one of the most influential men in the world standing in the rain waiting to be invited inside. The two men spent an hour together talking about everything from sweet potato rubber to ways to make fuel from corn. By the time Henry Ford got up to leave, the two men had become friends who respected each other's talents and abilities.

Later that month, a major newspaper interviewed Henry Ford. During the interview he was asked who he considered to be the most influential scientists of the twentieth century. Ford replied, "Thomas Edison, Luther Burbank, John Burroughs, and George Washington Carver."

Henry Ford kept a plantation home in Ways, Georgia, which he retreated to in winter. He invited George and his assistant to visit him there. George eagerly accepted the invitation. At the conference in Dearborn, he and Henry had only just begun to scratch the surface of some of the ideas they could work on together. George added Henry Ford to the long list of people he wrote to regularly, and the two men looked forward to getting together again during the winter months.

## *Chapter 16*



# A Blazer of Various Trails

In the spring of 1938 George was forced to admit that his body was beginning to fail him. He felt sick and weak most of the time and eventually allowed himself to be admitted to Tuskegee Hospital for tests. He was diagnosed with pernicious anemia, an often fatal disease. However, George was not yet ready to leave his work behind. He agreed to try a new treatment for the illness: vitamin $B_{12}$ shots. Recovery was slow for George, but eventually he felt well enough to leave the hospital for short periods.

Fredrick Patterson, president of Tuskegee Institute, arranged for George to move into Dorothy Hall, the institute's two-story guesthouse, where George could get the rest he needed. As soon as Henry Ford heard that George was recuperating there, he sent some of his men to install an elevator in the building, since George was confined to a wheelchair for the time being.

During his illness, George had many hours to reflect on his life. He told one reporter of the conclusion he had come to: "I am not a finisher; I am a blazer of various trails. Little of my work is in books. Others must take up the various trails of truth and carry them on."

The more he thought about it, the more George knew that his last gift to the world would be to make a way for other young black men and women to carry on the work he had begun. To help him do this, he established the George

Washington Carver Foundation and deposited $32,374.19 of his own money into the new organization's bank account. This was a lot of money, considering that George had earned only $47,000 during his entire tenure at Tuskegee Institute and he had never allowed anyone to pay him for his other services. Whether it was massaging the withered leg of a toddler with polio or advising a million-dollar corporation on more efficient ways to process peanuts, George never took any money for his efforts. Instead, he would suggest that the recipient of his labor make a donation to the institute.

As news of George's donation became public, many people wondered how he had come to have so much money. The answer was simple: George spent very little money on himself. He liked to make just about everything he wore, just as Susan Carver had taught him. He gave generously to his church and to those in need and saved the rest in a bank account, where interest had caused the money to grow substantially over the many years it was deposited there.

George decided that one of the best ways his new foundation could use some of the money would be to make the museum into more than just a place where people could come and see what had been done in the past. He decided to attach a modern research laboratory to the museum so that black scientists could work on their ideas and research projects. The old laundry building that would house the museum was a rather grand red brick structure with five huge arches in the front. The basement of the building was converted into a laboratory, offices, and storage space. The other floors housed George's extensive collections of specimens along with documents and photographs and displays depicting his life's work.

One room especially delighted George: the art gallery where all the paintings he had produced throughout his lifetime were displayed. George could not bear to part with any of his paintings, and so he had kept them all. Most had been stored under his bed or at the back of his closet for many years. But now they were framed and properly displayed. In all there were seventy-one paintings, twenty-seven of them dating back over fifty years to his time at Simpson College. George even made some of the frames for the paintings himself. The frames were a work of art in their own right. One frame consisted of over one thousand tiny pieces of wood woven together without nails or glue.

Beneath the paintings were tables displaying George's other handcrafts. There was everything from his chicken-feather broaches to colored peanut necklaces, hand-dyed ties, and delicately crocheted laces.

The opening of the museum was just as George wanted it to be. Thousands

of his friends and acquaintances came, and George stood at the door personally greeting each one. His health was still fragile, but he had defied all expectations and was now out of his wheelchair and able to walk short distances unaided.

George marveled as the crowd streamed by. There were workmen, still wearing their carpenter's aprons, Southern belles in fur capes, young black farmers in patched bib overalls, farmer's wives carrying chubby-cheeked children, washerwomen, nurses, senators, and seed-manufacturing moguls. There was even an ex-Ku Klux Klansman. This man had come to ask for George's help when his son was stricken with polio. George had done his best to help the child, and the man had gone away with a respect for George that he would never have thought possible. Now the man was at the opening of a museum dedicated to the honor of a black man.

Everyone enjoyed the museum and art gallery, and from then on, a steady stream of people arrived at Tuskegee to visit them.

Once the museum and gallery were up and running, George designated the rest of the money in the foundation's coffers to be used for scholarships for promising black scientists. Looking back over his life, George remembered how close he had come to giving up. After Highland College rejected him, it had taken him five years to work up the courage and save the money needed to try college again. He got great joy from thinking that his foundation would allow those who followed him to walk an easier path.

As he entered his seventy-sixth year, George was overwhelmed with the attention he was receiving. In 1940 Henry Ford had dedicated an elementary school in George Washington Carver's name on his plantation in Ways, Georgia. George also received the Roosevelt Medal and membership to the New York Academy of Sciences. And in 1941 the University of Rochester had conferred an honorary doctorate on him. When he discovered that George was too weak to come to New York to receive the degree, Dr. Alan Valentine, president of the university, made the trip to Tuskegee to award it to him there. In a speech conferring the degree, Dr. Valentine stated that it was awarded because "you [George Carver] have opened doors of opportunity to those Americans who happen to be Negroes; because you have once again demonstrated that in human ability there is no color line; because you have helped thousands of men acquire new confidence and self-respect."

Nothing could have delighted George more than being singled out for those reasons. That, above all else, had been his life's goal.

Not too long after receiving the honorary degree, George felt strong enough

to accept an invitation to speak at a banquet in Atlantic City honoring him. He wore the same suit he'd had all his adult life, the one his fellow students had purchased for him back in Ames, Iowa, fifty years before. "There's plenty of wear left in it yet," he would say with a twinkle in his eye. "I'll think about buying a new one when this one gets out of date!" As always, George wore his trademark to the event: a freshly picked flower or a weed in his lapel.

The Atlantic City banquet was hosted by the Variety Club, an organization made up of entertainers. Even though George's research had been directed toward helping farmers and not entertainers, twelve hundred people turned out to hear him speak. When George finished speaking, the crowd gave him a thunderous standing ovation. George was humbled by this, and even more so when the president of the Variety Club presented him with a check for $1,000 for the George Washington Carver Foundation.

In 1942 Henry Ford erected the Carver memorial cabin at Greenfield Village in Dearborn, Michigan. He also set up a nutritional laboratory in George's name. As well, the Thomas A. Edison Institute made George a member.

Still, George's greatest joy was continuing his work at Tuskegee, puttering around in the museum, writing to and encouraging "his boys," and experimenting a little here and there.

Regrettably, his health continued to decline until in early December 1942, George fell while trying to open the door into the museum. He was immediately taken to the hospital, where it was found that he had broken no bones, even though he was bruised from head to toe. This time George's body did not rally. His foundation was in place, and his museum and art gallery were open to the public. His work was done. George lay in bed while a steady stream of visitors came to see him. Then, at 7:30 P.M. on January 5, 1943, George Washington Carver closed his eyes and drew his last breath.

No one knew the exact date, or even year, of George's birth. He had been just another slave child, and a sickly one at that. But there was no mistaking the day he died. News of his death circled the globe within hours. Condolences from heads of state to the poorest of sharecroppers began to pour in. Telegrams arrived in Tuskegee by the basket load, and secretaries worked around the clock sorting all the mail.

Many more people than could fit into the Tuskegee Institute chapel attended George's funeral service. Rich and poor, the famous and the unknown, black and white, all stood silently outside as the eulogy was read. George's body was

buried on the grounds of Tuskegee Institute next to the grave of his old friend Booker T. Washington.

Afterward, many people quietly walked through the museum. They stopped to look at the skeleton of Betsy, the first ox that had belonged to the Agricultural Research Station. They admired the many bulletins George had written over the years and the huge carrots he had preserved for display on the first Jesup wagon. His mother's spinning wheel was there too, along with her bill of sale as a slave. Nearby was the Bible Mariah Watkins had given him in Neosho, Missouri, all those years before. George had read it every day of his life, and now it was placed beside a photo of ten-year-old George and his brother Jim.

Many in the crowd stood outside the museum under a dull, overcast sky and told one another stories about their old friend. One fellow professor chuckled as he recalled a recent interview George had given. The report had written that George was "a toothless old man." When George read this, he was indignant. "Nonsense," he countered. "If he had taken the trouble to inquire, I could have proved I am not toothless. I had my [false] teeth in my pocket all the time."

A wealthy black farmer recalled how George had urged him to save a nickel a day and that he had eventually saved enough money to buy his own land and stock.

The stories went on into the evening; everyone seemed to have a special memory of how George had touched his or her life.

Other honors were poured on George Washington Carver. Six months after his death, George's birthplace at Diamond, Missouri, was declared a national monument. At that time, there were only two other national monuments that marked birthplaces, one belonging to George Washington and the other to Abraham Lincoln. A steamship was named after George, and then a postage stamp was issued with his portrait on it. In 1956 a Polaris submarine bore his name, and in 1973, he was elected to the Hall of Fame for Great Americans in New York. Biographies about him sold hundreds of thousands of copies.

Simpson College and Iowa State University both dedicated science buildings in his honor, and a seemingly unending number of schools continued to be named after him.

Decades after his death, biographers and historians are still trying to sum up George Washington Carver's long and eventful life. In the end, though, George probably said it best himself. In one of his last radio interviews, taped in his room at Tuskegee Institute, George said, "Why I should be so singly honored is more than I can figure out. I have just endeavored to do my little bit in the world

as fast and as thoroughly as the Great Creator of all things gave me the light and strength.”

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# *About the Authors*

Janet and Geoff Benge are a husband and wife writing team with more than twenty years of writing experience. Janet is a former elementary school teacher. Geoff holds a degree in history. Together they have a passion to make history come alive for a new generation of readers. Originally from New Zealand, the Benges make their home in the Orlando, Florida, area.

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