GEORGE WASHINGTON CARVER

by

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FOREWORD

Lucy Cherry Crisp

F O R E W O R D

This book about George Washington Carver had its beginning on a morning in May, 1933, ~~when I sat in an office~~ at The Woman's College of the University of North Carolina (Greensboro, N.C.) ~~awaiting the arrival of the chapel speaker.~~ As counselor for student religious activities at that college then, I was at times responsible for securing speakers for chapel convocations, and for that particular day I had scheduled a speaker of whom I ~~personally~~ actually knew very little -- a considerable risk to take on a college campus, as anyone acquainted with student opinion on the whole matter of chapel lecturers can well testify.

On several occasions J.T. Hardwick, then a member of the field staff of the Southern Student Y M C A Council, had said to me, "There is a man I want you to meet someday-- George Washington Carver. You may have heard of him as ' the man who has made so many things from peanuts'. He has done a lot of lecturing on college campuses, and still makes a tour now and then. I hope you get him at Woman's College someday. He's great ! " So, in the winter of 1933, when Mr. Hardwick had written us that another lecture trip was being arranged for Dr. Carver, we had scheduled him for a chapel talk. [redacted]

Now, today, he was to come, and I was conscious of a feeling of definite uneasiness as I sat awaiting his arrival, for a much-heralded speaker who turns out to be, in student language, a "flop", is a hard matter to live down on any school or college, [redacted] as I knew from too many experiences..... But now Mr. Hardwick was at the office door,

saying "Well, he's here ! Come out and meet him. We parked down at the auditorium."

As we walked down the driveway I had my first glimpse of the venerable-looking car of "very ancient lineage" which they had purchased for transportation on this particular tour. And there, on the front seat of the "chariot", as they called it, was our speaker -- enthroned among the high-piled seeming confusion of packing cases, bags, slabs of earth, sticks and stones and branches, which formed-- as I later learned-- his customary travel equipment when the journey was made by car.

"This is Dr. Carver", Mr. Hardwick said, and a voice peculiarly high in pitch replied , with a gentle sort of deference and dignity, "I am so very pleased to meet you".

I shall never forget him as he sat there,quietly alert, listening to our conversation as we spoke of the chapel program, and making occasional inquiries or suggestions about it. There was a quality of quietness about him, sensed immediately, even in the midst of the gay banter and repartee of the moment -- a quality of quietness for which I have never found more descriptive language than the words of the ancient Biblical phrase "In quietness and confidence shall be thy strength."....

Outwardly, he looked quite feeble, his broad shoulders slumped, his words soft-spoken, his hair white above his brown-tinged black face when he had removed his natty-looking plaid traveling cap. So feeble that when Mr. Hardwick jokingly asked "Is it about time we started to get him out of here?" I thought perhaps he spoke seriously, and answered "Well, how long does it take to get him out ?"

A spontaneous shout of laughter from both of them greeted my silly remark, leaving me considerably abashed at having been so taken in.

A few moments later, however, my embarrassment turned into something of alarm, for when our speaker-to-be had descended quite agilely from the chariot, a tall, strongly-built figure, and started walking toward the auditorium in long, vigorous strides, he continued to laugh in cascade after cascade of delighted high-pitched laughter. This man was our chapel speaker-- would he recover himself and return to his dignity in time ? And what kind of speech would this strange man be likely to make ?

I might have spared myself any such concern, for now we were at the back-stage door, the presiding professor was coming to greet us, and turning to make the introductions, I found our speaker dignity personified. A moment later Mr. Hardwick said "He likes to have prayer before he speaks, if we can". I closed my eyes and heard my name, spoken in the quiet, high-pitched voice I was to come to know so well: "Miss Crisp". Too surprised actually to pray, I said a sentence or two, and then the quiet voice spoke again: "Mr. Hardwick". A brief prayer by Mr. Hardwick, Dr. Carver's own simply-spoken petition, and the presiding professor was returning. Going down the corridor, then, to find my place out in the auditorium among the 1800 students gathered there for chapel, I found my mind at complete ease concerning the speaker for the day.

I saw them several times during the next few days, when Dr. Carver was speaking in and around Greensboro. They took me with them when he went to speak in Salisbury, 50 miles away, a young man from another college also accompanying us. On the way to Salisbury the "chariot" broke down, and while Mr. Hardwick and the student attended to the essential repairs, I walked with Dr. Carver along the edges of the field.

"This", he would say, bending down to pick a spray from a weed or some kind of little grass or flowring shrub, "is a most remarkable little plant. You will note the brilliant purple of its flower. Now, that is

whatbthey are using in the manufacture of so-and-so.... xx a most useful little plant".He was completely at home here, on intimate,appreciative terms with all these tiny weeds ans flowers and plants among which I, who had seenthem thousands of times, yet walked an utter stranger. As we turned to go back to the repaired chariot, he stopped a moment, arranged into a quaint little bouquet the sprays he had been gathering,looked at it for a long moment, then handed it to me,saying "I'd like to paint that someday,.... perhaps I shall." It was an unforgettable hour for me.

On the way home from Salisbury, someone started a song and the four of us sang, then -- old folk songs, spirituals, old hymns of the church, fragments of tunes only half-recalled-- the high tenor voice of our speaker sounding clear and true with the others. Now and then with a little chuckle he would say "That song always reminds me", and go on to tell us of some experience linked in his memory with that particular piece of music; some incident of his life story.

Later, beginning of piece together these bits of incidents, and others I had gathered in conversation with him, I found myself growing greatly interested in the extraordinary story of this man's life; in the remarkable pattern of the sixty-odd years that had brought him from the Missouri slave cabin into which he was born on up to the distinguished place he now held among the living scientists of the world. Discussing it with Mr. Hardwick, I inquired whether there were any biographies of him already written or being prepared, and learned that as yet there were none. A brief book about his life, and numerous newspaper and magazine articles and stories, but as yet, no adequate biography.

Agreeing that this was an important matter, and one that should have immediate attention, we came to the conclusion that we would begin work on one ourselves, ill-equipped though we knew ourselves to be for any such undertaking -- a decision undoubtedly another excellent illustration of "fools rushing in where angels fear to tread ". Dr. Carver's own warm ehthusiasm and endorsement of the idea served to vitalise our conclusion, however, and initial plans for carrying out the idea were made, the first step being that I should go to Tuskegee Institute as soon as possible to begin work with Dr. Carver on the story.

So it was that the idea for this book was born, and so it was that on a Sunday afternoon in June, 1934, I found myself on a train out of Atlanta with a ticket that read "Chehaw, Alabama". As I left the train at the diminutive Chehaw depot, a student in the blue uniform of the Tuskegee Institute cadets approached, touched his cap, and said "You are Dr. Carver's guest? The car is waiting here". The drive was brief, and we were soon passing through the gates of the Institute campus and drawing up before Dorothy Hall, in which is the Guest House. Graciously received and assigned a room by Mrs. Martin, the hostess, I was told that I had arrived just in time for Tea, and invited to come directly into the dining room. Here, where we were served by Home Economics students, I found several other guests already assembled -- this Guest House, as I was soon to discover, being a place where one may count on meeting interesting people from all parts of the world.

Dr. Carver-- or Professor Carver, as many on the campus still call him -- lived in Rockefeller Hall, they told me, and had been busy receiving visitors all day long. Greeting him by [redacted] telephone, I made an appointment to come and see his laboratory and office the next day, then walked for a while in the June twilight on the broad rolling campus

Faced by the immediate reality of actually beginning this venture we had planned, I was suddenly overwhelmed by my own smallness and inadequacy for the task. Who was I to write of the life of George Washington Carver ! Gradually, however, something of the peace of this memory-laden campus, upon which the man of whose life I was to write had walked among his students for 35 years, must have flowed into my troubled spirit, for I was asleep early, eager for the morning to come.

Nine o'clock the following morning found me at Milbank Agricultural Hall, inquiring of a student whom I met in the corridor where I might find Dr. Carver, and being shown into his office. And if I had been concerned over his loss of dignity just before his chapel talk in Greensboro, I was terrifed now by the awful preponderance of it ! This grave-faced, solemn elderly man who rose from behind his littered desk to greet me with such distant formality and chilling reserve could not possibly be the same Dr. Carver who had walked with me so recently in the edges of the fields, calling the weeds by name; who had lifted his voice with ours in song above the rumblings of the old chariot ! For brief but long-seeming moments I was panic-stricken, until happily some casual remark brought quick laughter to the rescue (As it has done on many occasions since) and the awful ice of shyness and self-consciousness on the part of both of us was completely gone, melted in the sun of laughter. Back again now was the sense of mutual understanding and confidence, the fundamental assurance of mutual inner surmise-- and we were ready to begin our work.

I have spent many hours at Tuskegee Institute since that June morning, for I have returned for visits of a week or longer whenever responsibilities elsewhere would permit it. There, talking with Dr. Carver in his office, his laboratory, his museum, or out on the campus or at Dorothy Hall, I have heard from his own lips much of the story that appears in

this book, particularly that part of it comprising the earlier chapters, for to no other source save his own memory could we go for the story of his early childhood. During my earlier visits at Tuskegee we spoke frequently of his boyhood and youth, some of his memories, dim at first, becoming clearer as we discussed. There remained much vagueness at some points, however, particularly as to dates and exact lengths of time spent at one place or another. He has never known the exact date of his birth, for instance -- only its approximate time.

As for the later chapters-- now and then he would give me the name and address of some person who had known him at some time of his life, saying "Now, you go and talk to him. He can tell you a lot more about me than I can about myself." I have found many such people here and there, though none who could ever quite measure up to that prophecy. Some of them have been friends of his early manhood-- from Colorado, Iowa, California, and Tennesee their letters have come in response to my request for help, letters describing the young Carver as they knew him. At Tuskegee Institute I have talked with staff and faculty members who have most generously told me of his life among them there. And here and there in many places I have found his "boys" and others who have known him, some intimately and some only through his public lectures, who have added their own particular contributions to this story of his life. Among the excellently ordered files in the Institute Research library I have spent many hours, reading the hundreds of newspaper and magazine articles and items written of the man himself and of his work during the past half century. It is from sources such as these, and from his own letters that have come to me wherever I have gone these nine years that I have known him, that I have gathered the materials for

this story of the life of George Washington Carver.

It is not a complete story, and makes no pretense of being. It is simply an effort to portray authentically the George Washington Carver whom I myself have come to know during the years that have passed since that memorable May morning when I first saw him enthroned in the old "chariot"; the story of his life as I have learned it from the sources available to me.

Today, in his seventy-seventh year, Dr. Carver is still busily at work insofar as his failing strength will alow him to be; still and important and influential part of the onflowing currents of his country's life. There will undoubtedly be many books written about him as the years pass. This one will well fulfil its purpose if, in the end, it can add even a minute contribution to the full portrayal, the evantual understanding of the measure and the meaning of the life of this extra-ordinary American, George Washington Carver.

PART I

CHILDHOOD AND YOUTH

I

DIAMOND GROVE

On a morning in early autumn, a little more than a decade after the close of the war between the North and the South, a strange little figure in diminutive jeans and homespun shirt came trudging down a hilly country road near Diamond Grove, Missouri. The bundle he carried slung over his shoulder gave a certain air of purpose to his trudging, but other than that there was nothing in the outward appearance of the incident to indicate the far-reaching culmination it was eventually to attain. People in the neighborhood, seeing him pass by, probably dismissed the little figure with a casual "There goes little George Carver. They say he is leaving home to go to school, and he is not much more than ten years old! Small for his age, too."

It was true. Little George Carver was leaving home and going a way to school. Not very far away, to be sure, as miles are usually measured, for he meant to go no farther than Neosho, a small town eight miles distant from the cross-roads settlement known as Diamond Grove. But for him it was a long journey, especially long on that particular day when he was leaving home for the first time alone, and --he felt certain --to stay.

The first ten years of his life he had spent there on the plantation at Diamond Grove with Mr. and Mrs. Moses Carver, the people to whom his mother had belonged in the days before the War had come and given the slaves their freedom. It was commonly said of the Carvers, honest, industrious, thrifty people of Dutch descent, that their purpose in purchasing a few slaves in the first place had been not so much to acquire them as property as to provide them a home and assurance of kind treatment.

Of his parents Little George had no recollection at all, for his father, Moses Grant, who had been a slave on an adjoining plantation, had died before George was born, trampled to death by an ox team. And his mother, Mary Carver, had been stolen by a band of the scalawag night raiders who appeared in many sections of the south during the closing months of the war, stealing and pillaging under cover of night. George himself had been stolen with her, but had been recovered by his master. He had heard the story of that dreadful happening many times from the Carvers.

When the news came that raiders were in the vicinity -- so the story was told to him -- the Carvers set about hastily hiding away any property that might be seized by the marauders. But there was only time to conceal what money there was in the house, and James, the older brother of George, before the raiding party appeared. Mary Carver, a household servant, was seized and carried away, desperately clutching her three-months-old baby close in her arms. And always, later, when the the story was told, someone would point out the tree to which Moses Carver was tied and tortured in a futile attempt to make him disclose the whereabouts of the hidden money and the boy, James.

Mr. Carver immediately sent out a man to search for, and if possible to re-purchase, the lost Mary and her child. Conflicting reports later surrounded the actual incidents of this rescuer's journey, but his own report-- and the one commonly accepted as true -- was that Mary Carver had mysteriously disappeared, leaving no trace whatsoever of her whereabouts. Long afterward it was rumoured that this man had actually found Mary Carver, bought her, and re-sold her with a margin of profit for himself, returning with a false report to the

Carvers. Another fragment of rumour held that someone had seen the lost Mary in the midst of a group of soldiers traveling northward. Whatever may actually have happened to her, it is certain that on that terrible night Mary Carver disappeared forever from her master's home at Diamond Grove.

The baby was left with a family in Arkansas, and here the Carver emisary found him. And the fact of the child's survival is almost as strange a mystery as that of his mother's disappearance, for in his three short months in the world this baby had been suddenly snatched away from his home, and then had lost his mother, and now was ill with a bad case of whooping cough. Actually, there was only a small spark of life left flickering in the tiny black body to be sold back to Moses Carver, and the deal was soon completed. The Arkansas family let the baby go in exchange for a horse brought along by the rescuer, a horse then valued at $ 300. Back at Diamond Grove, under the care of Mrs. Carver, the feeble spark of life was fanned into flame again, and the baby came safely through the drastic disasters that had attended his first three months. The two orphaned boys, George and his brother James, lived on then with the [redacted] childless Carver couple, and were cared for more as real children of the household than as sons of a former slave.

For some reason George, or Little George, as everyone called him, failed to grow and develop in a normal way physically. The shock of his early experience with the raiders may have had something to do with it, or it may have been the effect of the whooping cough. Whatever the reason, it seemed that nothing could induce him to grow. A droll, stunted, dwarfed-looking little creature, he gave promise for a while of becoming an actual hunch-back. But as time went on, by dint of

persistently carrying across his back a strong straight stick, braced in the crooks of his elbows, he was able in time to smooth out the unsightly hump.

Unfortunately, no such simple remedy was found for the trouble in his throat. He spoke and laughed and sang in a shrill sort of falsetto, and was addicted to stammering under the stress of the slightest excitement or amusement. The stammer he was able to overcome, but it was years before his voice took on a quality even slightly resembling the normal.

The fragments of his recollections of these early years he spent with the Carvers and his brother James present him as a paradoxical child, but one who was obviously the object of affectionate care and training and concern on the part of Moses Carver and his wife. At times he appears as a gay little elf, capering about the place in high glee; stealing forbidden rides on the sheep when Mr. Carver was not around; or slipping out of doors on snowy nights when he was being kept in on account of his croup, to run off with James for feasts of luscious persimmons; or singing in his queer falsetto voice the gay songs that bubbled up within him. Surrounded by the atmosphere of unquestioned security existent in the Carver home, he was blessedly free to laugh his elfin laughter, sing his gay songs, untroubled by any sense of oppression or insecurity.

Yet it is not in this gay elfish role that he most frequently appears during these childhood years, for a minor strain of wistful loneliness sounds again and again throughout the music of his early memories. Though he had never known either his mother or his father, and although the Carvers made a ~~home~~ Home for him in a way that probably has few

paralels in ~~[illegible]~~ American history, he yet continually longed for his own parents, particularly his mother. There must have been a quality in his childish sadness resembling the nostalgia so poignantly expressed in the old spiritual "Sometimes I feel like a motherless child, far, far from home." As soon as he was old enough to understand the story of his father's death and his mother's disappearance, he would ask again and again about his mother: how she looked;what she said and did; and whether she would ever return. Vaguely he gathered that Mary had been an extraordinary woman, in the opinion of all who knew her. He was certain that Mrs. Carver must have loved her, for whenever she began to speak of the lost Mary, she invariably began to weep. ~~He has today~~ Two relics of his mother ~~which~~ were given him by the Carvers, her Bill of Sale and her spinning wheel-- relics which he has treasured throughout the years , visible evidences of an inner devotion offered continually at a shrine created in his childish heart for a mother he never ~~fully~~ knew.

Down in the barn lot one winter day a tragedy occured which the boy was never to forget. He was amusing himself by throwing rocks and pebbles at snow birds feeding on the grain strewn about on the ground, his shrill laughter rising high above the whirr of wings as the startled birds rose in flight. Eventually a pebble actually hit a bird, and this,too, at first was a matter of great glee to Little George. He ran to find the wounded bird where it had fallen on the ground, but the sight of blood on its head sobered him instantly. Taking the little body gently up in his hands, he felt a feeble flutter in its breast, and then the bird was still. In that moment, he has said, it seemed to him as if all the misery in all the world must somehow be gathered together in him, so overwhelming was his remorse, for--with

no excuse whatever -- he had taken away life from something he loved, and could never give it back again. There was no consolation for grief like this, and for days he went about the place a forlorn little creature, weeping bitterly at the thought of the dead bird his own thoughtless hands had killed ..... In later years he has often repeated the story of this childhood tragedy, invariably ending, "I have never forgotten that poor little dead bird."

Being so little and frail, and thus unfit for much out-door work, George spent much time about the house with Mrs. Carver, a habit which eventually came to be of much value to him, for she taught him to cook and to sew; to scrub and to clean; to keep a house and yard in spotless order. Too spotless, to the boy's way of thinking at that time, for it meant that he was not allowed to bring flowers or plants into the house; no bouquets must clutter up the place. Moreover, there was no room for his rocks, and this was a matter for much concern indeed, for as soon as he was old enough to go around by himself, he was forever going out to the nearby fidlds and woods and bringing back flowers or rocks or plants of some kind.

Long, quiet hours he spent out in the woods and fields, watching the birds and imitating their calls; or gazing for a long while at a leaf or a flower -- finding all manner of curious things and wondering about them. What made one rock white and another one brown ? And why was this flower small while another beside it was so large ? And this leaf -- how was it made in the beginning, and could he ever, when he was grown, make anything that would be like it ? Question after question took form in his mind during these long quiet hours he spent alone, roaming the surrounding countryside, finding and gathering his plants

and rocks to take home.

The day finally came when Mrs. Carver told him he would have to get rid of his rocks-- they were all over the house to be stumbled over, and she simply could not have it so any longer. Considerably troubled, he went outside to try to think what he could do. Just a few days before he had found a wonderful rainbow- colored rock, broken into two pieces so that the marvelous colors showed all through. He had brought both pieces home, and now to give them up seemed utterly impossible. Finally he took one piece in each hand, went far out from the house, closed his eyes, and threw one piece as far as he could fling it, then ran in the opposite direction to find a place somewhere to hide the piece he had kept. Back in the chimney corner under the house, he eventually found a hiding place for his rock collection, and today in his museum at Tuskegee may be seen the treasured rainbow piece he preserved from the stern decree.

There was difficulty with Mrs. Carver over his frogs, as well. He had made a wonderful collection of frogs in graduated sizes, each one a little different in size from all the rest-- an enviable collection indeed ! But trouble came when he took to carrying the collection around with him in the pockets of his jeans, for Mrs. Carver, who probably shared little of his enthusiasm for frogs in the first place, certainly could not put up with having frogs of all sizes go hopping about the house at night. And so it was that the hard law was laid down: Little George would have to turn all his pockets inside out whenever he entered the house .

It was after these experiences with his rocks and frogs that he made a secret garden down in the edge of the woods, a place to which he could bring the plants he was constantly finding in his rambles here

and there -- finding and wanting to keep. Here he brought his beloved plants and cared for them with a wisdom based partly upon the knowledge to be expected of a Missouri country boy of his day, and partly upon a strange, intuitive understanding but poorly explained by any usual logic or reasoning.

The Carvers taught him to read and to write, and gave him a copy of Webster's Blueback Speller -- a book whose pages he searched eagerly but vainly for answers to the questions that buzzed incessantly back and forth in his alert, curious mind. James had been to school at Neosho, the town eight miles away, riding horseback back and forth each day. But James was not able to tell his little brother the things he wanted to know about his rocks and plants; nor was he able to get much help in the matter from the Carvers. So it was that he thought, and then the conviction, grew in his mind that he, too, must go to school; that he must go somewhere to find the answers to his questions for himself.

Talking the matter over with Mr. and Mrs. Carver, he found them willing, though reluctant, to let him go. He was much too small to ride the eight miles each day as James had done, and besides, there was no other horse for him to ride. It would be necessary for him to find some place to stay in Neosho. The Carvers had no moeny for his schooling, but if he wished to go and try to make his own way, they said that they would raise no objections. He might go and try it for a while, and then, if he wished to, he could come home again.

He had been to Neosho before, for twice each year the wagon was made ready for the trip to town, the purpose of the journey being the purchase of a half year's supply of the household necessities it was impossible to raise at home. James went on one of these trips each year;

Little George on the other, and it was always a great day. Mrs. Carver never went with them-- in all her life she never went out of the county in which she was born-- but Little George had been to Neosho and had seen the school there. How he would live or what he would do as a means of livelihood he did not know, but that could be taken care of when the time came. All that he knew for certain now was that he was going.

Thus he set about making his plans, and finally the day for his departure came. Mrs. Carver helped him tie up his clothes and some food in a little bundle. He put in some of his precious plants, and the piece of rainbow rock. Then he was ready to go. Taking up his bundle he said good-bye, and his diminutive figure was soon lost to the sight of the Carvers and James as they watched him go trudging down the road and disappear over the hill..... Droll, stunted, Little George Carver-- the greatly gifted but greatly handicapped son of two slaves -- was leaving his home to go away to school and to make his own way in the world.

II

NEOSHO

It was an exciting journey, the eight-mile walk to Neosho on that early autumn day-- there were so many new things to see and to think about. Familiar landmarks George had seen before on his trips with Moses Carver assumed a new aspect now as he walked along by himself; there was a new glamour and enchantment about them all,for he was going to school. He would soon know, now, many of the things that had puzzled him for so long; the answers to the questions that had buzzed about in his mind. School school, school .... the word sang itself over and over within him as he walked along, stopping now and then to examine a plant, or to listen to the call of a bird.

He would manage to get along somehow; of this he was quite confident. He knew how to do so many kinds of work-- he could cook, clean house, milk cows, cut firewood -- many, many things! The people in Neosho must have someone to do such things for them, he reasoned, and they would pay him for his work. Then he could take the money and buy food to eat, and books to read. Someday he meant to have a hundred books-- perhaps even more than that ! And he would find some place to live; someone would let him have a home in Neosho, and he would work and pay for it. And if he should be sick so that he could not work, he could go back home to the Carvers again;he could always be sure of that. It was a warm, encouraging certainty.

So he went on his way to Neosho, confident, happy, excited, the eagerness in his heart giving wings to his feet so that he felt littl e

tiredness from the walking. Neosho was not a large town, but to Little George it seemed large, accustomed as he was to the comparative isolation of life at Diamond Grove. Yet he was not afraid. He had been to some of the stores with Mr. Carver, and knew his way around the town a little; why should he be afraid ? The first matter of importance was to find a place to spend this first night. It was too late to look for any work today; that must be left until tomorrow. But what should he do tonight ?

It turned out to be very simple. On the edge of town he found an old barn that looked as if no one used it anymore; he could stay there. Certainly no one would mind, and it would be a good shelter in case a rain should fall. He had spent too many happy hours in the woods alone to be afraid to stay by himself, even in so strange a place, and whatever tugs of homesickness he may have felt were soon overcome by the natural exhaustion of the eight-mile walk and all the excitemnet of the day, so that it was not long before he lay fast asleep in the old abandoned barn, his head pillowed on the precious little bundle that held all his earthly possessions.

For several days he was busy looking for work, coming back to the barn to sleep at night. Some of the store-keepers recognised him as the queer-looking little boy they had seen with Moses Carver on his rare visits to town, but George had little notion of needing , nor of asking for help from anyone. What he wanted was work to do by which he might earn his own living. From house to house he went-- an eager, confident, though at times tired little boy, inquiring if there were any odd jobs he might do. And finally he did find people who had such jobs and who were willing for him to try them. He looked far too small to be able to

do the things he said he could do, but when given the chance, he made good his promises in a remarkably efficient manner-- thanks to Mrs. Carver's thorough training. Actually, these little house-and-yard jobs were quite easy for him; he had been doing such things at the Carvers almost ever since he could remember. It was harder having to look for them, but people would pay him for them now, in money or clothes or food. If he could find some place to stay... that was the main problem. The old barn would serve for a little while, but winter would come, and he could not live in a barn. And then it was too lonely to be always by himself at night, with no one to whom he might talk... He wanted a home and a family.

Then one day he found them. In his rounds of job-hunting he came to a neat, three-roomed frame cottage on the edge of town where a Watkins family lived, people of his own race. Mrs. Watkins was a nurse and was often away from home nursing sick people for days at a time. They found that George could cook, milk cows, keep and house clean, and work a garden-- at least he said that he could. And since they had no children of their own, if this boy could actually do the things he said he could do, he would be just what they needed, a handy boy to have around for company as well as for work. They felt very drawn to the strange little fellow, and the matter was soon settled. He would come and live with them, working about the house and yard for his board and keep, and when school was in session, he could go to school.

As the weeks went by it was more and more evident that the arrangement was wisely made. George did the cooking, when necessary; milked the cow, and looked after the garden, all with the meticulous care demanded by his own [illegible] sense of order as well as by the habits instilled in him [illegible] in the Carver household. He found both Mr. and Mrs. Watkins sympathetic with him in his eagerness to learn, and willing to give

him all the help they could. They could both read and write fairly well, but their help came chiefly through their understanding and encouragement and care.

Mrs. Watkins was touched, as Mrs. Carver had been, by his physical frailty, and did all in her power to make him more vigorous and healthy. They were delighted with his little garden, for he had begun a new garden just as soon as possible after he knew where he was to live. It was not long before he was spending all the time he could in the woods and fields again, among the flowers and rocks and wild things that he so loved. News drifted about that the little boy living with the Watkins family knew a lot about plants and could make them grow, and before long the neighbors were bringing him their sickly plants. He seemed to know how to find the trouble, and to start them growing again. The "little plant doctor", people in the neighborhood soon began to call him. The child has a "growing hand", they said.

He could scarcely wait for the time for school to open, but the day did finally come. A disinterested on-looker might have found little of beauty in the one-room log house to which George went so eagerly, but to him, during those first days at school, there was a mystic enchantment about it. Here he was to learn, learn, learn! What did it matter that the miracle was to take place in an ugly, uncomfortable log hut! He sat, with the 15 or 20 other pupils, on backless wooden benches, holding his slate on his knees; and with the other 15 or 20 paid more or less heed to the widsom unfolded by the man who was their teacher. They were studying not only Reading, Writing, and Arithmetic, but Geography, Spelling, and Grammar. Intriguing vistas opened up before George as the days went along, for his creative mind was able to take the stray crumbs of knowledge received each day and make of them nourishing bread for his

imagination and wonder. Still, though grateful for these crumbs, he grew more and more hungry for the real bread. It was a hunger that deepened and grew as time went on and he found so many of his ceaseless questions still unanswered, by either his books or his teacher.

There were times when he was very lonely during this first year away from home. It was fun to romp and play with the other boys at recess time at school; but none of them, he discovered, liked to go with him to roam the out-of-doors when he went in search of plants for his garden. So, again, he went to the fields alone. The birds and little woods animals came to seem as much at home with him as he was with them, for he had practised until he could whistle their notes almost as well as they themselves could.... If he could only understand what it was they were saying !

Now and then, when Mrs. Watkins could spare him, he would go back home for a week-end visit with the Carvers and James, and out of these visits one incident in particular stands vividly imprinted in his memory. One Saturday afternoon as he walked along the road on his way to Diamond Grove, a man overtook him and offered him a ride. Scarcely was he settled in the rickety buggy, however, before the man began to beat his bony, weak old horse with constant cruel blows. To George it seemed that each blow fell upon his own sensitive body, and finally, unable to stand it any longer, he explained to the man that he was almost home, and getting out of the buggy, climbed a little cliff beside the road and walked the remaining distance home. Perhaps, he thought, among his friends of the woods, he could forget that poor old horse. But he never has.

At times there were opportunities for him to work at extra jobs for people of the town, sawing wood, beating carpets, going on errands here and there. It was a good means of earning a little money for his

needs now and then. In his contacts with some of the white people for whom he worked he sometimes sensed what to him was a very strange attitude; he had never known anything like it in the Carver home, and at first was greatly puzzled to know why these people felt about him as they evidently did. Some of them seemed to think that he was very different from them; they spoke to him in tones they never used when talking among themselves, or to other people of their own race-- tones that sometimes brought a big lump up into his throat and a baffling question into his sensitive mind. Gradually it began to dawn upon him that this manner and attitude were somehow connected with the fact that his skin was dark, a fact that seemed in some peculiar way to make a great difference to these people who were white. His color had never seemed to make any difference in the years at Diamond Grove, when he and James had lived with the Carvers; at least he had never been made aware of it. But it seemed that now, to some of these people with whom he had dealings, it did. Realising that this was something he probably would always have to face, he made up his mind that he would try each day to forget the incidents that hurt him, no matter what they were or how they came, remembering only those that made him feel happy. It was a child's decision, but one he was faithfully to adhere to insofar as it was possible for him, all the days of his life.

On a day in late spring a covered wagon stopped at the Watkins home and a colored man and his wife came in to ask for lodging for the night. They were strangers, traveling on their way back to their home in Fort Scott ,Kansas, and wished to stop for a rest. It turned out that they stayed on for several days, finding the hospitality of the Watkins home very much to their liking. They became interested, also, in the

little boy, George Carver, and were not long in discovering his unusual eagerness for new knowledge and understanding. Presently they suggested that he go to Fort Scott with them. They were unable to give him a home, or help him financially, they said, but they would be glad to give him the trip with them, and he would find a good school at Fort Scott.

What should he do ? It was a big decision for a boy so small to make, but from the first George was almost certain that he would go. Fort Scott , a railroad center, was a much larger town than Neosho, and he would have no family or friends to whom he might go if something terrible should happen to him, some immediate need arise. He might not find any work to do-- he might even go hungry until he starved ! But he had no intention of letting that happen; he had made his own way in Neosho, and he could do it again in Fort Scott.

The school there, he imagined, would be wonderful, and there would be many new people to tell him things; many new places to see. For some time before the school session in Neosho was over, he had felt that there would be little use in his going back to school there again; he felt rather certain that this teacher had already told him about all he would be able to tell-- of the things George wanted to know, that is. And there was something else to be considered: The doctor had advised Mrs. Watkins that the boy might be more strong and healthy in some other climate. He had continued to be very frail, and still had not begun to grow to amount to anything at all; she had been very anxious about the child at times. Perhaps the climate in Fort Scott would be exactly what he needed.

All in all, it seemed best for him to go; George himself was sure of it. In a vague sort of way it seemed to him that it must have all

been planned somehow that he was to have this chance to go on. Just where he was to go, ~~xxxxxxxxxxxxxx~~ or even where he wanted to go, he was not sure at all, but somewhere farther on. There were so many questions still unanswered in his curious mind !

And so the decision was made. His little bundle, a bit larger this time, was packed and tied up again. And again he said good-bye to the comfortable security of a home and -- obedient to the urging of an inner Command, of whose import he was as yet too young to be aware -- he set off with two strangers in a covered wagon, westward into the Unknown.

III

FORT SCOTT AND MINNEAPOLIS

Fort Scott lay to the west and north of Neosho a distance of little more than 75 miles, a mere commuter's journey today. But to the man and woman and eager little boy making their slow way in the covered wagon, setting up camp in the open at night, sixty-odd years ago, it was a trip of memorable magnitude consuming the greater part of two weeks. The way led through rolling country, woodlands, isolated areas, a few small settlements, and fertile farming sections. Goerge was entranced with it all, drinking in the sights and sounds of the strange new country with all the excitemant of a little boy going on his first long journey , coupled with the deeper excitemnt of finding fresh new food for his hungry young mind, fresh fuel for the fires of his incessant curiosity. Writing of this trip long afterward, he said "My chief recollections of this journey are of the beautiful wild flowers, the marvelous rocks, and the beautiful birds we saw."

Arrived at Fort Scott, the county seat of Bourbon county and a town of some importance as a railroad center, George began again his search for work and for a place to live. Years later, trying to piece together his fragmentary recollections of the seven years he spent at Fort Scott, he remarked, quietly--with an infinite pathos in his tones, a compelling appeal for understanding in his eyes -- "I don't remember many actual incidents of those days. You see, a little colored boy living about in first one place and then another, expecting to be kicked around and being somewhat surprised when he isn't, doesn't set down many data for future reference".

By and large, however, his Fort Scott life followed the pattern he had set for himself during the year at Neosho. He lived for part of this period with a Negro family by the name of Payne, doing work about the house and yard to pay for his board and lodging, with additional work for other families in town as a means of earning the extras of livelihood.

The school was good here, a well-organised graded school housed in a five-room frame building, with instruction that was much more satisfying and stimulating than that experienced in the log school house at Neosho. Here again he was studying Reading, Writing, Spelling, Arithmetic, Geography, and Grammar, and enjoying them all except Arithmetic---a subject upon which he expended little affection, and probably little work, in Fort Scott or anywhere else. He was beginning to draw, now, however, and to give to his drawing the time and attention that some of his teachers might have considered better spent on Arithmetic. He liked to sing, in his clear high falsetto, but in these years he had yet to see his first piano or organ.

Many hours during these 7 years, as at Diamond Grove and Neosho, he spent in the out-of-doors, engrossed in discovering and pondering the mysteries which lay all about him. "I literally almost lived in the fields and woods", he has written of these years. And the countryside about Fort Scott, rich in mineral deposits, provided a wealth of material for his investigative mind. The Payne family, like Mr. and Mrs. Watkins, were interested in gardens he was always planting and tending out in the yard, or in his windows, or in boxes and various containers he kept around him in the house. His plants

were almost like people to him, close and intimate acquaintances to be thought of constantly and cared for tenderly.

But he had many human friends, as well, of his own and of the white race, among children of his own age and among his elders also. Like any normal child, he enjoyed the daily pranks and play of his companions of his own age, but he liked at times to spend some time with older people, as he had done at Diamond Grove and Neosho--proud when he could do some errand for them, interested in their comments and conversations. Some of these friends he found in the churches to which he went on Sundays.

"I loved to go to church and often went", he has said, "but the denomination made no difference to me" -- a statement which was to be true of him not only in these days of his childhood, but through all his ensuing days.

The climate at Fort Scott, slightly colder than that at Neosho, seemed to agree with the boy and he grew much stronger in physical strength during his seven years there. But he still was a small, dwarf-like creature, showing little appreciable growth of body as the development of his inner perceptions and appreciations went on at rapid pace. It would seem that a physical difference of this kind might have set him apart from companions of his own age, making him sensitive concerning his size, shutting him off from interests and occupations of normal adolescence. But his recollections deny the existence of any such actuality.

"My school-mates never seemed to notice any difference", he observes, "and I had many friends who were always encouraging me to go on. I cannot remember now the name of any particular person who was of greatest help to me, but there were those, both white and colored, who took an interest in me and did much to make me feel like other children with homes and families ..... I had no particular sense of calling or

mission in these days. I just hungered to know about everything, real or artificial: How did this get to be this way ? Why can't I make something like it ? I must learn how ."

One horrible recollection out of the Fort Scott years was destined to lie, like a livid scar, across his memory ever afterward: The recollection of a lynching. The house in which he was living at the time was near the jail, near enough that he saw the crowd come, batter down the jail door, and drag away the Negro prisoner--his head scraping along the rough street until the skull was broken-- drag him away to the place where he was killed. This was something too terrible to be held within the bonds of the child's decision George had made in Neosho-- the decision to forget, as far as possible, the incidents that hurt him ,remembering only the experiences of joy. There was no forgetting this lynching, and years later, after he was sought as a lecturer in schools and cities all across America, this recollection returned to haunt him now and then. On one occasion in particular, when he was scheduled to speak on a college campus and a controversy arose in the town around the fact of his race, this memory suddenly filled his mind with a swift and nameless terror, recalling for a moment in the mature man the agony of fear born years before in the heart of the sensitive boy.

After seven years in Fort Scott, George finally yielded to his growing desire to see the Carvers and James and Diamond Grove again. He went home for a summer vacation. And so small was he in stature even yet that he bought a half-fare ticket, only to learn that even that was unnecessary, for the conductor on the train, when the ticket was

proffered, said in astonishment, "Why, child, you didn't need to buy a ticket. You are small enough to ride for nothing!"

It was a happy summer at Diamond Grove. George had kept in touch with the Carvers and James by occasional correspondence, but there was a great joy and satisfaction in actually being back with them again, exchanging experiences, visiting again the places he loved; going occasionally to see the Watkins family in Neosho. At the end of the summer, for some reason long since forgotten, he did not return to Fort Scott as he had intended, but went on farther west and north to Minneapolis, a small town in Ottawa county in north central Kansas. Here he spent the next two years, earning his own living as before, and completing his high school work.

Two major happenings stand out in sharply etched design against the background of these Minneapolis years. First, a major loss. A letter came one day from the Carvers bearing the sorrowful news that James was dead. He had not recovered from an attack of small-pox. For George this meant that no living relative, no person of blood kin, was left him in the world. Two daughters had been born to Mary Carver and her husband, but these had died in infancy, leaving only the two boys, James and George. And now James was gone, and George was left with no living kin, no family ties whatever. To the heart of the young boy there in Minneapolis, this realisation brought a sense of unspeakable loneliness from which he was never to be quite free.

The other Minneapolis experience was one of much joy, however, for finally, after all the years of being a little dwarf, George Carver began to grow! And so rapidly did the long-delayed growth take place that, after a little more than two years, he stood a bit more than

six feet tall, somewhat stooped, but--at long last-- in actual physical height, a man ! Along with this amazing development in size, there came also a more normal voice, high-pitched and of peculiar quality still in speaking, but a clear,high tenor in singing.

As he came near the end of his high school work, his desire to go on to college increased, finally crystallising into definite purpose and plan. His choice of a college fell upon Highland University, a school owned and operated by the Presbyterian Church and located at the little town of Highland, in Doniphan county up in the northeastern corner of Kansas. Here at Highland, in a school under the direction of a church, and located in a small town whose life centered around its college, its several stores, and its four churches, he expected to find the simple, kindly, religious environment for which his heart and mind hungered.

His application for admission was sent in and tentatively accepted, with the usual reservations, and throughout the summer his plans made struggle to keep pace with his dreams as he looked on ahead into the days to come when he should in reality be in college. He expected to study Science, as a matter of course, particularly those sciences that dealt with soils and plants. But along with his Science he would study painting and music -- the prospect was almost breath-taking in its entrancing possibilities, and filled his mind constantly with eager anticipations as he went about his work those summer days, endeavoring to make the money essential for the trip and for the first few weeks' requirements. His means of support thereafter was a matter he would work out after he had reached Highland, at that time a village of about 600 inhabitants, four miles from the nearest railroad. Thus the summer drew on to its close, and the day finally dawned when George Carver found

himself actually arrived in Highland, Kansas, his heart and mind flooded with high hope, and confident, courageous dreams.

IV

Highland, Beeler, and Winterset

At the time appointed for registration, George Carver, along with the 150 other young men and women who made up the student body of Highland at that time, presented himself on the campus to complete the matriculation requirements-- a tall, extremely slender, eager youth keenly aware of the high significance of the day. And then, suddenly, the incredible blow fell: He was refused admission to Highland University. His written application had been tentatively accepted, it was true, but that was before his racial heritage was known. This tentative acceptance was canceled now, for he was a Negro, and no Negro students were admitted at Highland University.

The stark, immediate question for him in those first days after his carefully-planned purpose of going on to college lay in fragments about his feet was simply: What shall I do now ? The problem was the two-fold one of how to earn his daily bread and at the same time work out some adequate way by which he could, outside college walls, go on to realise the invincible desire and purpose the years of his youth had deeply rooted within him.

The habit of independance hard-won during the years at Neosho, Fort Scott, and Minneapolis stood him in good stead now. With no funds sufficient to take him elsewhere, he was obliged to stay on in Highland, in daily proximity to constant reminders of the bitter frustration of his plans. Turning to fine laundry and house-and-yard work again as a means of livelihood, he set out to study alone, for embedded in the spirit of this tall, quiet-seeming youth there was a hunger for learning and understanding that was not to be defeated nor denied, even in the

face of such shock and disappointment as had now befallen him. The story of what had happened to him spread about the little town, and there were townspeople, particularly several church women, who saw to it that he had the work by which he could at least earn a living. For a part of the time during his stay in Highland, he lived alone in town. Later he was employed at the John Beeler homestead, about a mile southeast of town, for various types of work about the house and farm. With Frank Beeler, a young son of the family, he soon became fast friends. Writing later, in the "Highland Vidette", Frank Beeler gave this picture of George during his Highland days:

"He applied for admission to the University but for some reason, never very clear to me, he was never accpeted. Not discouraged, he went diligently to work with his studies, meanwhile doing fine laundry work, knitting, tatting, embroidery, and painting, vocal and instrumental music. Exceptionally bright, quiet, modest, he was a general favorite at many social functions. Mrs. Wilson Baird, Mrs. Dr. Hammond, my mother, and others took an interest in the boy.... Next he went to Ness county, Kansas, and filed on a homestead two miles south of the little town of Beeler (About 525 miles southwest of Highland) built a sod house on his claim, and put in crops. He also got a job with the Gregg-Steeley Livestock ~~randh~~ ranch doing house work and cooking, carrying on in the meantime his music, painting, and studies. Mr. Steeley was a fine violinist, Mr. Gregg a good guitarist, ~~Goegr~~ George organist, and myself B flat cornet. I look back with a great deal of satisfaction to the concerts we pulled off in the sod houses and also in my store ~~afater~~ after business hours....."

In his story of George and the roasting corn ~~epidex~~ episode, Mr. Beeler affords a further glimpse of the daily tenor of life as it went o

on in the sod huts and settlements out on the Kansas prairie in those days of the late eighties. About half-way between George's house and the little settlement of Beeler-- so the story goes-- lived a settler known as "Cyclone Munn". Flowing near the Munn house there was a small creek, making possible a garden; and in this garden--at one time--there were rows of green corn, a rare sight on those dry Kansas acres in those days. George and Frank kept careful watch on the growing corn, gaily laying their plans for that day when the ears should be ripe for roasting. When the time finally came, according to their plan, George waited for a cloudy night, then made his way to the Munn garden, transferred the juicy corn ears from the stalks to a gunny sack brought along for the purpose, and was on his way to the store, exultant, when suddenly there were shots, and bullets came singing by him. Frightened almost out of his senses, he broke into a run and stopped only when he fell exhausted in the door of the Beeler store. But he still had his gunny sack of corn, and when he had recovered sufficient breath, he began the business of cooking the tender ears of corn in an old tin can over a fire built in a shallow hole in the ground. Inside the store, Frank Beeler managed to eat the roasted ears almost as fast as George brought them in, until finally poor George found himself left with only three ears of the delectable roasted corn to pay for all his pillaging, to say nothing of his terrible fright !

The painting, music, and laundry work mentioned in the Beeler sketch might have been expected in any comment concerning George during those years, but "tatting, knitting, embroidery"...these seem strange words to connect with him. And yet, they are not so strange, actually, for out of his early lessons with Mrs. Carver had come the ability not only to "sew a fine seam", but also to work out intricate designs in

tatting and crochet. The "fine seam" knowledge had been of practical value to him all during the years when he had taken care of himself, which naturally had involved not only providing food for his bodily wants, but keeping his clothing in wearable condition, as well.

And as for the tatting, knitting, and crocheting--throughout his life these have been for him a pleasant recreation and hobby. And at times, it appears, more than this. Writing a young artist once concerning the need for frequent relaxation from artistic efforts, he said "Sometimes the very best thing to do is to work out a design in crochet or tatting, as they require very high concentration along that particular line". He has found his designs in many places--dew-wet, fresh-spun spider webs being a favorite source of inspiration. It is not so strange, after all, to find George Carver, in his early twenties, in a lonely sod hut on the plains of Kansas, working out intricate and beautiful designs in tatting and crochet. As far back as he could remember he had looked upon things about him with two incessant questions in his curious mind: How was this thing made? And can I ever make anything like it ? Now, as a young man, with his two-fold artist-scientist nature deepening and developing, these constant questions apparently were uppermost in his thoughts, even in his recreation hours-- the scientist seeing, observing, comprehending the weaving of a silken cobweb; the artist recreating its design in tatting and crochet.

It is in this two-fold role of artist-scientist that we frequently find him out on the plains around his "Dry Claim" near Beeler, observing the soil, the vegetation, the ~~rocks~~ rocks. Few of the things of Nature about him escaped his minute observation. But he brought to his investigations and conclusions, even in those early years, something more than the keen observations and interpretations characteristic of the usual so-called

"scientific mind". He brought also the artist's out-pouring of tenderness and love for the beauty he found in them; the artist's compulsive desire to reproduce in something of his own creation this fragile, fleeting beauty. So we find him painting in oil, on smooth pieces of board or tin, or any useable surface--painting landscapes, at times, but more often the portraits of flowers and plants he came upon in his tours of investigation: the tiny yellow blooms of the cactus plant, the tall stately spires of the yucca--flowers that struggled for life and beauty, even as he himself must struggle, against tremendous odds.

There can be little doubt, moreover, that in these lonely, somewhat silent years that followed close upon the terrible shock of being denied entrance at Highland University, George Carver's intuitive understanding and grasp of the laws at work in the invisible universe deepened and developed, along with his growing understanding of the physical laws governing his visible environment . It was a background of understanding out of which was gradually to come his habitual and powerful consciousness of his own intimate and personal association with an invisible Creator in the working out of an eternal purpose vibrant in the heart of the universe. It was, again, during those years following the Highland incident that there began to come to him some sense of the responsibility he must ultimately assume for helping to secure for his own people the reality of the emancipation and freedom proclaimed for them at the end of the Civil War.

Coming to the conclusion, after two or three years, that farming was an almost inevitable failure on his Kansas "Dry Claim"; and probably longing, moreover, for companionships and opportunities not to be found in Beeler, George acted on the suggestion of a friend, sold his claim, and made his way east and north to the little town of Winterset, Iowa,

a little southwest of Des Moines. It was his intention to establish a greenhouse there, but when had had arrived and looked over the situation, it did not seem to him that there was much chance for success at such a venture in Winterset, so he gave up his original idea and found a job as cook in the Schultz hotel. Later, purchasing a small hand laundry, he set himself up in business as a laundryman, living alone in a tiny cottage near the edge of town, and baking special cakes for women of the town as a side-line indurtry-- again bringing into practical use the lessons in cooking and cleaning begun with Mrs. Carver at Diamond Grove.

On a memorable Sunday night, following his usual custom, he went into a church for the evening service. Coming in quietly, he took a seat in the rear and joined the congregation in the singing of the hymns with that joy and child-like satisfaction he always experienced in singing. In the choir the leading soprano, Mrs. J.M.Milholland, wife of a prominent physician of the town, heard the high, sweet tenor voice, identified it with the young man singing with such evident pleasure there in the rear of the church, and set out after the service to find out who he was. Learning that his name was George Carver, and that he was employed at the hotel, Mrs. Milholland the following day sent her husband, the doctor, down to the hotel to inquire about George and to invite him to come and talk with her.

The outcome was a friendship which lasted to the day of Mrs. Milhollan's death in 1935, and one which proved to be of extraordinary significance to the boy. Mrs. Milholland knew somethingof singing, and wished to learn to paint. George, self-taught, knew something of painting and wanted to know better how to sing. Thus was the agreement made: They would exchange lessons. George would give Mrs. Milholland lessons in painting, and she would teach him to vocalise. She must have been an extraordinari-

ly discerning woman, for she evidently saw in this boy possibilities of which he himself was only vaguely aware; and not only saw them, but had the insight and devotion to provide the constant stimulus of understanding interest and confident encouragement that would bring into fuller growth and fruition these latent capacities. As the acquaintance went along, she insisted that he come at the close of each day to talk with her and the doctor, telling them what he had done during the day; commenting on its various occurrences. It is impossible to measure the value of such a companionship to George Carver at that time; impossible to estimate its significance for all his coming days.

But there is ample evidence of the fact that this friendship was mutual in its values not only while George was in Winterset, but during many following years. Mrs. Milholland herself has made this very clear in a manuscript concerning young Carver, written from her memoirs several years before her death, but never published. "His experience in our Iowa town which had no higher school of learning", she wrote, " was far from what his nature craved. For this reason he very soon started what might be called a private school for himself, and the hours for each branch were as rigidly enforced as in schools where there are a great many students.....During these days there were many who greatly enjoyed being permitted to see his collection of Nature's stores, and were made to marvel at the beautiful specimens which resulted from his method of polishing... His gift for placing on canvas reproductions of beautiful flowers was a joy not only to himself but to those who saw in them the perfect likeness to the study from which they were taken. This was one of his pastimes on his Kansas claim, we judged from the large number of nature studies he had when he came to Winterset..These were given later to friends in our

town....

"While he may have been an enigma to many from his boyhood, he certainly was that to those who appreciated something of his rare character and and abilities in his first days in our State....Even in those days before collegiate doors opened to him, one of man's greatest faculties,the power of observation, had been very well developed in him so that he had a wonderful fund of knowledge. Those who questioned him, expecting little or nothing, were astonished at the ready answers which came to the most complicated questions, and found it a pleasure to be in his company. He was ever alert to lend from his resourceful powers to his friends, and many were his acts of kindness in the matter of placing plants,something which only those who have learned the secrets of plant life can successfully do. And no effort seemed too much for him to obtain for a friend a coveted fern or bulb....."

Other glimpses of George's life in Winterset have been given by another woman who knew and was interested in him then. "I first met him", writes Mrs. J.M.Robbins," in the home of Dr. Milholland, when he was engaged in giving Mrs. Milholland lessons in painting. I had known him by sight before, for he lived alone in a small cottage at the edge of town on the street by which I came in from the country. I frequently would see him seated at the table with the door open. I could not help noticing how nicely everything was arranged, just as precise as though he were expecting company. Then,too, I frequently passed him on the streets carrying very carefully an armful of fine white shirts he had laundered (This was when shirts had to be polished very shiny and stiff).

"The second time I met him was in Sunday School in the Methodist church. I was a visitor in the class and I well remember how amused he was at a remark I made; he made allusion to it afterward when he was

spending a few days in our home .....I had a son in his late teens at home then. I think he found Carver rambling in the woods on the hill above the house and invited him in. Anyway, he had a basket on his arm and said he was looking for botannical specimens. He was suffering from a bad case of tonsilitis and I asked him to remain until he was better,as I had a good remedy that I used with good results. So he remained until he was well. Being a very busy housewife, I left his entertainment to the boy who seemed greatly interested in him. I remember one conversation they had in particular. He was trying to get my son to go to college with him and my son said that he was too old. Carver said"Look at me"! The boy had found a huge petrified tooth of some prehistoric animal, and Carver told him he would take it and have it classified and find out what it was. When he sent it back he said it was the tooth of a mastodon; it seemed big enough for a whole jaw bone !

"How did he look ? Tall, angular, and somewhat stooped. He dressed plainly, and was neat and clean. His voice was very peculiar, almost feminine. He was interested most in Botany and painting in oil. I shall never forget the expression of disgust on his face when he saw the plight Mrs. Milholland had her brushes in. "O, your brushes, your brushes !" he exclaimed.

Mrs. Milholland may not have kept her paint brushes clean, but she did continue to prod George daily with the idea of going back to school. "She kept after me about it all the time", he remarks now and then,now, going on to dramatize the conversations in his inimitable way. "She would say,'Now, George, you've got to go back to school. You know you ought to be in school.' And I would answer 'Yes, but how CAN I ? I've just gotten a start with my laundry here. I still owe $ 40 on the equipment I bought. How CAN I go back to school ?'

"The idea kept bothering me, though, until it came to be an almost continual voice, ding-donging in my mind:'You ought to go back to school; You know you ought to be in school'. Finally one day in mid-summer, I suddenly stopped in the midst of the piece I was ironing, left my ironing board and went over to the window and stood looking out for a while. Then I suddenly heard my own voice speaking, out loud and with sudden determination:'Well, I'll GO back to school ,then ! ' "

Thus was the matter settled, and from the decision made on that summer afternoon there was to be no turning back. From that time on he began to plan again for college, and to find extra ways for making the money essential for the plan's beginning. In the adjoining county of Warren there was a school that would close no doors in his face-- Simpson College , in the town of Indianola. And so it was to Simpson that his thoughts and plans now turned, his days of drifting done.

V

COLLEGE YEARS - SIMPSON AND AMES

Simpson College, to which George Carver came in the autumn of 1890, was a small co-educational school endowed and directed by the Des Moines Conference of the Methodist Episcopal Church. It is doubtful if he could have found anywhere in America a school better suited to his needs and desires at that particular time than was this small college in Indianola, a town of about 2,400 inhabitants, easy of access with its two railroads, we are told by the college catalogue for that year, but "presenting to the students as few unworthy attractions and allurements to vice as any town in the State". (!)

There were 17 faculty members, and around 300 students enrolled. Three buildings housed the entire plant--College hall, Science hall, and Ladies hall. ~~The~~ Men students found rooms in private homes or in groups, sometimes boarding themselves "in companies of two to six". Naturally, for young Carver, Science hall was the center of interest, for here were the laboratory, museum, music rooms, and "an elegant Art room immediately under the sky light".

Consulting the 1890-91 bulletin a little further, we find that "the chemical laboratory contained an abundance of apparatus not only for demonstrations before the class but also for individual work on the part of the students". In the museum were extensive collections-- geological, botanical, zoological, and mineralogical-- which were used "not only for illustrations before the various classes, but in inidividual and original work by the students". As for the Art rooms, where George was to spend much of his time, they were "large, airy, and pleasant, furnished

with casts, a large number of colored studies, objects for still life study, easels, etc. with a system of steam heating and sky lights making work possible at all times. Other pertinent factors contributing to make this campus the realisation of George's highest hopes were the existence of Young Men's and Young Women's Christian Associations; daily services of worship in the chapel; four literary societies; and lectures during the year by "prominent men". Finally, in the general statement of the purpose of this college, there was this significant declaration: "The faculty regard the true function of teaching to be to help the student think, observe, and investigate for himself".

This, then, was the college to which Carver came in the autumn of 1890, to enrol as a special Art student, an undergraduate in the School of Music; and a special student in the Preparatory school. It was a congenial and nurturing environment for a youth who for a number of years had already been "thinking, observing, and investigating for himself"; who wished to study Art; who loved music; and who greatly desired to live in an atmosphere of simple, kindly religious thought and feeling.

He had been able, following his mid-sumer decision to return to school , to earn enough money to pay the $ 40 still due on his laundry equipment and to take care of the essential tuition payments and fees incident upon his registration at Simpson. When all the necessary requirements had been met, he found himself left with a balance of exactly ten cents. Half of this went for corn meal, the other half for beef suet, and on this incredibly meagre supply of food he lived for about a week.

"It took about that long", he afterward remarked, "for people to find out that I wanted and was equipped to do their laundry. After that, things were much easier".

"Had his Winterset friends known of the very slender purse he carried to Indianola", Mrs. Milholland wrote," his first days there might have been very different. But because of his constant resourcefulness, his friends did not dream but that the college laundry work, which had been promised him, would amply provide for all his needs."

Mrs. W.A.Liston, an Indianola resident who was one of his fellow students in the Art classes, has written of his first days there. "One morning soon after Mr. Carver's arrival", she says, "Miss Etta Budd, who was the Art teacher, came to me and said,'I have a talented boy who wants to study Art. He has asked to saw my stove wood for his tuition, and will you help find him a room ? He is a very promising young man, and we must help him'.

" I found that he had secured permission from the president of the college to occupy an old abandoned shack, and so I started out to look for him there. When I rapped on the door, and the young man timidly opened it for me, so modest was his demeanor that I scarcely knew how to approach him. Something in his quiet manner made it difficult for me to state my real errand, but a sudden thought came to me and I found myself asking if he could do some sketching for me. I wanted to paint my flower garden, and needed some help with the sketching. This proved an entering wedge for our long acquaintance and continued friendship. Noticing in one corner of the room an old black bread pan filled with corn meal and water, and an old stove on which was a boiler filled with shirts and collars he was laundering for the students, I finally came around to stating my real errand, and told him of an available room

he might secure near our home. Later, he moved to this room and was there throughout the year. I frequently saw him there, since the people from whom he secured the room were friends of mine whom I often visited.

" He was a constant surprise to me and to all who knew him. He had a number of interesting collections of geological and botannical specimens which he would show and explain to anyone he found to be interested in such things. He also had many of his own paintings, mostly in oil and all done from life. There was one very fine portrait of a yucca; he loved especially to paint novel flowers, it seemed. One day I found Mr. Carver working on some crochet patterns he was copying from a magazine, and, seeing my interest in his lace work, he brought out a large box of samples of designs he had found in many places. I looked at him in amazement and asked, 'But what are you going to do with all those patterns ? Why all this work ?'

" ' I am going back south to my people later on', he answered,' and I expect to use all these things in my teaching in the schools of the south'.

"He was a popular boy with the students, his excellent tenor voice making him much sought after as a singer, particularly in the Y M C A, an organization of which he was an interested and active member. I still have a picture of four boys who were leaders of the student Y M C A in our section at that time: Mr. Carver; a white American; a Chinese; and a Japanese. They met at our home during a convantion."

Having no actual family of his own to whom he might write the usual student letters home, George wrote occasionally to the Carvers at Diamond Grove, and more frequently to his close friends, Dr. and Mrs. Milholland in Winterset. In the spring of his first year in college we find him

writing the Milhollands naive school-boy letters telling of his progress in his studies,especially his beloved painting; of his teacher's comments on his work; of his future plans; of his plants and their care -- comments interspersed with humourous references to jokes evidently mutually shared and enjoyed. In March, 1891, he writes:

"Dear friends, Dr. and Mrs. Milholland:

I shall try to write you a few lines in answer to yours of sometime ago. I was very glad to hear from you, and had begun to think you had forgotten where I was. My health is very good except for a very bad cold I contracted yesterday--working in the studio when there was a draft blowing through. However, I will take some quinine tonight and hope to feel better in the morning. I have trebble the work I had last term and it keeps me very busy,and I beseech you, Doctor, to wait until I come up and I will tell you the joke I have on you; it is very good indeed,better than the key. I am getting along very well with painting, will begin flowers soon and then I will send the model for yours. I am painting independently now and have been for some time. My teacher said today that in all her contacts she had never met anyone like (--) and that I was going to excel in flowers. I am doing a great deal of her fancy designing and when the other pupils want to arrange flowers they are painting, they call on her, and she calls on (---). She farther told me that she had been watching my arrangements of flowers in my drawings and she had never seen me get them stiff and ungainly, and she is not going to let me copy a thing, but make my own designs and paint from Nature. She paid me two very pleasing compliments today. She is painting a large panel from one of my original drawings, it is cactus and the yucca of the plains. I have done all the cactus--that is,all that has been done, and she says she firmly believes she could not do them at all to look as I have them and she wants me to finish them for her....

"Well,here it is nearly 11 o'clock Sunday evening of the next week and your letter not finished. I hope to be able to finish it this time. I have been trying to write ever since I received your letter as I was so very glad to hear from you. I have been quite sick since I wrote you and had to be excused from school one afternoon but I am better now. I get a scolding nearly every day from my teacher about working so hard. We will have vacation in a week for a wekk. I want to go up to Des Moines during that time. I have been waiting to paint or rather get an idea of the transparent work in flowers before sending you the copy... I have nearly finished one very large marine and am painting on an original design of the cactus and yucca like my teacher's only very much larger, the canvas is 22 by 48 inches.

"The people are very kind to me here and the students are wonderfully good. They took into their heads that I was working too hard and had not home comforts enough and they clubbed together and bought me three real nice chairs and a very nice table. They left them

for me while I was at school. I have the name unjustly of having one of the broadest minds in school. My teacher told me the other day that she is sorry she did not find me out sooner so she could have planned differently for me. Well, this subject is getting very monotonous and was before I begun it but I thought you would like and be interested in knowing what they thought of me. Please don't let anyone see this letter but the homefolks.

The Scott Brown and the Eclectic are very highly recommended, the Eclectic especially. I don't know anything about the former but presume it is good for the president recommends it. If you are thinking of investing much in orchids I think you will regret it as they are very hard to raise and you will meet with failure on every hand almost. I will send you the names of two of the cheapest, they belong to the butterfly family, they come very highly recommended and are said to be of easy culture. One is spotted and the other is a beautiful purple, very fine, this one is 50 cents and the other 35. You can get them of Wm. H. Maule, 1711 Filbert St., Philadelphia.

Well, Dr., you may expatiate as much as you please on the key question, I hope you will enjoy it and will keep right after your turkey as you will not when I come up again for my joke on you is so good that it will monopolise all the time. Nearly 12 o'clock. Please excuse me and write sooner than you did before. My best respects to all, I remain your humble servant of God. I am learning to trust and realise the blessed results from trusting in Him every day. I am glad to hear of your advancement spiritually and financially. I regard them also as especial blessings of God.

Sincerely yours,
George W. Carver "

The "key" referred to several times here was an Arithmetic "Key" which George had evidently used or tried to use in his struggles with his Mathematics, and apparently a subject for considerable teasing on the part of the Doctor. Again in April, 1891, George Writes:

Dr. and Mrs. Milholland, dear Friends:

Since you wrote me I have been to Des Moines and back again. It was very muddy, but I had a nice time. I was to see your sister, Mrs. Maley, and took dinner with her. I intended to have gone and seen her the next day but could not get my business closed soon enough. She was very anxious to have me tell you what I thought of her sick boy. I really think it is a severe throat trouble and not his lungs and with the proper care of himself I think he will get well. When I was about his age I was in almost exactly the same condition if not worse with my throat which resulted in the loss of my voice, partially, for a number of years. I thank you very much for the seed. Part of them are up. I lost all of my foliages during the holiday vaca-

tion by putting them in a cellar that was too damp for them. My roses are just beginning to grow again. I want to try to root one of each of them for you if I can. I am getting along with my painting quite nicely, have not yet finished that very large piece on which I was working when I last wrote you. My teacher sends her best respects to you and also sends repeated invitations for you to come down.

I am taking better care of myself than I have. I realise that God has a great work for me to do and consequently I must be very careful of my health. You will doubtless be surprised to learn that I am taking both vocal and instrumental music(Piano) this term. I don't have to pay any direct money for my music, but pay for it in paintings. They heard me sing several times and then they gave me no rest until I took it, or rather consented to. They are very kind and take especial pains with me; I can sing up to high D and three octaves below, and I have had only one lesson. He told some of his students that he thought he could develop some wonderful things out of my voice, or words to that effect.

I hope your orchids are doing well. I saw some of that variety in bloom while in Des Moines, they are very pretty indeed. I wish you would send me a bulb of that Oxalis like we got from Miss Siders last fall. You can put it in a tiny box and send it by mail. I lost mine. I have two double fringed petunias(slips) I think they are both growing, if you haven't any I will send you one. You can't imagine how much good reading your letter done me, and tell the Doctor I enjoy his preaching very much and that I will finish Arithmetic this time, key or no key. I would like to come up a day or so before I go to Ames and then you could see and copy some of the flower work as I would bring some with me. Mrs. Maley wants to be there too, if she can, should I come.

I am glad the outlook for the upbuilding of the Kingdom of God is so good. We are having a great revival here, 40 seeking last night and 25 prose for prayers at the close of the service. I did not go tonight. My best regards to all and to your nephew also as I suppose he is there now. Shall be glad to hear from you soon.

Geo. W. Carver

The statement in the April letter, "I realise that God has a great work for me to do", was not an idly made remark, but a statement of a deepening conviction. George had come to college with the desire to make painting his major field of study; he wanted to be an artist--especially did he want to paint the plants and flowers he had come to know with such intimate and abiding affection. But with the broadened horizons of knowledge and understanding that were the

natural outcomes of his college life he came more and more to feel a quickened sense of responsibility to his own race. His own experience had taught him something of the intangible bonds by which his people still were enslaved; something of the tremendous difficulties involved in transforming those bonds into not only the rights, but the accepted responsibilities, of free-born men. His increasing knowledge of History, as well as of human nature, when coupled with his intelligence and his plain common sense, seemed to indicate clearly that the most promising way out of bondage into actual freedom for his race--most of whom lived and would live for years to come in the agricultural south-- lay in an increasing knowledge and practise of better methods in the whole field of agriculture.

By this time he was also somewhat aware of his own peculiar gifts of discernment in the so-called mysteries of soils and plants--those mysteries with which agriculture is eternally concerned. And gradually, the simple but powerful religious faith which more and more permeated all his thought and feeling, caught up together the two potent elements of his understanding of the needs of his own people and his intimations concerning himself, fusing them into an inescapable conviction.

He wanted to be an artist-- for years he had dreamed of it, planned for it. But if, by becoming a scientist, discovering and teaching more scientific and productive ways of making agriculture pay, he could be of more help to his own race than he could by becoming an artist, then he must study Science. Having come to this conclusion, he began to shape his college courses to accord with it, and to major in Science.

It was not a decision easily arrived at, nor lightly taken. Dr. Holmes,

then president of Simpson College, has said that when George told him of his determination not to continue in Art as a major field, he spoke of having put away his paints and brushes, adding, with an indescribeable pathos, "I couldn't do anything else all day, Dr. Holmes". It was impossible for him to keep his paints and brushes locked up in disuse, of course. The urge in him to paint was too fundamental and too strong. But the main conclusion held; the main sail was set, and its course lay now toward Science rather than toward Art. But it was then, as it has always been for George W. Carver, ~~and inevitably always must be,~~ the Science not only of a scientist but of an artist-- and of an artist, moreover, who was first of all a man of very simple but very powerful religious insights, compulsions, and devotions.

In spite of his difficulties with Arithmetic, jokingly referred to in his letter to the Milhollands, George was rated by his teachers at Simpson as "an excellent student, with perseverance, clear insight, and amazing patience." In his contacts with his fellow students, it appears that he was equally esteemed. Frank Crawford, one of his friends among the student group, has told of long walks he used to take with Carver on Sunday afternoons, and of other extended conversations they would have in George's room while the laundry work went on. Mr. Crawford declares that he never knew a man so intimately acquainted with Nature as this boy, nor one who was a better conversationalist on almost any subject in which he was interested-- and these were many and various.

These days at Indianola were very happy ones for young Carver, filled as they were with fun and friendships as well as with hard and constant work and fascinating study, and with ever unfolding vistas of thought and imaginings. Yet the time came when he realised

that in some other school he might find courses of study more definitely suited now to his needs in Agricultural Science than were those offered at Simpson. Consulting with friends and teachers, he began to think of going on to Iowa Agricultural College at Ames, Iowa -- now Iowa State College-- hence his reference to "going to Ames" in his April letter to the Milhollands. Ames was north of Indianola a distance of about 50 miles, and the Agricultural College there was a state-supported school. To Miss Budd, his Art teacher at Simpson, probably belongs much credit for his choice of Ames, for her father was a professor of Horticulture on the faculty there, and thus she was familiar with the special facilities and opportunities for scientific study available at Ames for a student of George's abilities and interests.

"I will take him to Ames to my father", Mrs. Liston quotes Miss Budd as saying. "Carver will fit in beautifully there".

This she did, and thus we find George W. Carver registered as a student as Ames in September 1891, although he was still registered as a special student in Art at Simpson both in 1891 and 1892. Among others on the agricultural faculty at Ames at that time were certain professors who became intensely interested in him and gave evidence of their interest in most practical and helpful ways. Professor Budd was one of these, professor L.H.Pammell was another; professors James Wilson and H.C.Wallace, both of whom were later to serve as Secretaries of Agriculture for the United States, were yet others.

"Miss Etta Budd interested herself in the boy because of his artistic ability", wrote Professor Pammell, commenting on George's arrival at Ames. "She came to me one morning and asked if I could give Mr. Carver some employment. I told her the only job I had was a janitor's job, but I would be glad to give this to him, which I did. The

next thing was to find a rooming place for him, for rooms were hard to get at Ames then. I allowed Mr. Carver to use my office downstairs on the first floor of old North Hall, now demolished, and I moved back to the second floor. Mr. Carver had this room during the entire time he was connected with the college."

Professor Budd placed him in charge of the green-houses, and instructed him to go to the commissary department and arrange for his admission into the boarding hall. Here the discouraging problem of racial discrimination arose to confront him again. "No colored boy comes into this college ", he was told."You cannot eat with the white boys". Writing his friend,Mrs. Liston, of the matter, George asked her advice as to what to do. There seemed to be feeling against him because of his color, he said, yet he greatly desired to stay on in school here at Ames. What should he do ?

Receiving his letter, Mrs. Liston lost no time in putting on her best dress and hat and taking a train for Ames. There she found Miss Budd and told her what had happened.

"Stand by him", said Miss Budd [redacted] "My father is going to keep him where he is".

And stand by him Mrs. Liston did. She had dinner with the head carpenter's wife (a graduate of an eastern college) in the basement room where George was having his meals with the "hired help". Afterwards she walked with him on the campus, staying until evening.

"The following day", he wrote her later, " everything was different. The ice was broken, and from that time on, things went very much easier."

At Ames, as at Simpson, it was of course necessary for George to provide his own means of livelihood, and here again he found original

and unique ways of meeting his continuous needs. To the janitor's job and the supervision of the green-houses, he added the work of acting as masseur for the college athletic teams, gaining experience thereby which was eventually to be of great value to him when, years later, he began his experiments in the use of massage for the treatment of limbs wasted and debilitated by disease. Now and then, when some special and acute need for extra funds arose, he sometimes made and sold lye hominy, a cereal food made from kernels of corn, and considered by many people a very delicious food.

The suspicions and antagonisms arising out of prejudice against his race, which had made his first days at Ames discouraging and difficult, could not exist for long in the presence of his kindly, humourous, somewhat child-like spirit; his unassuming endeavors to do his work well; his obvious endowment of distinctive and unique abilities. It is no doubt true that for many of his fellow students he remained an oddity and a curiosity. No other Negro student was enrolled at Ames at that time; and for many of the students, coming as they did from communities with small, if any, percentages of colored people in their populations, even the sight of a Negro was a rare experience. In spite of this fact, however, George found genuine, warm friends among both students and faculty, and entered into the extra-curricular affairs of student life on the campus with zest and keen enjoyment.

In the college cadet corps he attained the rank of second lieutenant, and later of cadet captain; he waa with the battalion accompanying Governor Boise to the World's Fair in Chicago in 1893 . (When jokingly brought to task by his friends later about having once been such a military man, he was accustomed to reply, rather sheepishly, that he liked the uniforms and the marching music of the band !) In the Y M C A here,

as st Simpson College, he found congenial companions and interests, becoming president of a Prayer and Mission group which was one of many such groups linked together in the Student Volunteer Movement, a vital force in the religious life of American campuses for many student generations. A small group of these students was accustomed to meet regularly as a reading and prayer group in the office of Professor Wilson. Concerning the work of these students, and of George in particular, Professor Wilson has written: "A great work was accomplished at Ames during those years, and now that college is famous for the firm stand taken by its students along Christian lines. Carver and I would sit down and plan how to get boys who were Christians to go to the depot to meet new students, come up to the campus with them, help them get registered and find rooms. This would establish acquaintance with these new students and enable young men of Christian leanings to get them into prayer meetings. Along these lines George Carver was my greatest help." It is not surprising, then, to find that for two summers Carver was sent as a delegate from Ames to the summer conference of the student Y M C A held annually at Lake Geneva in Wisconsin.

In addition to these various activities he carried on along with his studies and his "self-help" work, George yet found time for his habitual long excursions of investigation about the countryside, and for quiet communion with his familiar friends of the woods and fields. On some of these walks he had with him student friends and acquaintances, sharing with them his stores of information, whetting their curiosity concerning the mysteries at hand, sometimes succeeding in sending them out on discovery jaunts of their own. A small boy named Henry sometimes accompanied him, the son of professor Wallace.... a small boy who many years later, as United States Secretary of Agriculture, in speak-

ing to a group of scientists and educators at the Waldorf-Astoria Hotel (Feb.23,1939) declared "When I was a boy, George Carver introduced me to the mysteries of botany and plant fertilisation. Later on I was to have an intimate acquainatce with plants myself, because I spent a good many years breeding corn. Perhaps this was partly because this scientist, who belonged to another race, had deepened my appreciation of plants in a way I could never forget."(Incidentally, it is interesting to note here that the scientist's comment on these walks, made after Mr. Wallace was vice-president of the United States, was in these words: "He was the most inquisitive little fellow-- he wanted to know everything about every plant we saw ! ")

In the meantime, during his college years there at Ames, Carver was constantly deepening his own understanding and appreciation of plants-- their nature; their diseases; their cultivation; their possibilities. He had his own garden, of course-- he always had a garden, with special plants set in tin cans, flower pots, containers of various kinds. In his Ames garden there were various varieties of Amaryllis, with which he was carrying on experiments in cross-breeding in connection with the requirements for his master's degree, the subject of his thesis being "The Improvement of Plants by Man". The Amaryllis experiments, as it turned out, were to become a life-long piece of personal study and experiment ; they have been carried on continuously ever since. Symbolic of his love for plants, even in his student days George began to wear always a flower or sprig of some kind of plant in his coat lapel--a habit which came in time to be a beloved symbol to his many friends and acquaintances throughout America.

During vacations, especially at Christmas, he went to visit friends in Indianola and Winterset. "His abilities were equal to almost

any occasion," writes Mrs. Milholland. "Once when he was with us at Christmas time, we asked him to be master of ceremonies in the arranging of presents, and in the morning the grotesque figure in the dining room, with the gifts artistically arranged, afforded a time of much merriment. His power of adaptability was a great factor in his making of friends. Mr. Carver was with us over the Sabbath once when the president of Simpson College preached at the Methodist church, and through the happy greeting exchanged by president and student, one could readily recognise the warm friendship existing between them".

Of his work as a student at Ames, Professor Pammell once commented "He was the most wonderful collector I ever have known, and much interested in collecting fungi, among other things". The most significant testimony to the estimate placed by his teachers upon his work, however, lies in the fact that when he received his Bachelor of Science degree on November 14, 1894, he had already been offered a place on the Agricultural staff at Ames as Station Botanist. In a letter to the Milhollands, dated October 15, 1894, George writes:

" My dear Friends:

I was indeed more than pleased to hear from you; had you not written you would have received a letter from me soon as I intended writing..... I am glad to know that you are all well and that the Lord is blessing you so unsparingly... The Lord is wonderfully blessing me and has for these many years. I cannot begin to tell you all. I presume you know that I had some paintings at the Cedar Rapids Art Exhibit, was there myself, and had some works elected and sent to the World's Fair, and was also sent to Geneva twice to the Y M C A Summer conference as a representative from our college.

And the many good things the Lord has entrusted to my care are too numerous to mention here. The last but not least I have been elected assistant Station Botanist. I intend to take a post graduate course here, which will take two years, one year of residence work and one of non-residence work. I hope to do my non-residence work next year and in the meantime take a course at the Chicago Academy of Arts and at the Moody Bible Institute. I am saving all the pennies

I can for that purpose and am praying a great deal. I believe more and more in prayer all the time.

I thank you for your kind invitation to visit you; nothing would give me greater pleasure and I will do so if I can but I will have to cancel some other contemplated visits. There are so many that are so determined that I shall make them a visit this winter. But I think I will get to see you as I have much to tell you and ask your advice about.

I have been to a reception nearly every night last week and the cards are out for part of this week, one given by the president of the College and several downtown that are not connected with the institution. I don't pretend to go to all of them...

Enclosed please find catalogue and classification of our Mission library which has been secured and paid for this year. Our band two years ago was organised as a reading circle with 3 members including myself. We now have a membership of about 29 with 2 volunteers.* God bless you.

George W. Carver "

Mrs. Liston went up to Ames from Indianola to see him receive his degree of Bachelor of Science, in November, 1894. She found a situation very different from the one she had discovered on her first visit to him there. He came to the train to meet her wearing a new fawn-colored suit, with new hat, gloves, and shoes--an outfit which was a graduation gift from a number of his student friends. Mrs. Liston had brought a bouquet of red carnations, the class flower; another bouquet came from his Art Class; and still another from three girls who were former fellow students in the Art School at Simpson. "He was very happy", Mrs. Liston has said, "and very proud of his new suit"! During the exercises he read the class poem which he himself had written. Afterwards he took Mrs. Liston to dinner, not in the basement this time, but in the student dining room where they sat at a professor's table, with the new Bachelor of Science pouring tea.

Two years later, on November 10, 1896, he was granted the

degree of Master of Science in AGriculture, the first of its kind ever awarded a student at Ames. He had not carried out his idea of spending one of his graduate years in Chicago, studying at the Art Institute and at the Moody Bible School, but had stayed on at Ames, teaching and carrying on his independant research work and painting, while fulfilling the requirements for his master's degree.

Although he had been assured the continuation of his place on the college faculty, he was concerned as to what he should do when he had completed the work for his new degree. An offer came to him to take a position with a florist. His reply was brief, and couched in the crisp, emphatic terms which came to be characteristic of his replies to queries and comments he considered somewhat ridiculous. "I told them", he said," that I hadn't gotten my education to learn to arrange flowers for the dead". No, not for the dead; it was the living for whom he was concerned. There was now in his heart a great longing to return to the south, to work among his own people who had once been slaves but now wished in reality to become free men. It was for this that he had prepared himself --- Now would the chance come ?

In the spring of his last year of graduate study, it did come. In 1881, by a legislative Act carrying a small annual appropriation for maintenance, a Normal School for the training of colored teachers had come into being in the village of Tuskegee, Alabama, with Booker T. Washington as its ~~first~~ Founder and first Principal. The school under his inspired leadership had grown incredibly in its fifteen years of life, and now Dr. Washington needed a well-equipped man to become head of the departmentbof Agriculture, one of the most important divisions of the school's entire program. In his search for such a man, his attention was directed to George Carver, a graduate student at Ames, a young man recommended as highly qualified for the

place by his teachers, Professors Wilson, Wallace, and Pammell. So it was that in April, 1896, correspondence destined to be of lasting significance to the south and to America began between Dr. Washington and young Carver. The replies of the latter to Washington's letters give the gist of the story:

Iowa Agricultural College
Department of Botany
Ames, Iowa

Office of Botanist
L.H.Pammel, professor

C.B.Weaver
Emma Sirrine Assistants in Collecting

George W. Carver,
Station Assistant
Robert Combs,
Collection in Cuba

April 12,1896

Pres. Booker T. Washington
Tuskeegee Institute, Alabama

My dear Mr. Washington:

Yours of April 1 just received, and after a careful consideration of its contents, I now venture a reply. It is certainly very kind of you to take the interest you have in me.

Of course it has always been the 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 to our people.

Please send me catalogues and 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 expansion. I should consider it a great privilege to have an interview with you, but cannot say if I will be in the West or no....

I am so glad you met our dear Brother Marshall. I dearly love him. Should I not accept the position above mentioned I will be here at the college all summer except when my occupation calls me away. At the next writing I hope to give you a more definite answer.

May the Lord bless and prosper your work.

Geo. W. Carver

April 21, 1896

My dear Mr. Washington:

Yours of the 17th inst. received and the contents carefully noted. I hasten to reply because I must decide very soon whether I am to stay here, or go somewhere else in the south, or come to you.

I am very much pleased with the spirit of your letter, and assure you if I come money will not be the sole object, only secondary. ..... I already have a position here as you will see by the letter head, and one of the professors told me today they would raise my wages here if I would stay. But I expect, as I have already stated, to go to my people and I have been looking for some time at Tuskeegee with favor. So the financial feature is at present satisfactory. I shall be pleased to do all I can to cooperate with you in the broadening of the work and making it far-reaching in extent.

Enclosed please find the four year's course in Agriculture from which I graduated in 1894. I had special training in the ones I have marked, aside from the regular course. I would like to know if your course in Agriculture will be something of this kind, and what I will be expected to teach. I have been for several years making large collections along ecnnomic lines and should I come to you I will bring my collections and cabinets with me for use.

When would it be necessary for me to come ? I will finish my post graduate work this fall. If the course of study is not something out of my range, I will accept the offer. I shall await an answer with a considerable degree of anxiety as I must decide soon. May God bless you and your work.

Sincerely yours,

Geo. W. Carver

May 8, 1896

" ..... It affords me great pleasure to be identified as one of the faculty of Tuskeegee..... My post graduate work has been arranged to run through the college year which closes in November...However, if vitally important, I can arrange to come to you at your opening or shortly after .....

Geo. W. Carver

June 21,1896

"..... I have arranged to meet you at Waterloo on July 3rd and will be there Providence permitting. Two of my professors will endeavor to meet you at Spirit Lake. Professors Wilson and Wallace hope you can see them there .....

September 12,1896

" ..... Yours of a few days ago awaited me upon my return and should nothing prevent, I will leave here about October 7th, sooner if I can arrange to do so.

Very respectfully yours,

George.W. Carver

Thus it was that for George Washington Carver the chance he long had sought had come, and coming, had found him ready -- well-equipped, eager to begin his new work, and filled with a buoyant confidence and faith, not only in himself but in the eventual outcome of the days that lay ahead. He would begin his work at Tuskegee Institute, Tuskegee, Alabama, in October, 1896.

PART II

TUSKEEGEE

VI

TUSKEGEE INSTITUTE ORIGINS.

Tuskegee Institute had a very brief background of "ancient and honorable history and tradition" when George Carver arrived on its campus in the autumn of 1896. Less than twenty years before there had been no such school in existence, not even as an idea or a dream. But things had happened in the fifteen years between 1880 and 1896 -- interesting and astonishing things that were destined to be prelude to a far-reaching and ultimately important chapter in the saga of the "Little Red School-house" and all that it symbolises in American history.

At the close of the so-called Reconstruction Period following the Civil War, Alabama, along with other southern states, found itself face to face with the greatly neglected but now acute problem of wide-spread illiteracy. Some system or method of public education must be devised, a system providing more adequate schooling than had ever been possible in the little two or three ~~teacher~~ family or private community schools prevalent before the war. And the fact that approximately one-third of Alabama's total population was made up of Negroes but a few years out of slavery, and for the most part tragically illiterate, made it imperative that whatever provision was made for public education must include Negro as well as white children.

Gradually the State began to take action on the matter. In 1871 the University at Tuscaloosa re-opened. The following year the State A and M College at Auburn was established. And in 1873 two Normal schools were founded: one for white students at Florence, and another for Negroes near Huntsville. Three years later the legislature made provision for a State system of public education.

Against the background of these beginnings, Lewis Adams, a highly respected ex-slave resident of the little town of Tuskegee, in Macon county, Alabama, began to talk of a school for the training of Negro teachers, to be located in his home town. He himself had little "book-learning", but while a slave he had learned the tinsmith's trade, and during the war he had become also an expert shoe-maker and harness-maker. Unable alone to train enough young Negro men to meet the demands for these trades, even in his own locality, he began to urge the establishemnt of a school to train Negro youth to teach these and similar trades and industries.

In George W. Campbell, a former slave-owner merchant and banker of Tuskegee, Adams found an interested sponsor of his idea, with the result that two members of the State legislature from Macon county, W.F.Fox and Arthur L Brooks--whom the Negro vote had helped to elect --introduced a bill, passed in the 1880-1881 session of the legislature, which authorised the establishment of a Normal school for colored teachers at Tuskegee, with an annual maintenance fund of $ 2,000--an appropriation which was later increased. Included in the bill also was provision for a board of direction and control, a board which included Lewis Adams, an ex-slave, and two white men, Thomas. B. Dryer and M.B.Swanson-- thus instituting at its very beginning the co-operation between the two races which has characterised the school throughout its existence.

With the authorisation and initial maintenance fund secured, the next matter of importance was to find a man equipped to become director of the proposed school. Up in Virginia there was a school based on ideas and purposes similar to those now taking form in the minds of the Tuskegee school promoters, Hampton Institute, of which

General Samuel Chapman Armstrong was Principal. Born of American parents in the Hawaiin Islands, General Armstrong had long been familiar with the values inherent in the system of industrial training prevalent in Hawaii. During the war, as a commander of Negro troops in the Union army, he had become deeply interested in American Negroes, and with the aid of the American Missionary Association had established, in 1868, a school at Hampton, Virginia, for "the moral and industrial training"of Negro youth, incoporated in 1870 as The Hampton Normal and Agricultural Institute, with General Armstrong as president.

So it came about that from Alabama in 1881 the promoters of the proposed school at Tuskegee wrote to General Armstrong saying, in effect, "We need a man who will make a good principal for our school. Is there someone whom you can recommend"? And as it happened, there was at Hampton at that time a man whom the General could with confidence suggest-- Booker T. Washington, a man who, like George Carver, had been born a slave, and who had in early youth set out to secure an education determined, as he later said, " to let no obstacle prevent him from putting forth the highest effort to fit himself to accomplsih the most good in the world". Older than Carver by ten years or a little less, Washington,too, had begun his book-learning in a Webster's Blue-back Speller, and had begun early to earn his own living and secure his education. Working in salt and coal mines by day and going to school at night, he had finally entered Hampton, graduated there, taught school, and studied for a year at Wayland Seminary in Washington, D.C. At the time when the Alabama gentlemen sent their request for aid to General Armstrong, Booker T. Washington was back at Hampton, in charge on Indian students and Director of the night school.

In the story of his life,"Up from Slavery", Washington has given intimate accounts of the circumstances surrounding his choice as Tuskegee Institute's first Principal, and of his early experiences at the school. The Alabama gentlemen, he said, naturally expected General Armstrong to suggest some white man , but when the General wrote them that he knew no white man to suggest but could highly recommend young Washington for the job, an answer came back which in substance said, "Booker T. Washington will suit us. Send him at once". Fifty years later, an anniversary speaker at the Institute, commenting on this decision, declared "Nothing could be done without a leader, but in the providence of God the leader appeared,in the person of Booker Washington".

Arriving at Tuskegee in June, 1881, the young Principal, then 25 years of age, found no buildings, no apparatus, but "hundreds of hungry ,earnest souls who wanted to secure knowledge". He spent a month traveling through Alabama, studying the conditions among the people whom the school was to serve, advertising the new school, and making arrangements for its opening. What he saw during those months left him "with a very heavy heart", and served to strengthen his conviction that something more was needed than an imitation of "New England education as it then existed". Mere book education, a few hours at the time, would have little meaning or value for the children in the tumbledown shanties he had seen-- of this he was quite certain. And it was out of this conviction, coupled with his knowledge of the theory and practise of industrial education as carried on at Hampton under General Armstrong's direction, that this leader laid the sturdy foundations of the Tuskegee idea of the meaning of education--founda-

tions which were eventually to underlie one of the most significant and distinctive contributions yet made to American education.

On July 4, 1881, with thirty students and Washington as teacher, the school was opened in an old church and a tumble-down shanty beside it. After six weeks Miss Olivia Davidson, a graduate of Hampton and Framingham, came to the school as teacher and consultant with the Principal in all matters pertaining to the future as well as the immediate needs of the school. In a letter to his friends baak at Hampton, Washington describes his school, his immediate plans, and some of his hopes for the future:

"I opened school last week. At present I have over forty students, anxious and earnest young men and women. I expect quite an increase in September and October. The school is taught at present in one of the colored churches.... This building is not very well suited to school purposes, and we hope to be able to move to a more commodious place in a short time. The place referred to is on a beautiful and conveniently located farm of 100 acres, which we have contracted to buy for $ 500. The state pays for tuition. The farm I hope to pay for by my own exertions and the help of others here. As a rule, the colored people of the South are not and will not be able for years to board their children in school at ten or twelve dollars per month, hence my object is, as soon as possible, to get the school on a labor basis, so that earnest students can help themselves and at the same time learn the true dignity of labor. An institution for the education of colored youths can be but a partial success without a boarding department. In it they can be taught those correct habits which they fail to get at home. Without this part of the training they go out into the world with untrained intellects and their morals and bodies neglected. After

the land is paid for, we hope to get a boarding department on foot as soon as possible."

The old church was indeed "not very well suited for the purpose" of a school room-- its roof actually being so leaky thatbduring a rain it was necessary for a student to hold an umbrella over the Principal as he tried to teach ! But the farm of 100 acres was purchased, and paid for within five months by contributions from interested citizens both white and colored, and by proceeds from "festivals", concerts, and other festive occasions sponsored by the school. The plantation house on the farm had burned to the ground long since, but four out-buildings still were standing. These were repaired and the school lost no time in moving into its new quarters in the four ramshackle buildings originally used as a cabin, a kitchen, a stable, and a hen-house! Strange quarters indeed for an "institution of higher learning "!

Thus housed, however, teachers and students turned their attention to the cultivation of their 100 acres, with two main ideas in mind: First, to secure returns from it.("We atarted with agriculture", said Washington, " because we wanted something toneat !")And second, to provide training in agriculture for the students. Someone gave the schqol its first "livestock"-- an old blind horse. Someone else gave $ 100, a gift which Lewis Adams took and went out on a purchasing trip, returning with the astonishing array of a good horse, a second-hand lumber wagon, a harness, a plow, and a sack of corn to feed the horse on.

As the need for new buildings became imperative, the Principal instituted the industry of brick-making on the campus, determined to use each new need, each new necessity for expansion, as a means of introducing new industries and trades into the school curriculum, along with the essential instruction in book knowledge. To have the students

make brick and erect their own buildings would be to teach them brick-making and carpentry, as well as to give them opportunity for actual service in the building and expansion of their school. The school would get the benefit of their labor, said Washington, and at the same time the "students themselves would be taught to see not only utility in labor, but beauty and dignity; would be taught , in fact, how to lift labor up from mere drudgery and toil, and would learn to love work for its own sake," The idea of the Principal being "not to teach them to work in the old way, but to show them how to make the forces of Nature--air, water, steam, electricity, horse-power--assist them in their labor." In these words Washington set forth the idea and ideal that from the beginning has been inherent in the purpose of Tuskeegee Institute.

It was not an easy ideal to pursue. Severe opposition arose from many members of Washington's own race, who naturally associated manual labor with their "degradation of slavery." But this man had seen a vision and was willing to stake all he had of energy, insight, courage, indefatigable labor, and invincible faith on bringing it into reality. When the first three brick-burnings, in a kiln constructed by the students, failed completely, Booker T. Washington, with no money for new brick-making materials, went to the town of Montgomery, pawned his watch for $ 15, bought new materials, and started his students to work at brick-making again-- this time, fortunately, to succeed. Traveling into the north and wherever there was hope of success, both Washington and Miss Davidson lectured and spoke and interviewed, interesting benevolent-minded philanthropists in their school, and thus beginning the endowment fund which was eventually to make possible the development of the Institute into one of America's most widely-

known educational institutions..... So it was that during the years of the eighties and the early nineties, when George Carver, out on the Kansas plains and on college campuses at Indianola and Ames, dreamed of the day when he should return to the South and worked to prepare himself to be of service to his people, down in Alabama certain potent forces were also at work-- in those strange ways often indicative of an invisible Purpose and Design -- bringing into being an environment which was to be of immeasureable import in the eventual fulfilment of youg Carver's hopes and dreams.

Fifteen years passed--fifteen hard but rewarding years for Tuskeegee Institute and its founder. New buildings stood on the campus; new industries were a part of its curriculum. Almost a thousand students were enrolled, representing 24 states. A night school was in session for students who had to work by day for a living. The Farmers' Conference had been organised and annually brought to Tuskegee Institute hundreds of colored farmers who took home with them not only new knowledge of farming, but something of the Tuskegee spirit. A hospital and nurses' training school , as well as a Bible training school, had been added to the curriculum. The United States Congress had made a gift to the school of 25,000 acres of mineral lands in northern Alabama.

And now, in 1896, there was urgent need for the presence on the faculty of an expert in Agricultural Science-- a man well-equipped to teach the students the mysteries of the soil, and its mastery. Even more was there need for a scientist whose vision would be at one with the vision of Booker T. Washington, and whose abilities could be counted on to measure up to the continually increasing opportunities for ser-

vice that came knocking at the doors--the hospitable doors-- of Tuskegee Institute.

And once again, "in the providence of God", a man greatly endowed and excellently equipped to meet the need was found and brought to Tuskegee-- this time in the person of George W. Carver.

VII

THE FIRST TEN YEARS AT TUSKEEGEE (1896 - 1906)

Traditional in Tuskeegee campus lore is the story of the arrival of the new Professor Carver, on a Sunday afternoon in October, 1896. The student sent to the train to meet him --so the familiar story goes --reached the station to find the train arrived and gone. No anxious-looking newcomer was anywhere to be seen, but a little distance down the tracks a tall, slender, well-dressed man strolled casually along, stopping to examine the shrubs, the soil, the general aspect of things around the little railroad station..... It is a likely story, this being exactly the kind of thing this new professor had long been accustomed to do wherever he happened to be, whether the surroundings were new and strange ,or long familiar. A casual-seeming event,indeed, this Sunday afternoon arrival, with no prophetic hint that it was bringing to the south " a great scientist who was to give chemistry a new meaning, agriculture a new outlook, and industry a new alliance."

Arrived at the Institute, a mile outside the little town of Tuskeegee, Professor Carver established himself in Porter Hall, a residence hall for men students and faculty members, getting his meals with faculty and students in Alabama Hall. A little more than 30 years of age at this time, he was a striking-looking figure as he went about the campus in those early years. A photograph made during his late student days portrays him standing beside an easel on which is one of his flower portraits, his paint brushes and palette in his hands -- a dark-skinned, tall, very straight slim figure with long,slender-fingered hands; a sensitive,somewhat wistful mouth beneath a neatly-trimmed mustache; a strong chin; a broad high forehead above the far-looking, comprehending eyes of an artist and a seer-- a distinctly appealing face in which gentleness, discernment, patience and strength are plainly intermingled.

There was no agricultural building on the campus as yet, no laboratory equipment for agricultural science. But with this kind of situation Professor Carver was well able to cope, having had long experience with the necessity for making something out of practically nothing. With and office in Cassedy Hall, he set about working with his students to get together laboratory equipment adequate for their needs. "The equipment in the mind of a man," he told them, " is vastly more important than that in his laboratory" -- a saying typical of the teachings many generations of students were to hear from the lips, and deduct from the activities, of this new Professor Carver. Of old bottles, hollow reeds, pieces of wire, cracked pottery, old cups and saucers and the like, brought in by the students from scouting trips instituted by their teacher, was the first laboratory equipment created; of cast-off pieces of junk they made their first greenhouse. But the results served their purposes until better facilities could be attained, the avowed aim and intent of this school's department of agriculture being "to make the instructions practical as well as scientific, that the knowledge acquired by the student shall be of direct material aid to him in his future vocations as farmer, dairyman, and teacher". In addition to being the director of the department, Carver was instructor in Scientific Agriculture and Dairy Science, with five assistants who were responsible for courses in Practical Agriculture and Farm Management; Stock Raising: Truck Gardening; and Horticulture -- and for the dairy herd. Such was the organization of the agricultural department when Carver came to Tuskeegee, worthy of note here as the point of departure for his work, but soon to experience an expansion and growth that transformed it almost beyond recognition .

It is doubtful that anywhere else in America at that time could Carver have found an environment better suited to his needs, nor work more likely to develop to their full fruition his extraordinary endowments and excellent training , than he found here at Tuskegee Institute. In the first place, it was in the south, a fact which in itself was the fulfilment of one of his dreams. He had long wanted to return to the south, to live among members of his own race who, though not of his actual blood kin, were yet, he felt, closer to him in those intangible realms of backgrounds and inheritances than his closest friends of the white race could ever be. Linked with this fundamental desire simply to be among his "own people", was the gradually acquired determination to be of help to them if possible in their long struggle upward from ignorance and poverty.

In the second place, here at Tuskegee he found himself surrounded by stark, tragic instances of the very needs he had long since envisioned and set out to help overcome. Here, within walking and driving distance, were Negro families living in the conditions that had left Booker T. Washington "with a very heavy heart", conditions not unusual but typical of poverty-stricken farm families throughout the entire south. Nor was the need for the help which Science could bring to Agriculture confined to Negro families alone -- not by any means, for worn-out,depleted soils and meagre starvation harvests were common also on the farms of once-wealthy plantation owners,out-comes not only of the war but of the debilitating one-crop system prevalent in thesouth. It was inevitable that the presence of such need all about him should act as a continual spur to a scientist of Carver's nature-- a man who had added to his inborn love of the soil and its fruitage careful years

of patient study of its nature, its needs, its diseases and their treatments-- its possible harvests and their potential economic values in terms of human bondage and freedom.

Another factor of prime importance for Carver was the fact that here at Tuskegee he found already organised and functioning channels through which his store of knowledge, skill, and understanding might be made available to farmers in need of it and to farming in general. Through his classes and general direction of the department's work he was in direct daily contact with students from many farm homes, many of whom would go back into rural communities to teach. The Annual Farmers' Institute, already established by the Principal, gave opportunity for lectures, demonstrations, exhibits, and personal talks with hundreds of Negro farmers, many of them influential in their home communities.

Moreover, Tuskegee Institute was already widely known in America, by reason of the clear, far-seeing vision and the earnest, effective eloquence of Booker T. Washington. From his speech before the National Education Association in Madison, Wisconsin, and his great "Let-down-your-bucket-where-you-are" address at the Atlanta Exposition in 1895, Washington had emerged as a man of giant stature, a leader of his race, and a man whose leadership could be confidently trusted by white and colored races alike -- a man of whose Atlanta address newspapers had said "A Negro Moses stood before a great audience of white people and delivered an oration that marks a new epoch in the history of the South". Inevitably such acclaim for its Founder and Principal awakened interest in his school, and set up a stream of visitors interested in seeing it at first-hand, ~~which had brought~~ bringing about a wide-spread familiarity with the Institute's ideals, its purposes, its work, and its desire to be of service to both races.

In addition to these, during his first year at Tuskegee Professor Carver saw yet another channel of communication established for him, one which was to come to be, in many respects, the most important one of all. At the request of Booker Washington, the Alabama Legislature in its 1896-97 session passed a Bill " to establish a Branch Agricultural Experiment Station for the colored race and to make appropriations therefor -- to be located at Tuskegee and run in connection with the Normal and Industrial Institute", the Board of Control to include the State Commissioner of Agriculture, the president of the A and M College at Auburn and the director of the Experiment Station there, and members of the Tuskegee Institute Board of Trustees resident in Tuskegee. This Board was to "cause such experiments to be made...as will advance the interests of scientific Agriculture.....such chemical analyses as are deemed necessary." $ 1500 out of the Agricultural Fund was appropriated for equipment and improvement, "Tuskegee Institute to furnish all necessary lands and buildings for the use of said station and school". Carver was made Director and consulting chemist for the Experiment Station -- a position which was to open up to him the lines of communication through which he was to make many of his major contributions not only to Science, but to various other fields of human endeavor and achievment.

Over and above and around all these highly desirable factors in the Tuskegee Institute environment, there was yet another which should by no means go unmentioned here-- an intangibale factor, yet one of much importance to George Carver, namely, that indescribeable reality sometimes referred to in jest as "campus atmosphere" : the stimulating mixture of care-free gaiety and poignant concern, failures and achievments, discouragements and devotions; the constant impact and intimate

interplay of ideals and emotions, maturity and youth that are forever incident upon the activities and relationships involved in the daily life of a campus. It was a congenial air for this new professor; for six years at Simpson and Ames he had lived in the midst of it, breathing the breath of its life. He felt at home in it now at Tuskegee.

In the friendship and constant confidence and support of Booker T. Washington, Carver found at Tuskeegee yet another factor of immense importance to him, not alone in his professional work at the Institute and elsewhere, but in his own personal growth and development. From their first acquaintance to the day of Washington's death there existed between these two men a basic sense of spiritual kinship and fundamental understanding which made their association a steady source of mutual stimulation and encouragement. Differing greatly in their dominant traits and native endowments, and widely different in their individual fields and methods of work, they yet were in close accord in their foundational concerns, their basic conceptions of the meaning of life and its purposes, their unswerving dedication to the practical applications of the teachings of the Christian religion. They were in complete accord, moreover, in their ideas concerning the needs of their own race, their convictions as to the beauty and dignity of common daily toil, their own habits of ceaseless industry, and their steadfast devotion to the ideal of service to their fellow men, of whatever race or society.

In the midst of such a congenial environment, a year sped swiftly by. The Slater-Armstrong Agricultural building now stood ready for occupancy, and in November, 1897, Professor Carver had the pleasure of having his former teacher, the Hon. James Wilson, then United States Secretary of Agriculture, come down to make the address at the formal dedication of the building. It was undoubtedly an occasion of gratifi-

cation to the Secretary no less than to his former student. Now the Institute department of Agriculture and the new Research and Experiment Station had an actual house and home on the campus, a much-needed home, obviously, for the following year's bulletin from the Institute describes this department as offering 17 courses, among them such subjects as Economic Entomology, Botany Cryptogamic, Principles of Heredity, Agricultural Chemistry, and Vegetable Pathology -- in addition to such immediately practical courses as Dairying, Livestock, and Market Gardening.

Indicative of the rapid expansion not only of this particular department , but of the school as a whole, and suggestive of the widening recognition of its potential national importance, is the fact that in 1898 it was visited by no less a personage than the President of the United States. Booker T. Washington had early formed a secret resolution that he would endeavor to "build up a school that would be of so much service to the country that the President of the United States would one day come to see it." Thus, learning that the President would come to Atlanta for the Peace Jubilee celebrating the close of the Spanish-American War, he invited Mr. McKinley to come and see his school. The invitation was accepted, and "the morning of December 16,1898, brought to the little city of Tuskegee such a crowd as it had never seen before" . The President and Mrs. McKinley and all the Cabinet members except one were there, most of them with their wives or other members of their families; the entire Legislative Assembly of the State of Alabama, then in session at Montgomery, adjourned and came; citizens for miles a round, both white and black; the Governor and other State officials all were there for the great and gala occasion. There were parades, speeches, music, and toasts galore, and Professor Carver, with

other members of the faculty and student body heard President McKinley say "Tuskegee Institute is ideal in conception, has already a large and growing reputation in this country, and is not unknown abroad. I congratulate all who are associated in this undertaking for the good which it is doing".

There were many such "great occasion days" at Tuskegee Institute--other presidents came : Theodore Roosevelt(Later a member of the Institute Board of Trustees) in 1905; Coolidge, as vice-president, in 1923; Franklin D. Roosevelt in 1939. Almost from its origin the school has frequently known such great occasions. For Professor Carver, however, the ordinary in-between days were from the first continuously full and interesting. His work demanded long hours of concentrated study and experiment, constant daily devotion to his various tasks.

Out on the red Alabama hills and into the surrounding fields and woods he went at dawn each day, carrying his botany can, gathering specimens and practical materials for his own and his students' study. Samples of soils for analysis and experiment; specimens of plant diseases and harmful insects-- practical, useful, near-at-hand illustrative materials for his class room and laboratory. This strange man striding across the hills and fields, his arms filled with branches, his botany can slung over his shoulder, stopping now and then to stand for long moments gazing intently at a leaf or a lump of clay, was a strange sight to the residents of the Tuskegee vicinity during his early days there. Who was this man, and what was he doing ? There were various speculations -- perhaps he was one of those "herb doctors" out gathering his supplies ! Some even brought their children to him to be treated for rickets or measles ! But it was not long before Tuskegee residents came to know who this strange man was, and not only to understand what

he was doing out there on the hills, but to avail themselves of the results of his activities.

Noticing the number of people who came to the school to ask Professor Carver questions concerning plants, Booker Washington said to him one day "How do all these people find out that you know so much about plants?"

"Well, it was this way", Carver replied. "Shortly after I came here I was going along one day with my botany can under my arm, looking for plant diseases and insect enemies. A lady saw what she thought was a harmless colored man with a strange-looking box under his arm, and she stopped me and asked if I was a peddler. I told her what I was doing; she seemed delighted and asked me to come and see her roses, which were badly diseased. I showed her what to do for them, in fact, sat down and wrote it out for her. In this way, and several other ways, it became noised abroad that there was a man at the school who knew about plants, and people began calling on me for information and advice."

"I myself remember", Washington continues, in his narrative of the incident, " that several years ago a dispute arose downtown about the name of a plant; no one knew what it was. Finally one gentlemen spoke up and said that they had a man out at the Normal school by the name of Carver who could name any plant, tree, bird, stone, etc. in the world, and if he did not know, there was no use to look any further ! A man was put on a horse and the plant brought to Professor Carver. He named it and sent it back. Since then Professor Carver's laboratory has never been free from specimens of some kind."

An interesting little sidelight on the habit even the campus children had of "bringing their problems to Carver" appears in a story that Mr. Davidson Washington, son of the Principal, was fond of relating . All of the children around the campus, he said, children of faculty members

and other families in the Institute community , were convinced that Professor Carver could do practically anything, that he knew almost everything, and could remedy almost anything that was wrong. He himself once had a pet goose of which he was very fond. One day it was discovered that this goose was sick.

"Father told me that I had better take the goose to Professor Carver and let him find out what was wrong", he said. "I meant to do it, but kept putting it off and forgetting it. Finally one morning Father came in and said that it was too late to do anything now; the goose was dead. 'Well, I'll take him to Professor Carver anyhow,' was my confident reply. 'I know he can make him come alive again .' And I was perfectly certain that he could ! "

For a dead pet goose there was probably little that Professor Carver could do, but there were many problems and questions -- and important ones -- about which he could, and constantly did, do something. The problem of poor land, for instance. Soon after his arrival Dr. Washington had expressed to him the hope that something could be done to beautify their campus. "The land is very poor in places," he had said. "We haven't been able to get grass to grow at all on some of it. Do you think you could ? " The beautiful rolling green slopes on the campus today offer their perennially verdant testimony to the fact that this land would bring forth grass when a man who knew what to do for it took it in hand.

The problem of poor soil and worn-out land being a basic one in agriculture, it was toward soil building and renewal that Professor Carver directed much thought and experiment when he first came south. Using 10 acres of soil so poor that for years, even when highly fertilised in the method considered most productive in that day, it had con-

sistently produced a net loss annually of $ 16.25 per acre, he experimented with crop rotation and practical fertilisers composed largely of leaves and swamp muck and various other similar provisions of Nature usually left to go to waste unused. At the end of the first year's work on this soil, its net gain per acre was $ 4. A few years later he had grown a 500-pound bale of cotton on one of those acres, and on another of his "poor-land" acres had harvested a year's yield of 80 bushels of sweet potatoes, in addition to another crop.

Continuously carrying on such practical demonstrations of what could be done with soil when its nature and needs were understood and rightly cared for, Proessor Carver had actual visible evidence of the truth and efficacy of the theories and suggestions he was constantly setting forth to his students in the class room or at work with him on these experiments; to the farmers who came to the monthly and annual Farmers' Institutes held on the campus ; and to the wider circle of southern agriculturists who made use of the service available at the Research and Experiment Station, a group which from the establishment of the Station knew no "color line" -- queries and requests for service coming in from white as well as from Negro farmers.

To his insistent teaching and demonstrations of the needs and values inherent in building up worn-out soil , Carver added as a constant and urgent corollary the neccessity for crop rotation and diversification-- obvious and widely practised teachings in this day, but new enough to seem somewhat "strange doctrines" in the agricultural practises of the south of forty years ago. Strange doctrines, perhaps, but timely teachings, preceding--as they did -- the disastrous attack of the deadly boll weevil on southern cotton fields.

"Plant something else besides cotton", Carver said. # Plant sweet

potatoes. Plant peanuts. These are easily grown and will help build up your land. It is worn out with growing nothing but cotton." It was a teaching greatly needed when the boll weevil came !

But there is more to farms and farming than these matters of the soil and its maintenance, plants and their yields, as important as these things undoubtedly are. There are also the concerns of the family and household -- the ugliness or beauty of a home and its surroundings;the right kinds of food for the growth and sustenance of human bodies, proper clothing to cover and adorn them. And such questions as these, alongwith those concerned with the broader-scaled farming activities, were included in the work of the agricultural department at Tuskegee, especially in the monthly Farmers' Institutes, and in the larger Annual Farmers' Institute which has been one of the big events of the school year since Booker T. Washington planned and inaugurated the first one in 1892. In the Carver museum on the campus today there is a colorful exhibit of canned fruits and vegetables used in some of his demonstration work at these Institutes early in the century -- still delectable to look at, and significant as evidence of some of the earliest farm and home demonstration work actually carried on in America.

In these Institutes Professor Carver found opportunity also to make use of the tatting and crochet patterns and designs he had shown to Mrs. Liston and other friends of his Kansas and Iowa days. Farmers' wives found them interesting, especially as Professor Carver discussed these and other possibilities that might make a great difference in the appearance of home interiors. Having actual samples and illustrations, he could show these women how attractive center pieces, table xxxxxx covers, and the like could be made from such humble materials

as old tow bags, for instance -- when a few touches of handwork were added as border or embroidery. Nor were object lessons in clothing and "fine feathers" omitted ! Visitors in the museum on the campus today see an exhibit of the actual feathers used--feathers from common farmyard fowls, but dyed or curled or artistically arranged to be used for the adornment of fetching millinery; there is one whole hat made of feathers-- a little brown turban. No wonder these Farmers' Institutes consistently drew an average monthly attendance of 75 !

As follow-up work after the Institutes, and as further extension activity, Professor Carver now and then in his early years at Tuskegee would put a few of his demonstration materials in a buggy on a Saturday afternoon and set off--a student with him, usually -- to spend the week-end in some rural community, visiting people in their homes and speaking on Sunday morning in one of their churches, where he could always be sure of an interested audience , discussing with these people in the isolated areas the things they might do to improve their homes and--incidentally--themselves. Dr. Washington had done such visiting since he first came to Alabama, and believed firmly in its power for good -- a belief and a practise which Carver actively shared.

To reach the wider circles of farmers and agriculturists who neither came to the campus Institutes nor could be reached by such week-end visiting, Carver began, even as early as 1898, to send out from the Experiment Station bulletins and leaflets containing suggestions and advice to farmers based on tests and experiments made at the Station or in connection with the agricultural department's work. Obvious in the first bulletin was his intention that this Station should give information and advice of sound,practical nature, useful to the most humble farm family as well as to Agriculture in general. The title of the first bulletin,

published in 1898, was "Feeding Acorns". Any farmer, however poor, had access to the acorns that fell from the trees upon the ground, and acorns were good food for livestock. Hence, first, a bulletin on feeding acorns. The second, also published in 1898, was concerned with "Experiments with Sweet Potatoes", a crop easily grown and valuable for food not only for livestock but for the farmer's family.

Since the appearance of the first two pamphlets, a long series of similar ones, written with but few exceptions by the Director himself, and printed by students in the Institute's print shop, have been sent out from Tuskegee, finding their way to the remotest corners of America and to various countries abroad. The one on "How to Grow the Peanut and 105 Ways of Preparing it for Human Consumption", probably the most popular of all the series, has gone through six editions and revisions. Written in simple, direct, scientifically accurate language, these bulletins have been a major means of communication between Carver, the agricultural chemist, and the farmers and agriculturists of the south. Logical and clear in outline, practical in intent, they afford useful information on farm and household concerns not only, but interesting insights into the habits of thought and trends of mind of the man who wrote them, as well.

The bulletin on "How to Grow the Cow Pea and 40 Ways of Preparing It as a Table Delicacy" begins, for instance, by saying "Among the many rich blessings especially given to the south, there are but few, if any, that stand out more prominently than the Cow Pea, for the following reasons...." Then follow ten reasons having to do with the cow pea's value as a soil-builder and as a food for man and beast; its adaptability, its dependability, its various other desirable characteristics, concluding with this eleventh reason:" The cow pea rightly handled is both a

bank and a mortage lifter to the poor man". The history and origin of the cow pea then are given, its varieties listed, and then there is consideration of climate,soil, selection of seed, planting, inoculation, cultivation, and harvesting. The middle section of the bulletin is devoted to the cow pea as food, with discussion of its food values and instructions for its preparation for both the livestock in the stables and the family around the dining table. "As food for man", we read, " the cow pea may be prepared in a sufficient number of ways to suit the most fastidious palette" -- and forty recipes are given, with explicit instructions in the art of satisfying "fastidious palettes" by means of the cow pea, recipes ranging from "Hopping John", "Pea Bouillon", and soups, on through fritters, salads, "Chartreuse of Peas", "Dried Pea Roast (Very fine) ", and "Cow Pea Custard Pie".

By way of conclusion, this Cow Pea bulletin discusses diseases which may attack the pea, with suggested remedies. Here we come upon such botannical terms as Heterodera Radicicola, Cercospora Cruenta,and Heliothis Armigera, etc., but in parenthesis following these terms there is invariably the translation into the common idiom : (Root Knot), or (Smoky Spot), or (Boll Worm), etc. There is a final caution concerning "Insect Enemies" of the Cow Pea, and what to do about them, and then the expressed hope that farmers will begin to plant more and more acres each year in this very valuable crop.

Not all of the bulletins follow this particular out-line, of course; not all of them are concerned with particular crops, for that matter. They deal also with such things as the pickling of meat, how to build up soil, the raising of hogs and other livestock, various products which may be derived from farm crops or wastes, and on through a long list of titles. Now and then, tucked away in a paragraph of one of these

little pamphlets, there will appear a revealing back-stage glimpse of Professor Carver as he went about the work of experiment and testing which preceded the writing and publication of the bulletin. In the popular one on the Peanut, for instance, there is this interesting paragraph: "Below are given 105 ways of preparing the peanut for human consumption, with the hope that every farmer will learn to appreciate them and raise large quantities for his own consumption; and also with the hope that the city folk will find the diet not only wholesome, satisfying, healthful, and appetizing, but very economical. Fourteen recipes were selected from this number, and a five-course luncheon served to ten food specialists; and each one without exception was enthusiastic over it, and said that it was the most satisfying luncheon he or she had even eaten." But little imagination is required to visualise the ten food specialists sitting down to their five-course luncheon of peanut dishes prepared from Carver recipes, and exclaiming upon the deliciousness thereof ! It must have been an interesting occasion.

These little, unpretentious bulletins have been in constant demand all during the more than forty years since the first two made their first public appearance, and it is not strange that they should have been. For while they are, of course, valuable as reports from a Research and Experiment Station, and helpful as sources of tested, useful information and suggestions concerned with better and happier living in both rural and urban households, they are something more. They are, in fact, direct personal messages from a humanitarian-minded scientist intimately acquainted with the habits and resources of Nature on the one hand, and with the daily needs of men, on the other. Intimations appear now and then of the fact that Professor Carver himself felt in the preparation of these bulletins a sense of personal authorship beyond the

mere duty of professional reports and suggestions -- in his dedication found in a bulletin on the Tomato, for instance, a dedication which reads :

> "To my esteemed friend and co-worker, Mrs. Adella Hunt Logan, who was tireless in her efforts to help the farmer and his family; and who saw in the tomato a panacea for many of his ills; and who contributed more data of real value along this line than any one else with whom I have come in contact, I affectionately dedicate this bulletin."

These were no idle words, for Mrs. Logan was one of Professor Carver's most cherished friends in the Institute community. As the wife of Mr. Warren Logan, who was for many years treasurer of the School and often its acting Principal in the absences of Washington, she was among the group of earnest devoted members of the faculty and staff who labored tirelessly with Booker T. Washington to bring his dreams for the school into reality. In Mrs. Logan ,Professor Carver found a friend of kindred artistic discernment and appreciation, a woman to whom he could bring his paintings for sincere and sensitive appreciation and criticism.

"Sometimes she would make no spoken comment at all", he has said, "when I showed her a painting I had just completed. She would just stand and look at it for a long time,and say nothing. And then I would see that there were tears in her eyes. She didn't need to say anything".

Such a friendship meant much to George Carver, for,while he was friendly with many people, his circle of actually intimate friends was closely drawn and small. In the midst of this small and intimate group he was freely himself--gay, entertaining, and witty; or quiet-spoken and thoughtful, sharing his deepest conclusions, according to the mood or the demands of the occasion. But in crowds or among strangers he was shy and with-drawn,seldom of his own accord aggressively active in the matter of going out to make friends or new acquaintances--personal

ones, that is. Professionally, of course, it was a different matter.

"Although Professor Carver impresses everyone who meets him with the extent of his knowledge in the matter of plant life", Dr. Washington said of him, "he is quite the most modest man I have ever met. In fact, he is almost timid."

Being by the very nature of his unique gifts and interests, as by the constant demands of his work, destined to spend much time alone, he remained somewhat timid and shy in the presence of strangers or of crowds, preferring the quieter small circle, or conversation with one or two close friends-- which is not to say that he did not make many friends; he did. "He learned from books when he could get them", to quote his friend, Washington, again;"learned from experience always; and made friends wherever he went". Yet the friends came not as the result of his aggressive seeking, but as concomitants, drawn to him by his distinctive gifts, interests, and activities, or by the magnetic appeal of his unusual personality.

Not long after he came to Tuskeegee there was a young woman to whom he felt strongly drawn, and a dream of ultimate companionship began to take form in his mind. But he happened one day, in the course of a group conversation, to hear her express certain ideas and attitudes so completely at variance with his own that there was left of his dream but its shattered fragments and a wound in his sensitive spirit. He had always felt a keen sense of pride in being a member of his own race;this young woman,obviously, did not. There could be no ultimate companionship built on so basic a difference as this. Her death a few years later led him to the conclusion, expressed long afterward, that perhaps it was well that things came out as they did. "I believe in 'What God has joined

together, etc.'", he has said to close friends now and then. "But", he continues, after a brief pause, "what God doesn't join had better be left unjoined." And he has never married.

In the midst of his busy life at Tuskeegee, he found time to keep in touch with his Iowa friends by occasional correspondence. To the Milhollands, on October 2, 1901, he wrote:

> "Your esteemed favor of July 23rd reached me a few days ago and I was indeed glad to hear from you ..... I think of you often and shall never forget what you were in my life, how much help and real inspiration you gave me. You, of course, will never know how much you did for a poor colored boy who was drifting here and there as a ship without a rudder. You helped me to start aright, and what the Lord in his kindness and wisdom permitted me to accomplish is due in very great measure to your real genuine Christian spirits. How I wish the world was full of such people; what a different world it would be.
>
> Should I ever come so near you again, rest assured I am coming to see you, and I plan to come to Iowa during some of my vacations. Our school opens on the 10th of this month. We have already admitted over a thousand students. I am glad for your words of cheer and good-will. These from those we love always make life much easier.
>
> Must close now as I have about 20 other letters to answer aside from my other duties. May God continue to bless and help you...Love to all.....
>
> Yours very gratefully,
> Geo. W. Carver "

In 1903, when Rockefeller Hall was erected, a residence hall for men which was the gift of John D. Rockefeller, Professor Carver moved to an apartment on the first floor there, with living room, (or "Den") bedroom, bath, and kitchenette--continuing to get his meals in the School dining hall, the meals, that is, that he did not prepare for himself from his own menus and recipes! Soon after his removal to Rockefeller Hall, landscape panels in oil appeared on the walls of the corridor leading to his apartment; books lined portions of the walls of his living room; glass cases containing his collections of stones, micas, etc., stood on the tables, the beloved rainbow rock of his boyhood among them; paint-

ings and pieces of handiwork hung on the walls; his mother's spinning wheel stood by the fireplace; plants bloomed in the windows. They were the rooms of an artist, a scientist, a teacher--rooms that were to gather unto themselves a great treasure of memories as the long procession of the years went by.

Students were free to come to him here, or in his office, or anywhere, for that matter. "Perhaps one of the finest things about his life at Tuskeegee is the constant access the students have for personal contact with him", one of them wrote. "When advice is sought by the humblest student there is no red tape to encounter in entering his office, no hesitancy in approaching him on the street, once you have met him. One of his characteristic pastimes is teaching the students how to train the wrinkles in their foreheads: 'Always lengthwise,never up and down'"!

Upon occasion he could be as gay as the gayest of them, and knowing ~~that~~ they could depend on this, his students concocted many pranks to play on him. A group of them one day, for instance, took the body of one bug,the legs of another, the wings of another, the head of yet another, and,pasting them carefully together on a bit of cardboard, evolved a very strange-looking new insect which they took to the next class recitation . Just before the recitation began, the most pious-appearing student in the group came up bearing the new bug, and with seemingly serious concern, asked the Professor to identify this new specimen they had found. Equally serious, Professor Carver looked at the bug carefully, thought over the problem for a moment, and said,"Well,this, I think, is what we would probably call a Humbug."!.... It is entirely probable that the scheduled recitation did not begin for some moments thereafter !

These gay pranks, sometimes even instigated by the Professor him-

self, were likely to break out in the most unexpected places, even in the Sunday evening Bible class, a volunteer study group with Carver as teacher which met for years just before the evening chapel service, sometimes with an attendance of 200 or more. Science and the Scriptures, he would often say, agree fundamentally for those who have thorough knowledge of both, but may appear quite contrary to those who are lacking in such knowledge. "Many revelations were made by his detailed explanations and scientific demonstrations", said one of his students. Such a demonstration took place on the night when the lesson concerned the destruction of the wicked cities of Sodom and Gomorrah, a demonstration which added another incident to the beloved lore of Tuskeegee campus life. The story of the wicked cities had been told, explanations made, time given for questions, etc. Professor Carver toyed with certain articles on the table, carrying on a running line of comment the while. "These wicked cities, and what became of them ? " Suddenly fumes and flames and seeming fury rose up in wrath from the table before them, and the youthful Bible students, choking and coughing from the chemical fumes that quickly filled the room, took precipitate departure. But it is unlikely that they soon forgot the lesson of Sodom and Gomorrah !

"He understood boys as few men do", one of his former students has said. "And his accuracy in everything impressed us all as students, especially his accurate observations. More than that, he was like a father to many of us "..... thus were they accustomed to speak of him. Those, that is, who actually knew him. There were many who never did, who never came close to him at all, for among ~~his~~ the students, as among members of the faculty and his wider acquaintance as the years went on--

there were many to whom he remained an enigma, a very peculiar person with a strange,high-pitched voice, an oddity and a curiosity--even as he had to many of his fellow students at Ames.

Any form of dishonesty or deceit, or any attempt at "grand airs", was likely to draw from him a stinging rebuke delivered in no uncertain terms. So was it also with laziness and slipshod habits of work--facts which may perhaps have kept some of his students from coming to him freely, or from feeling comfortable in his presence. Nor was he always patient with mediocrity . But any sincere need, any honest effort, was certain to receive his careful attention, his understanding help and encouragement. And any evidence of creative artistic affort, scientific curiosity, or inventive turn of mind found in him a quick and spontaneous enthusiasm and a generous nurturing. Students giving evidence of possessing even a small spark of such trends of mind or effort were immediately within the inner circle of Professor Carver's keen interest. To the duller minds there remained his compassion and understanding, and--as a rule--his patience; but to the slipshod or the dishonest, his contempt. It is not amazing, then, that recorded student opinions of him should exhibit a wide variance -- that there should be many who remember gratefully today the many memorable hours spent in talking or working with him, or the fun they sometimes had with him; many who say "He was like a father to us, and more"; yet many, on the other hand, who say"I never did really know him"-- comments which have their counterparts in the wider circles of his acquaintance extending far out beyond the Tuskeegee Institute campus.

Despite the long hours required of him by the daily demands of his various tasks, he yet found time, as at Simpson and Ames, to take part in the extra-curricular affairs which figure so largely in the total

content of life on any school campus. In general, the pattern his days gradually assumed during these earliest years at Tuskeegee was to characterise his habitual daily regime for many years to come. One practise in particular was of such paramount importance to him, and became so essential a part of his day that nothing was allowed to interfere with it unless some emergency entirely beyond his control arose to necessitate some change. This was his habit of rising at dawn to spend the early hours of the day in quiet, thoughtful, prayerful communion with the Great Creator out among the lovely, interesting, extraordinary things of His on-going creation, somewhere out of doors.

Here in the quiet of the woods and fields, the still, small voices of the trees, rocks, red clay earth, leaves, and flowers; the newly-awakened birds, the shy little woods animals, the multitudes of minute forms of life -- voices rarely heard at all by the rank and file of their human kin -- were distinctly audible in the dawn to George Carver, speaking to him of their Father and invisible Creator, God. "A Nature mystic" some have called him, seeking to explain Professor Carver's unusual gifts of spiritual discernment and power. He himself would scarcely think of his religion as being in anyway "mystic" -- so intimately and naturally is it a part of his entire daily experience. Foundational in every area of his life for years has been the simple but profound basic assumption that back of all visible creation there is a loving invisible Creator who is constantly working out His infinite and benevolent purposes in the world through human minds and hands. Religion with him, then, is simply the simple but compulsive habit of trying to understand what the Great Creator wants done, then doing it with all the knowledge, intelligence, understanding, and skill one may possibly command. But the human partners in this eternal enterprise must keep in close touch with the Creator if they are

to understand His purposes and be the means by which they are fulfilled in the world.

There are many ways in which men may come to know the Creator's purposes for them, may come to have a sense of working in partnership with God. This Professor Carver has often declared. But as for himself, the pathway leading most directly into a stimulating and sustaining certainty of the presence of God is habitual daily contemplation, investigation, and study of His visible creations in the fascinating world of Nature. "You will come to know more and more about God", he has said again and again, "as you study and learn to understand the things that He has made". Thus it was that when Tuskeegee residents saw Professor Carver returning from his morning walks, his hands filled with twigs, his botany can under his arm, they saw something more than a scientist and teacher with specimens for laboratory and class-room experiment and study. They saw also a man equipped for the day with a sustaining assurance that the Great Creator, his invisible Partner, would work through him that day to carry on to further fulfilment some portion of His eternal purpose for the universe which "through all the ages runs". It was a powerful equipment for a teacher and scientist to bring back to a class-room and laboratory, or anywhere else, for that matter -- as the years were abundantly to prove.

On through the day's schedule, then, he would go, wherever his work might call him--into class room, laboratory, office, greenhouse, fields; or to chapel exercises, committee meetings, entertainments-now and then to an hour with his painting. After supper it was his custom to read his mail for the day, attending to any letters that needed immediate replies, writing the answers in his own hand. Then to sleep, as early as possible, to be ready to rise again with the dawn.

~~daily schedule~~

~~[illegible] general pattern [illegible] assumed, and~~

In 1906 there came another of the "great occasions" at Tuskeegee--this time the celebration of the Institute's twenty-fifth Anniversary. Many notable figures in American life were present to take part in the celebration -- President Eliot, of Harvard; Mr. Andrew Carnegie; Bishop Galloway, of Mississippi; President Abercrombie, of the University of Alabama; Secretary of War Taft, and other distinctive men of that generation, all present as speakers or guests. There was abundant cause for celebration, for the school which had started out 25 years before with one teacher, 30 pupils, and an old church and shanty as buildings, was now an institution of 1,590 regular students; 156 teachers; 83 buildings; 2300 acres of land near the campus; and an endowment of $ 1,225,664 in addition to the 22,500 acres of saleable land granted by the United States Congress.

Professor Carver, reporting on the work of the Research and Experiment Station during its first ten years of life, said that experiments had been carried on with sweet potatoes;peas,beans, and corn for forage; 13 varieties of cotton; Irish potatoes; onions; vetch and crimson clover; ~~xxx~~ and ~~[illegible]~~ peanuts. He had issued 7 bulletins and 16 leaflets; had distributed seed samples to farmers and to school gardens; held monthly Farmers' Institutes on the campus with an average attendance of 75. On 20 trips through the county he had spoken to 1,000 people. There had been annual Farm Fairs, newspaper articles written and published in county and national papers; bulletins sent to 10 foreign post offices; 115 samples of soil analysed for farmers and written instructions given as to quantity and kinds of fertilisers needed. As to work outside Alabama, "the Director", he said," has this year had 7 calls from Georgia, 1 from Tennesee, and 1 from Florida." And agricultural wagon was being fitted up in which

"lecturers, demonstrations,and exhibits would be carried around".

"Our two most urgent needs", he wrote, in concluding his report, "are first, a small barn where tools could be kept; grain, grasses, forage, and xxx cotton stored. Now our tools are of necessity kept in a dark wet basement where they constantly rust,where we cannot dry anything, and where it is too dark to weigh with much accuracy. The other thing we need is a wire fence around the field so the crop could be seen to much better advantage along the road. Such a fence in the end would be much cheaper than the cumbersome boards which now surround it and are nearly always out of repair."

Modest requests, indeed, to follow such a report -- a small barn and a wire fence ! But they were characteristic of the man who made them--- a man whose sense of thrift and economy was out-raged to see good tools going to rust and ruin for the simple lack of a dry shelter to house them; a scientist whose habitual accuracy demanded a work-room light enough to make possible accurate weights and measurements; and an artist whose love of beauty and order was constantly offended by the sight of a tumbledown board fence surrounding the lovely fields whose growing crops and autumn harvests should be visible to passersby...characteristic requests, coming from Professor Carver.

And so it was that, with the celebration of the twenty-fifth anniversary of the school, his first ten years at Tuskeegee Institute came to a close -- ten years which were to be but as a brief prelude, [redacted], a brief intimation of the major themes in the moving [redacted] symphony of life and work his coming years would compose.

VIII

DISCOVERIES

(1906 - 1916)

Three years after the celebration of Tuskeegee's Twenty-fifth Anniversary, the agricultural department and the Research and Experiment Station had completely out-grown their quarters in the Slater-Armstrong building, and 1909 saw a new Agricultural building erected on the campus-- Milbank Hall, the gift of George Eastman. On the second floor of this four-story building there were rooms set apart for Professor Carver, a confortable,roomy office, and a spacious,well-equipped laboratory which came in time to be affectionatly referred to all across America as "God's Little Work-shop" - a title well justified by the astonishing ~~seeing miracles~~ things that eventually took place within it.

The active supervision of the agricultural department was now in the hands of Professor George R. Bridgeforth, with 18 assistants, in order that Carver might be free to give his time more fully ~~and freely~~ to the Research and Experiment work, the increasing requests for research, lectures, and demonstrations that were coming in from an ever-widening area. The school farm now included 2,400 acres, with 1,000 under cultivation. The enrolment of the Institute had reached 1,702-- a student body representing 38 states and 15 foreign countries. The wagon which Carver had mentioned in his Anniversary report as being fitted up for carrying "lecturers, demonstrations, and exhibits around" had been out on the roads and around in the various communities within reach of the Institute for several years, the Tuskeegee "Movable School of Agriculture". Determined to do everything possible to extend the school's benefits to those un-

had
able or unwilling to come to its campus, Dr. Washington conceived the idea of having a "school on wheels", equipped with practical demonstration materials and traveling teachers, to go about among the people and teach them in their homes and communities, as he and Professor Carver had done vicinity.
~~on their week-end~~ for years on their week-end trips throughout the ~~xxxxxx~~ ~~xxxx~~ With plans for such a wagon drawn by Professor Carver, Washington was able to interest a friend, Morris K. Jesup, of New York, in providing the money to purchase and equip such a vehicle. So it was that the "Tuskegee Student" in November, 1906, reported that "The Jesup Agricultural Wagon, the first 'Movable School', started from the grounds of the Tuskegee Institute on its mission of usefulness May 24, 1906, under the guidance of Professor George R. Bridgeforth of the agricultural department. After the wagon had been operated three months under Mr. Bridgeforth, and the success of this type of work seemed assured, the idea was presented by Dr. Washington to the Federal Government and accepted." Thomas M. Campbell, a Tuskegee graduate and one of Professor Carver's out-standing students, was placed in charge of the Movable School , with the title of "Agricultural collaborator for the U.S.Department of Agriculture". Thus the Jesup wagon, designed by George Carver, "became the vehicle of the first Negro agent in Federal employ,and went forth from Tuskegee on a regular schedule to the surrounding communities"..... and Tuskegee Institute again, through its Founder, its scientist, and its friendly philanthropist, had made a significant contribution to American education. The Movable School continues today--in its new motorized "vehicle" --to be a valuable means of extension education, and Mr. Campbell one of the most widely useful members of the entire Tuskegee staff.

A pleasant interlude for Carver came in the summer of 1908 when he went back to his childhood home at Diamond Grove for a brief visit with

Moses Carver, who was now a man well along in years. Mrs. Carver had already passed on. During this visit he had the distinct pleasure of presenting his former master with a new suit of clothes -- a suit in which Mr. Carver was buried when death came to him not long afterward. Writing to Dr. Milholland from Tuskegee later, Professor Carver mentioned this visit, saying "I was to my old home in Missouri last summer, and a white lady was laughing and telling me how I used to doctor her sick plants for her. I have much of that same reputation here ....."

He was "doctoring sick plants" on a much wider scale now, however, as a bulletin from the Experiment Station in 1906 indicates-- a bulletin entitled "The San Jose Scale in Alabama". He had been "doctoring sick Agriculture" for more than a decade, for that matter, diagnosing and prescribing for its basic ills of depleted soils, low yields, unscientific methods of planning and cultivation. In these basic conditions there was beginning to appear here and there some sign of improvement; some active putting into practise of the sound scientific theories of soil improvement and conservation, crop diversification, home gardens, and home-grown meat and dairy products consistently taught by Carver from his arrival in the south. Moreovwr, the appearance of the boll weevil in cotton fields here and there had begun to bring home the point of his insistent teaching,"Plant something else besides cotton". But now another basic ill appeared -- one which demanded scientific diagnosis and prescription far on beyond anything concerned merely with the production of crops and harvests, no matter how diversified or how abundant they might be. The question now was not so much how to grow plentiful crops of sweet potatoes, for instance, or of peanuts or of anything else, but what to do with them when they were grown.Science,

Professor Carver now saw, must not only help Agriculture to do better farming; it must also discover for Agriculture how to make farming pay.

Of what value abundant harvests of sweet potatoes or peanuts ~~for instance~~ if there was to be no market for them ? A farmer must of necessity raise a "money crop" of some kind. How, then, to make "money crops" out of farm produce never before considered in any such light ? It was a problem whose solution involved the ~~xxxxxx~~ hopes and despairs, the comfort or the poverty, the eventual fulness or emptiness of life for countless Americans, black and white, living in the potentially rich, but agriculturally and industrially undeveloped areas comprising the rural south. Of this George Carver was aware. Here was a problem requiring of Science something more than analytical and remedial research; there must be creative research as well. And who should be better equipped for creative scientific research than a scientist who was also-- if not, indeed, primarily -- an artist, with an artist's gifts and skills and habits of creative activity ? It was a problem plainly and peculiarly his own, and ~~George Carver~~ and such as George Carver saw it. He must find an answer to this question of such vital import for the South he deeply loved.

Into his laboratory, then, he went with working specimens of farm products -- peanuts, sweet potatoes, cotton, etc. -- and "the application of creative research to farming (which) marked the beginning of a new era for the south and for the evolution of agricultural policies" had begun. Professor Carver was not alone there in his laboratory in Milbank Hall-- of this he was continually aware. Working with him-- using his mind, his hands, his understanding, his resources of acquired information and skill-- was the Great Creator, God. The work he was to do was the Great Creator's work; the answer must be His answer. Intimately personal and vitally real

to Carver in these hours of work in his laboratory were the ancient words ".the Father that dwelleth in me, he doeth the work..." and an ordinary looking laboratory in an agricultural building had indeed become "God's own work-shop."

To a mind skilled in scientific research as Carver's mind was skilled, and equipped as his was equipped with a broad and intimate knowledge and understanding of plant life and Nature lore, the initial steps in the search for an authentic answer to this problem were immediately clear. Here, for instance, was a peanut, easily grown in southern soil but one of the lowliest of all farm products. What hope did a peanut hold for a southern farmer, beyond its already somewhat accepted values as a soil builder and a food for livestock ? The answer to this question of course involved, first of all, an accurate knowledge of the actual make-up of a peanut-- of what, actually, was it composed ? "Pulling a peanut apart" in his laboratory, Carver the chemist soon knew exactly what was in a peanut, what amounts of protein, starch, sugar, oil, fat, gum, pentose, pentosan, arachin, corarachin, amino-acids, etc., etc. And now he was ready for the next question : What could be made from these contents of a peanut, in new combinations or combined with other compatible elements, that would be marketable products, meeting some need of human existence-- commercially valuable products ?

Here the actual "creative research" began to function. Food-- that was one of the fundamental needs of human life; what food products could be made from the lowly peanut ? And presently the answer began to appear in the Carver laboratory--to appear in the visible, tangible, edible forms of such things as powdered milk, butter, cheese, candies, coffee, pickles, sauces, breakfast foods, flour--the list goes on and on. And what other commodities, of potential commercial value, might a peanut

be induced to produce ? Again the definite answers came : wood stains, ink, insulating boards, paper, plastics, creams, massage oils, dyes, blemish removers,-- the penut list has lengthened through the years to a total of more than 300, with the possibilities still far from exhausted.

Turning from the peanut to the sweet potato, Professor Carver drew forth such interesting replies as flour, breakfast food, syrup, tapioca, starch, fuel alcohol, stains, stock food , glue, etc., etc. And from cotton, such additional answers as paper, rugs, cordage, insulating boards, and asphalt road paving blocks. Not onntent to limit his search merely to plants, Carver turned the spot-light of his imagination-the revealing operations of his chemistry, upon the natural resources of southern farm lands -- the clay in the hills, for one thing, in all its lovely varieties of shades ranging from pale yellow on through orange, grey, saffron, rose, to a deep rich mellow red. What could come of such clay ? Color, of course ! And so it did come, under his manipulations --paints and pigments, dyes and stains, then materials for plastics and pottery, and even washing powders and shoe polish. Yet another area of resource material for authentic answers to his query Professor Carver found in the waste materials of farming and industry,and from theee began to come such suggestions as a synthetic marble from wood shavings -- There are benches made of it on the Institute campus today! And insulating boards from peanut shells; valuable fertilisers from swamp muck; house paints from waste crank case oil. So the incredible list goes on, assuming more and more significance through the years as a definite and dependable answer to the initial problem which Carver, the creative research chemist, took into his laboratory at Tuskegee Institute thirty-odd years ago.

As the days went along, and more and more of these actual evidences of commercially valuable possibilities made their appearance in his laboratory, Professor Carver began to feel an assurance that in such products would eventually lie a ~~dound~~ k and workable solution to the problem of how to make farming pay, ~~and further on, perhaps, the map of the farming districts of the South.~~ When the accumulation of evidence reached the point of offering to his own mind valid and sufficient proof of the truth of ~~his xxxxxxx~~ theory that products from farm crops, natural resources, by-products, and wastes could be made to undergird, support, and sustain a sound agricultural economy, he began to speak now and then of his "discoveries" to groups or to individuals with whom he talked, offering the actual samples in support of his spoken statements. Such discovery and such proof, he was sure, was no "light to be kept under a bushel"; it must in time be "placed upon a candlestick" that it might give light unto men.

Dr. Washington was by no means unaware of these and other distinctive contributions Professor Carver was making to the Institute and to an ever-widening area beyond the bounds of the campus, and gave to him constant support and encouragement. Commenting on the man himself and on his work, he declared "One of the most gifted men of the Negro race whom I have ever happened to meet is George W. Carver ..... As a result of his work in breeding cotton and of the bulletins he has prepared on experiments in building up worn-out soils, he has become widely known to both colored and white farmers throughout the south. When some years ago the State Secretary of Agriculture called a meeting at Montgomery of the leading teachers of the State, Professor Carver was the only colored man invited to that meeting. He was at that time invited to deliver an address to the convention and for an hour he was questioned

on the interesting work he was doing at the Experiment Station .... A few years ago when the colonial secretary of the German Empire, accompanied by one of the cotton experts of his departments, traveled through the south in a private car, he paid a visit to Tuskegee largely to study, in connection with the other work of the school, the cotton-growing experiments that Professor Carver has been carrying on for some years. In his book, 'The Negro in the New World', Sir Harry Johnston says 'Professor Carver, who teaches Scientific Agriculture, Botany, Agricultural Chemistry, etc. at Tuskegee, is, as regards complexion and features, an absolute Negro: but in the cut of his clothes, the accent of his speech, the soundness of his Science, he might be professor of Botany not at Tuskeegee, but at Oxford and Cambridge".

Having known such support and encouragement from his friend, Washington, through all his early years at Tuskegee, Professor Carver, with other members of the school faculty and student body and in common with hundreds of people throughout America, heard with a sense of overwhelming loss the shocking news of the death of Booker T. Washington. Stricken ill in New York City, and taken to a hospital there, Washington insisted that he must be brought home -- a plea to which his physicians, against their professional judgment, finally gave consent. Knowing his grave condition, they doubted that he could reach home alive. But reach home he did, and there in his home on the campus of the school to which he had literally given his life, Booker T. Washington's great spirit took leave of his tired body, on November 14, 1915.

"The South as well as the nation mourns the loss of a great man", the governor of Alabama wired Mrs. Washington. "He had won the confidence of our people, and no man since the Civil War did more to

create harmonious relations between the races". In the local paper this tribute appeared:"Locally almost to a man our own Tuskeegee and Macon county citizens are realizing as never before how wonderfully this man wrought for himself a place in the confidence and esteem of this community and country. In a thousand ways his influence for helpfulness has been felt and everybody mourns his going away...." In Tuskeegee, all stores were closed at the hour of the funeral; in Boston all flags on municipal buildings flew at half-mast.... A great man had passed on.

Acting as promptly as possible, a committee appointed by the Trustees with Ex-president Low, of Columbia University, as chairman, took up the work of finding a man to be Tuskeegee's second Principal. To Hampton again Tuskeegee turned, this time to bring to Alabama Booker T. Washington's able successor, Major Robert Russa Moton, a close friend of the the Institute's Founder, and, like him, a member of the staff at Hampton Institute. In his inaugural address Major Moton gave reassurance to any who may have needed it that the committee's choice had been wisely made-- a reassurance which the coming years were increasingly to fulfil.

"In order", he said, "that this institution shall continue to carry forward the ideas and ideals of its great Founder; in order that we shall not cease to render large service to humankind; in order that we shall keep the respect and confidence of the people of this land, we must, first, every one of us--Principal, teachers, graduates, and students, use every opportunity and strive in every reasonable way to develop and strengthen between white and black people, North and South, that unselfish cooperation which has characterized the Tuskeegee Institute from its very beginning. Second, we must patiently and persistently

and in the spirit of unselfish devotion follow the methods of education which, in this school, have been so distinctive, so unique, and so helpful. Third, we must consecrate and reconsecrate our lives to this work as instruments in God's hands for the training of black men and women for service, in whatever capacity, or in whatever locality they may find a human need. Fourth, there must be no cantankerousness here--we must all work absolutely together...." Words which must have stirred a warm response in the bereaved and saddened heart of George W. Carver, who had lost not only an understanding Principal, but a close and dearly loved friend.

"For some time after Dr. Washington's death", one of Carver's students has said, "it seemed that Professor Carver made a special effort to spend more time with students than he had during the past few years. He seemed to know how lost we all felt, and was obviously trying to do all that he could to help fill the big gap left for us all when Dr. Washington died."

The time was near at hand, however, when the world outside the Institute was to recognise something of the extraordinary contributions which George Carver had to make not alone to his own people, his own school, but to the world at large, and to demand of him more and more time and thought for matters far beyond the bounds of Tuskegee Institute. A little more than a year after Washington's death, Professor Carver found in his mail one day a letter from England which read:

Royal Society for the Encouragement
of
Arts, Manufactures, and Commerce

London

Founded 1754 Inc. 1847

29 November, 1916

Sir,

I have the honor to inform you that you were this day elected a Fellow of the Royal Society for the Encouragement of Arts, Manufactures, and Commerce.....

I am, Sir,

Yr. very obt. servant,

H.J.Wood, Sec.

Society's House
Adelphi
London

The announcement came as a complete surprise to Professor Carver. He has never known how the appointment came to be made, nor who it was who proposed his name for membership in this distinguished Society. It is probable that it was some British visitor to the Institute who saw and appreciated the value of the work that this shy, unassuming scientist was doing. However it happened, he remains today one of the few Americans to whom the honor of election into this distinctive fellowship has come. It was inevitable that so signal an honor should attract wide attention to the person upon whom it was conferred--and the time was at hand when the light which George W. Carver had sought, and found-- in the woods and fields at dawn; among the test tubes and microscopes in his laboratory; and in the great silent spaces of his own creative spirit -- was to be placed upon its candlestick, there to burn as a "light unto men".

IX

LECTURER EXTRAORDINARY

(1916 - 1924)

The year 1916 brought to Professor Carver not only signal recognition from abroad. There came also in this year an opportunity to leave Tuskegee to work with Thomas Alva Edison. Mr. Edison sent his personal representative to Tuskegee to talk with Carver and to invite him-- at a tremendous salary-- to come to New Jersey to carry on research in the Edison laboratories there-- an offer and invitation which Carver immediately declined.

"But you didn't even consider it at all," his astonished friends asked, when the news of it got around," a chance at a big salary like that, and work with Mr. Edison ?"

"No,"Carver replied."I knew what I was going to do, so there wasn't any need to consider it."

"But turn down all that salary ?"

"Well, I have all the money I need. What would I do with any more ? It doesn't take very much for me. No, I shall stay in the South;I belong here".

In his letters to Dr. Washington concerning his coming to Tuskegee from Ames, Carver had said "Money will not be the sole consideration;only secondary." Now, after 20 years at the school, this statement was still true, and has remained so. It was true that little money was required for his everyday needs. He was still wearing--and quite contentedly wearing-- suits of clothes he had brought with him upon his arrival in 1896, kept clean and neat-looking by his own personal care. He had no dependants. He often loaned or gave money to needy students, but that took

little, comparatively speaking, out of the accumulation of years of salary checks. Frequently he put these checks in his pockets and left them there, forgotten, until a routine auditing of the Institute's books sent someone to him with a "search warrant" for the missing undeposited checks. So the idea that he needed more money seemed ridiculous, to his way of thinking, and certainly no reason for leaving his established home and work at Tuskegee. Thus the only visible result of the visit of Edison's representative was the appearance of two autographed photographs of Mr. Edison on the walls of Professor Carver's office-- one given when the invitation was presented, and the other sent when the news was received by Mr. Edison that his offer had been declined. But there remained between these two American scientists a mutual respect and appreciative admiration to whichthe two photographs bear witness, meven as they bear witness to Carver's conviction concerning his own particular field of work, and his lifelong lack of concern for the accumulation of material wealth and possessions.

Despite his decision to remain in the South and his determination to maintain at Tuskegee Institute his home center of professional and personal activities, the strong currents of needs he was now equipped to help with meeting surged about this Tuskegee scientist more and more strongly, ~~draw~~/-drawing him out into a widening tide of national problems and concerns. Upon America's entrance into the World War in 1917, the Institute campus, like other school and college campuses all across America, was busy with the various activities through which such institutions sought to carry on their part of thr task of a country at war to "make the world safe for Democracy". From the student cadet corps young men went out to camps in America and to battlefields in France; from the nurses' training school went well-trained nurses. On the campus there was the Red Cross work,

the knitting, the conservation of vital food supplies common to most American communities in those days. Major Moton was sent to France to look into and insure the welfare of American Negro soldiers; and Professor Carver, called to Washington for consultation, contributed to the now emergent needs for food conservation, substitutes for foreign dyes, and utilization of wastes the information on these matters he had been gathering and testing over a long period of years.

In February, 1918, newspapers carried a story from Denmark, S.C., which said "The feature of the 9th Annual session of the Farmers' Conference here at Voorhees Institute was the address of Prof. Geo. W. Carver, eminent agricultural chemist of Tuskegee Institute... Prof. Carver came to Voorhees after having spent several days in Washington where he had been called by the government to demonstrate his famous sweet potato flour which the Tuskegee Institute has been using since last Fall as a substitute for wheat flour.... Carver stated that the government made a very exhaustive investigation into the possibilities of his sweet potato flour with a view of using same in the army, and to give (it) official recognition.... (and had) decided that the sweet potato flour offered probably the greatest possibilities in the way of saving flour that had yet been discovered in America.... Carver urged the Negro farmers to go back to their homes, organise, and not let one potato go to waste; to erect community and individual driers and dry their sweet potatoes..... in this way they would be rendering an invaluable service to the nation in its efforts for conservation."

So in consultations with government experts, in Farmers' Institutes on and off the campus, and in bulletins from the Experiment Station did Carver bring to bear upon problems brought into focus by the war the light of his long chemical and botannical research. Of par-

ticular value at this time, when the customary supply of dyes from Europe was cut off, were his discoveries concerning dye materials which could be secured from plants native to the South.

When the war was over, the need and demand for the information and practical contributions of Professor Carver were by no means lessened, but increased. "Many thoughtful, progressive men and women", reported the Hampton "Journal and Guide" in March, 1919, " have become familiar during the past few years with some of the wonderful discoveries of Dr. Geo. W. Carver..... From long distances visitors come to consult this quiet, hard-working ,resourceful, extraordinary black man-- Dr. Carver is a man of genius. Recently he gave convincing, positive answers to those who are seeking in these after-war days to find new industrial outlets for the growing population of the South and the region's rapidly developing prosperity, due, in large measure, to the South's concerted effort to feed itself as well as furnish large food supplies for the starving people of the world. At the recent Tuskegee Negro conference, Dr. Carver exhibited several hundred products he had developed from the native materials of Macon county, Alabama. This exhibit showed beyond the shadow of a doubt that this black scientist had caught the vision of a greater industrial South. True research student that he is, Dr. Carver has not been attempting to develop his discoveries for the sake of individual reputation or money profit. He is chiefly interested in doing the basic work of finding numerous uses for everyday, ever-ready materials...."

In January, 1921, when the Congressional Ways and Means Committee had under consideration the inclusion of peanuts in a protective tariff provision, peanut growers invited Carver to appear as one of their spokesmen before the Committee-- and the stories of that committee meeting, and of Professor Carver's arrival in Washington to attend it, are classics in the

mass of Carver anecdote and legend. To Tuskegee friends who suggested a new necktie for the occasion, he replied "A new necktie won't help me much in answering their questions." Arrived at the Washington station, the Professor, then a man inn his middle fifties, gave little appearance of a person on important mission bent. A description of him written by a Boston minister who had spoken at Tuskegee about this time gives some idea as to how he must have looked as he left the train at Washington--allowing for a little "slicking up" for the occasion. "Beside me on my right", says this minister, " was a tall, lean, lanky colored man..a pure African, who seemed to have no connection with the rather well-dressed group--but who wore a shabby suit, dusty boots, and by way of contrast, a delicate flower in his worn button-hole. His whole attitude was that of a very plain, humble, unassuming townsman. When the service was over, and I was shaking hadns with the men, this lanky fellow moved up and gave me his hand.

"Good morning, sir", he said, in a high-pitched voice. "I'm Professor Carver".

"Carver, the peanut wizard !"

But he had no look of a peanut wizard to the red-cap whose services he sought to engage for help with his directions that day in the Washington station.

"Sorry, can't help you now, Pop", called the hurrying porter, over his shoulder."Got to find a big scientist up here from Alabama".... and the "big scientist", in person, was left to find his own way to the Committee hearing, managing his baggage as best he could.

Arrived there, he waited his turn to speak, which was the last turn on the allotted list of 10-minute speeches granted by the Committee.

"Down at Washington the Committee on Ways and Means surprised itself the other day," reported the newspapers, "when members, as well as spectators, for the first time in recent history applauded a speech at one of their sessions. Geo. W. Carver....had delivered a discourse on peanuts and their by-products, and the Committee, burdened with consideration of many dry-as-dust tariff figures, agreed it had a delightful time listening to the professor's remarks and in examining the exhibits he had brought along...[2]

Excerpts from the hearing go a little further into the reasons for this "delightful time":

> Chairman: All right, Mr. Carver, we will give you ten minutes.
>
> Carver: Mr. Chairman, I have been asked by the United Peanut Growers' Association to tell you something about the possibility of the peanut and its possible extension. I come from Tuskegee, Alabama. I am engaged in Agricultural research work and I have given some attention to the peanut, but not as much as I expect to give. I am especially interested in southern crops and their possibilities, and the peanut comes in, I think, as one of the most remarkable crops that we are acquainted with. It will tell us a number of things that we do not already know, and you will observe that it has possibilities that we are just beginning to find out. This is a crushed cake (Taking a specimen cake from his exhibit case) which has a great many possibilities. The crushed cake may be used in all sorts of combinations-- for flours and meals and breakfast foods and a great many other things that I have not time to touch upon just now. Then we have the hulls which are ground and made into a meal for burnishing tin plate. It has a very important value in that direction. More of it is going to be used as the tin plate manufacterers understand its value. This is another confection. It is peanuts covered with chocolate. As I passed through Greensboro,N.C. I noticed in one of the stores this was displayed... and as it is understood better, more of it is going to be made up into this form. Here is a breakfast food. I am very sorry you cannot taste this... Now this is a combination, and, by the way, one of the finest breakfast foods that you or anyone else has ever seen. It is a combination of the peanut and sweet potato, and if you will pardon a little digression here, I will state that the peanut and sweet potato are twin brothers and can not and should not be separated. Here is the original salted peanut, for which there is an increasing demand , and here is a very fine peanut bar.... Then we have the peanut stock food. This is No. 1, which consists of the ground hay, ground into meal, much the same as alfafa hay. Here is peanut meal No. 2. That can be used for making flours and confections and candies, doughnuts, Zu Zus, gingerbread, and all sorts of things of that kind. Here is a sample of peanut hearts. It is not necessary for me to say that

peanut hearts must be removed from the peanut before many of the very fine articles can be made, such as peanut butter and various confections that go into candies, etc. Now these peanut hearts are used for feeding pigeons. Pigeon growers claim that it is one of the very best foods they have found... Now here is an entirely new thing in the way of combinations. It is for making ice cream... a powder made largely from peanuts, with a little sweet potato injected into it to give it the necessary consistency. Here is another thing that is quite interesting. This consists of the little skins that come off the peanuts. These skins are used in a great many ways. They are used for dyes. About 30 different dyes can be made from the skins, ranging from black to orange yellow, and in addition to that they contain a substance very similar to quinine... They are using a good bit of this now as a substitute for quinine, and physicians find it quite attractive... Here is another breakfast food... Here is a stock food, consists of a combination of peanut meal and peanut hay, together with molasses and chinaberries. The chinaberry has a great many medicinal properties such as sapavin and mangrove, and many other of those peculiar complex bodies that make it an especially valuable product that we are going to use as soon as we find its value."

Here the ten-minute period was up, and Carver closed his exhibit case, thanked the Chairman, and prepared to take his place again in the rear of the room. Astonished Committee members, however, left a little breathless and almost literally speechless by what they had heard and seen in the brief ten minutes, roused to indicate their desire that he should go on. They wanted to know what else was in that bulky-looking case; what else this amazing scientist could tell them concerning the peanut and its possibilities. "More! More!" they called. So the hearing was continued:

Chairman: We will give you more time, Mr. Carver.

Carver: Thank you.

Mr. Garner : (D-Texas) Yes, I think this is very interesting. I think his time should be extended.

Then Professor Carver, re-opening his exhibit case, discussed for the Committee another phase of the peanut industry which included such products as powdered milk and cream from peanuts, instant coffee, pomade, massage oils for the anemic, ink, etc. This was followed by more discussion of the chinaberry, and in closing, he said:

> War has taught us many things. Science has touched these things in a way that is bringing to light what was intended should be brought to light, and there is scarcely a vegetable product that we have not learned something about.... If you go to the first chapter of Genesis, we can interpret clearly, I think, what God intended when He said 'Behold, I have given you every herb that bears seed upon the face of the earth, and every tree bearing seed. To you it shall be meat.' That is what He means about it, ' It shall be meat'. There is everything there to strengthen and nourish and keep the body alive and healthy."
>
> Chairman: What school did you attend ?
>
> Carver: The last school I attended was the Agricultural College of Iowa. Secretary James Wilson was my instructor for 6 years.
>
> Garner: I think he is entitled to the thanks of the Committee.

And suddenly there was a spontaneous and prolonged burst of applause. Professor Carver had spoken for more than an hour and a half-- an un-precedented occurrence in a Ways and Means Committee hearing-- as was the burst of applause. But evidently the Committee enjoyed the novel experience of having this gentle-voiced professor talk to them of the peanut for well over an hour, and enjoyed as well the rare experience of having a scientist quote and interpret for them passages of Old Testament Scripture ! At any rate, the peanut was written into the protective tariff, and peanut growers have persistently allotted to the Tuskegee "wizard" the major share of credit for bringing the peanut up from its former status as a lowly "goober" to the $ ~~60,000,000~~ tremendous industry it has ~~eventually~~ come to be.

A few months after this appearance before the Ways and Means Committee, Carver was back in Washington again, this time to discuss with experts the conservation of by-products he had observed going to waste at government power projects. In a letter to an editor, dated May 6, 1921, he mentions this trip, saying :"I want to express my appreciation of the very fine cartoon you were kind enough to send me. (The artist's original drawing of a cartoon of Carver used by the editor.) It is very good indeed. ...I

have just returned from a trip to Washington, D.C., being called there as a result of an inspection made of the air nitrogen plant and the Wilson dam at Muscles Shoals, Alabama. I noticed from by-products going to waste what I thought could be turned into profits, so I thought I ought to go up and discuss the matter with the authorities on the manufacture of air nitrogen. This I did ...."

The following year, 1922, saw Professor Carver setting out from Tuskegee for further lectures and exhibits of his products. Typical of the interest and curiosity engendered by these appearances is a description of his exhibit at a Fair held in Suffolk, Va., that year: "George W. Carver's exhibit of products extracted from the lowly peanut attracted more attention than any other feature of the Greater 4-County Fair(white) held at Suffolk last week. Every day farmers, peanut growers, chemists, manufacturers, merchants, and people in all walks of life gathered around Prof. Carver's unique exhibit and marveled at the wonderful discoveries of the colored man who has shown the world the wide range of possibilities possessed by the peanut. Carver himself attracted almost as much attention as the 100 or more products he has discovered in the peanut. A full-blooded Negro, tall, elderly, dressed just about like the average farmer dolls up when he goes to town, Prof. Carver was rather disappointing in appearance to many.... Two middle-aged white farmers came along Thursday.... One had not seen Carver, and when he was pointed out to him, exclaimed 'My God, is that him ! ' "

Such evidence of interest in the man and in his work grew out of something sounder than surface curiosity, however. Following a lecture tour through North Carolina in that same year, he was presented a lovely silver loving cup by the N.C.Negro Farmers' Congress, "in token of the esteem"-- the citation declared-- "in which the farmers of the South

hold him and his service." Nor were the farmers of the South alone in their appreciation of the values inherent in the service this scientist from Tuskegee was rendering, for in 1923 came a national honor when he was selected as the recipient of the Spingarn medal, given by Joel Elias Spingarn, of New York City, to be awarded each year ~~to~~ that American of African descent who has made, during the year, "the highest achievment in the field of human endeavor." On the committee making the award were Theodore Roosevelt, assistant Secretary of the Navy; Bishop John Hurst; Dr. James H. Dillard; Oswald Garrison Villard; Dr. W.E.B.Dubois; Dorothy Canfield Fisher; and Dr. John Hope. The announcement stated that it was made in "consideration of his service in agricultural chemistry, his recent recognition by a British Royal Society, and for lectures during the last year before white and colored audiences, particularly in the South, where his clear thought and straightforward thinking have greatly increased interracial knowledge and respect."

Almost coincident with this announcement (June, 1923) Professor Carver was entering into an experience which was a validation-- if one had been needed-- of the committee's conclusions concerning his ability to "increase interracial knowledge and respect." At the invitation of the Southern Student Y M C A Council, he was a special speaker on the program of the summer conference of Southern white college Y M C A groups held annually at Blue Ridge, a stately white-pillared hotel with surrounding cottages, conference halls, and recreation grounds set high amid a panorama of far-flung blue hills not far from Asheville, N.C. Here each summer select groups of several hundred young men from colleges and universities of the entire South have gathered for years for their Y M C A conferences. To this conferecne in 1923 Carver came with a sense of misgiving and apprehension. To be sure, he had spoken to many

white audiencies, and had been well received. But this group was somewhat different; this conference was different. How would these young college men -- steeped in all the deeply-rooted racial traditions of the South, almost totally lacking in acquaintance with any Negroes save those living in the most lowly and un-lettered circumstances, and accustomed to hear on their conference programs out-standing leaders of religious thought in America-- respond to the presence in their midst of a Negro man who would speak to them of peanuts, and sweet potatoes, and God ?

Arrived at Blue Ridge, and heart-heavy with any oppressive sense of uncertainty and loneliness, Carver set out for a walk up one of the mountain trails, seeking the peace and assurance he invariably found in Nature's companionship. On this trail he met one of the students, a young man from a college in Virginia, and they began to talk. This student fortunately had the insight to sense immediately something of the extraordinary qualities of mind and spirit inhabiting the body of this strange-voiced elderly man, and responded warmly to his friendly words. In so simple and incident as this was the cloud of uncertainty lifted; the initial basis of understanding and introduction into the student group laid; the powerful currents of Carver's eventual influence upon white southern students set in motion and the channel opened for the inflow of his teachings. Speaking later to the student group as a whole, Professor Carver, heartened by his previous talk with one of them, found himself drawn to these men, ~~as~~ they were to him, in a mutual understanding and admiration far surpassing the hopes and expectations of the leaders who planned his coming. Before he left the conference grounds, there had been numerous requests not only that he return the following summer, but that he come to speak on the campuses from which these representative students came-- requests which the planning Council, needless to say, was more than delighted to see fulfilled.

In November, following this summer conference, he was scheduled for lectures in South Carolina colleges. "I am to begin a series of talks soon," he wrote a friend, "spending from the 19th to the 24th of this month in South Carolina, beginning on the 19th at Clemson College. I expect my itinerary soon; they are all to be white colleges. Please pray for me that I may say the right thing in the right way at all times, that Christ may be glorified." And the prayers must have been answered, for following the trip, to an official of the Y M C A Council, he wrote :" Thank you so much for your fine letter ... It seems to me that you have the correct and only solution to the great humanitarian problem. We are all here together, but few, if any, were consulted before coming here. No large number can get away, and I am positive that the grace of God in the hearts of the various social groups will fit us so that we can live together in perfect harmony. I fully believe that 'divine love' is going to dominate the world. I saw it more clearly than ever before in visiting through S.C. I literally fell in love with those fine young men, so full of possibilities, and so full of the love of Jesus Christ. I suffered terribly with my throat all the way, and at every point I could see really that they sympathised and wished they could do something to help me.... I certainly thank you for your kindness and shall endeavor to do as much of your work as possible, and do hope the good Lord will enable me to do it.... "

The trouble with his throat referred to here preceded a severe illness which turned out to be not an unmixed evil, for it brought on an avalanche of evidence as to the place he was beginning to hold in the affection and esteem of many Americans. To a student friend in January he wrote "Since my illness, I am more convinced than ever that divine love will one day conquer the world. O, the letters, telegrams, whole churches over 2,000 miles away praying for my recovery! My, how little it makes

me feel. These came from all classes and nationalities. I am not so good, no better than others except they pull me up to it. What a responsibility !.. .... I am not yet well by any means, but very much better. My doctor says I shall have to give up all public speaking for at least two months more. My next trip/ then I presume will be to Los Angeles, Cal., then to Indianapolis, Ind. Then I am booked for New York City next Fall. The So. Division of the Y M C A wants me to give them four or five weeks in the white schools, they say the students are asking for it, but of course I cannot do it now."

Later in the year, however, Professor Carver did make a lecture tour in southern colleges, speaking to approximately 3,500 students, under the sponsorship of the Southern Interracial Commission. This Commission had grown out of conferences in France soon after the Armistice, when Major Moton, Thomas Jesse Jones, and other concerned Americans discussed the idea and tentative plans which led to definite organization in early 1919. With headquarters in Atlanta, and supported and directed by men of both races of such strength and influence as Major Moton and Dr. Will Alexander, this Commission [redacted] played a major part in the progress made toward interracial understanding and good-will in the South during the difficult after-war decades of the twenties and thirties, which saw the pseudo revival of the Ku Klux Klan, the increased tension between the races resulting from widespread unemployment. Importnt among the early projects of this Commission was the decision in 1924 to sponsor Carver lectures on college campuses. To Professor Carver these lectures were gratifying experiences, despite the fact that he labored part of the time under the handicap of a bronchial trouble that made public speaking painful; and in spite of the difficulties and discomforts to which he was constantly

submitted in the matters of travel, meals, and lodging--due to the prevalent Jim Crow laws and the lack of decent hotel accomodations available for a member of his race.

For the 3,500 students who heard him, as for their teachers and townsmen, these Carver lectures were like nothing heard or seen before on land or on the sea! Gathered in their chapel or class-room groups, they saw an elderly, broad-shouldered Negro man seated in a relaxed sort of slump in his chair -- a box or packing case, or several of them, on the table or down on the floor beside it. (Invariably these exhibit cases were there, for seldom could he be persuaded to lecture without some such tangible and visible illustrations around which to center his remarks. "I haven't much to say along the lines of theories or the pure abstract", he would insist)

The introduction done, this quiet-looking man arose-- a tall, strong-looking fellow who was apt to stride vigorously back and forth across the stage during the early portion of his talk, a habit which was emphasized on those occasions when his shoes happened to squeak, as they sometimes did! Now were his first words likely to add anything to the gravity of the moment. "I like to hear myself introduced", the startling high-pitched voice was ~~xxxxxx~~ apt to begin. "I learn so much about myself I never knew before. I have gathered considerable inspiration, aspiration, and a few more 'ations' from this introduction.... Now, we shall try to hit a few high places here and there, mostly there...." An almost invariable wave of laughter greeted these observations, which was, of course, exactly as the Professor intended!

"Now", he would continue, " I want to take you with me on a little journey. We will walk and talk for a while with the Great Creator, and get some information from Him. To do this, we must get ourselves in

condition to hear what He has to say to us. Once when I was speaking in a distant city, my hostess left the living room after saying to me that I might find something of interest on the radio. When she came back, she asked if I disliked radio programs.

"No", I said," but I didn't know how to tune in".

"There are a good many of us like that..we don't know how to get in touch with the source of information; don't know how to tune in with the Creator. Now I am going to show you how I tune in. If you have some better way, that's all right. But this happens to be the method I myself use. I am going to quote some verses of Scripture-- now, don't be alarmed. I'm not going to preach. I'm simply going to do what many of the ministers do--take a text and then depart from it, never to return...(Laughter) Our first verse is 'Behold'--which means,Look --' I have given you every herb that bears seed upon the face of the earth, and every tree bearing seed. To you it shall be meat..... Second:'I can do all things through Christ who strengtheneth me'.... Next: ' In all thy ways acknowledge Him, and He shall direct thy paths'.... Now for the fourth verse: 'There is much food in the tillage of the poor'...Now we are ready for two verses that are to bring us into closer tune with the Creator:'The earth shall be filled with the knowledge of God as the waters cover the sea'....'Behold, I show you a mystery'... Now for the final turn of the dial which is to put us into tune:'Open thou mine eyes that I might see wondrous things out of thy law'.... We are ready now to see and behold the mysteries of His law....."

Taking a simple rubber band out of his pocket, he would stretch it between his hands. "Here is a mystery. Nobody knows why rubber stretches. With all our profound profundities, we don't know that. A freshman, of course, would say that it's just Nature ! I once had a letter from a

Canadian in China --76 pages long-- explaining his theory of why rubber stretches, and asking me what I thought. I replied 'I don't know'. There are many mysteries in the world. We are beginning to understand some of them..... And now we are ready to say 'Mr. Creator, I want to know all about the creation story.'

'I'M surprised at you. This belongs to the infinite. The finite cannot grasp the infinite. Narrow the extent and increase the intent.'

'Well, then, Mr. Creator, I'd like to know this: Why did You make the peanut ?'

'I've given you a few brains, I won't say how many, but some. Here is a peanut. Take it to the laboratory and analyse it. That's the easiest way to find the answer to your question.'

"... So we take the peanut and analysen it and find that it is made up of oil-fat-resin-gum-pentose-pentosin-arachin-aorarachin-amino-acids-protein-starch-sugar... words spoken in a swift prestissimo, and ending "Now you know exactly what is in a peanut !"-- (Spontaneous laughter!)

"Now the Creator says 'You look puzzled'.

'I am'.

'Well, you know what you've taken out of a peanut. You know what Dr. Slosson and other chemists are saying about adding another kingdom--the synthetic--to the familiar three: the animal, the vegetable, and the mineral. Before many years chemists will be able to reproduce in the laboratory almost everything Nature has made...."

' I see now, Mr. Creator, what you mean. I am to take these things and make what I can out of them.'

'Yes, but be careful about compatibility. Don't put things together that swear at each other.'

'You know, Mr. Creator, so many people never touch reality. They

say when they pray: O Lord, bless me and my wife, my son John and his wife, us four and no more..... I want to make something that has a humanitarian use. I'd like to make something to help fill the empty dinner pail. Can I make milk out of a peanut ?'

'What kind of milk do you mean--rich Jersey milk or the boarding house kind?' And with this, he would reach down into his exhibit case, bring out a bottle of powdered milk, displaying it and setting it on the table.

"Here we have a very delicious milk which is being used with good results for the babies of missionaries in Africa. And here is another that Mr. Ghandi in India has found very helpful in building up his strength." ...As each product was taken from the case, and mentioned, it was placed beside the others on the table.

"Let us now for a few moments", he would continue, "explore the creative mind. This mind dares to break away from set rules and regulations and blaze out a trail of its own. In our present system of education a mind like that is usually in trouble-- but by and by, if you let it alone, it'll accomplish something. I am glad some of our institutions are beginning to recognise the singularity of such minds and make provision for them. A creative mind is the most illogical you ever heard of, yet it has a type of logic of its own... The human mind goes by groups, if permitted. Some of our curricula scatter it too much. See how my mind stays now in this group, the emulsion group. We have been thinking of milk--doesn't take any mental gymnastics to think next of cream. Here is a bottle of rich cream; it can be made to produce butter. And here is a nice bottle of buttermilk. These are fruit juices combined with milk--wild plum and blackberry. Mr. Ghandi is now using both the peanut and the soy bean milks in his diet.... Here is another very interesting product, "Penol", a medicine for bronchial colds, creosote and peanut oil

in a combination that will not disturb the most delicate stomach.

"Now we come to a tangent-- no relation except in a subsidiary way. This is vinegar... and here we have a group of wheys: orange, lemon, and cherry. This is worchester sauce... Here is a postum coffee, and this is an instant coffee with sugar and cream already added;needs only water and heating-- a very delicious drink. This is chop suey...and this is peanut pickle ... You see, I am now answering my own questin. This, to me, is why God made the peanut ... Here is a dandruff cure.. and here are more pickles... These are beauty preparations. I am told that they will do the work-- I myself have not used them. (Laughter)"

Thus the lecture proceeded for an hour or more, with product after product lifted from the case and set inn its place until the table held an almost unbelievable array of them. And all the while the even more astounding comments went on-- Science and Religion, Dietetics, Industry, and Education mingling in a most un-heard-of fashion, with scintillant flashes of humour, and curiosity-provoking side remarks, playing across and around the whole strangely-wrought tapestry of thought and words and peanut product illustrations. Finally, at the close, he would say "We haven't even begun yet to explore the possibilities, but I hope that I have said enough to show you that we can truly walk and talk with the Great Creator." Sometimes he would quote, as conclusion, some lines of verse which began:

"Study it out for yourself, my lad,
"You have all the equipment the best have had...."

And so the lecture was over. But often large groups from the audience stayed on for another half hour or so to ask questions and to examine the display of products at closer range.

There were other lectures that went along with exhibits of pro-

ducts from clay, or miscellaneous groups. And there were, of course, many variations from the general outline and procedure as here given. But by and large this peanut lecture was the most popular and most in demand wherever he spoke, and contained the essential gist of the message Professor Carver brought time and again in the years of the twenties and thirties to audiences all across the continent. To him it was a natural and logical thing to speak of Science and the Scriptures, peanuts, potatoes, and the creative mind wherever you happened to be lecturing, be it a great metropolitan church in New York City, or a State legislative Assembly, a University campus, or an annual Macon County Fair.

But to most of those who heard him it was an extraordinary thing, and to newspapers it was head-line news. Strange indeed were some of the titles bestowed upon him by the headline writers-- the trail-blazer, the goober wizard, a prophet of science, the miracle man, benevolent chemist, apostle of interracial appreciation-- titles which, with one exception, he would scarcely have thought of bestowing upon himself. The exception was "the trail blazer". "That is what I hope to be", he would say. "I want to blaze a trail and point out a way that those who come after me may follow."

Typical of the more thoughtful responses to his lectures was that of the eminent sociologist who wrote, after hearing him speak, "He combines in the most surprising way the simplicity of a child, the humility of devout faith, and the confidence of scientific certainty. His first words are apt to impress you as almost childish. Then you become conscious of an unfathomable vein of mysticism and faith. Finally you yield to speechless wonder as he opens for you a few windows into the scientific maze where his feet are so much at home... Asked

how he has made so many discoveries, he promptly tells you 'I didn't do it. God has only used me to reveal some of His wonderful providences.' All his work has been done in that spirit. Chemistry is its physical basis, but faith is its inspiration, prayer its atmosphere, and service its motive. To Geo. Carver, there is no conflict between Science and Religion".

And there was the little boy who, having heard the Professor speak, came to his mother the following day, carrying a walnut and a hammer from his toy tool chest. "Mother," he said, "if that man can find all that many things in a peanut, there must be a lot more in a walnut, and I'm going to find out right now...." a type of response that, needless to say, was a delight to Carver when he chanced to run across it, as he sometimes did, especially among student audiences. And naturally so, for this, to the Tuskegee scientist's mind, was the chief reason why the lectures should be made, the products exhibited-- mainly that there might be some here and there whose minds and imaginations would be fired to exploration and creation of their own, in Science, and Art, and Religion, and Industry, and in the great broad field of constructive human relationships.

In college groups he frequently found them. After his week-end stay at Blue Ridge in 1924 (By student request he had been secured for a second summer for the Southern Y M C A Conference) he wrote, in his report to the sponsoring Council : "I had a most wonderful time; was the guest of the Virginia delegation, as you know.... I have never met a finer group of young men-- truly Christian gentlemen. The first afternoon I arrived, the personal interviews began with some of those I met last year. There were so many that.. I would begin at four in the morning and have my last interview at twelve at night. Sometimes several would come and I would answer their questions as best I could, but

more frequently ,only one would come who desired information along the lines in which he was most interested, i.e., one desired to be a food chemist, another research chemist, others desired to find Jesus more definitely than they had done before. All wanted to know how it was possible to read God out of Nature's great Book as I seemed able to do. These interviews were most wonderful and refreshing... I was asked to visit and talk to two or three other State delegations, but owing to the fact that immediately after supper was the only time at their disposal as a delegation, I could not accept as the Georgia delegation had already engaged my services for the two evenings. The second evening Dr. Britton, President of the Georgia Tech, joined us and made it very pleasant indeed. These were truly fine young men.

" One volunteered to take me to the train at Biltmore in order to get in his fifteen minute interview. He had some chemical problems that were troubling him..... I have before me forty-one letters from those dear boys. May I quote a paragraph, from one in Kentucky, which is characteristic of them all:' I sure have profited greatly by the Blue Ridge conference. I count it one of the greatest privileges of my life. I shall never forget that morning when we stood on the bridge before breakfast and talked of the wonderful God and how He has planned the universe. We looked at the trees, shrubs, flowers, and weeds, as you told us of their uses. It has made a better man of me.' I have ~~forty~~ forty-one pictures from them and quite a number have asked for mine. ... I met a young man there from North Carolina, who is making a specialty of food chemistry. He asked for the privilege of coming to Tuskegee and getting me to help him with his chemistry. He stayed 10 days. He went away very, very happy; I was equally happy to render him this little service. Since his return, this expression comes from his mother:

' I can't express in words the appreciation I feel in my heart for all you have done for my son. You made his trip so pleasant and profitable,too. You have given him wonderful inspiration... '

"They consult me about health, physical development, and it seems like evry conceivable thing. Two have sent me pictures of their lady friends to see what I think of them ! ... At Blue Ridge, one stepped on something while bathing in the pool, and ran a thorn in his foot; he came to me and I removed it. Another got poisom oak and I had to apply an old-fashioned remedy to it; another had a badly sprained ankle and I showed him what to do for that...The whole atmosphere seemed saturated with the Christ spirit of helpfulness. The dear boys seemed to take special delight in making me very happy. This was equally true of the professors.... Divine love is destined to rule the world. I believe despite the many things that often irritate and depress us this ondition is being brought about faster than many of us realise.....

P.S. Just in from the Post Office with a peck of fine apples from one of the North Carolina boys...The same mail brought a cap from an Alabama boy. "

Two years later one of these "dear boys", then at Princeton, put into written form a statement concerning the group known to Professor Carver as his "little family", which grew out of the 1924 Blue Ridge conference and has added unto itself new members as the years have gone along: "At the first meeting Dr. Carver spoke for well over an hour to a spell bound group of interested students. He spoke of the oneness of God and Nature and showed through the products he had with him how God had permitted him to pierce behind the veil and bring to light some of the hidden mysteries of Nature. To many men life took on a

new and deeper meaning that day, and they went forth with the words of the Psalmist on their lips: 'Open thou mine eyes that I may behold wondrous things out of thy law'. The fellowship begun at Blue Ridge was destined to go on through the years and a small group who were captivated not only by the powerful conception of the universe presented by Dr. Carver, but by the charm and beauty of his character, corresponded with him regularly.... The fellowship will seek to stimulate and encourage original research and creative genius among its members in whatever lines they may manifest themselves, seeking thereby to make every member a producer for the common good of mankind... "

With the members of this "little family" group Professor Carver had continually kept in touch; ~~xxxxxxxxx~~ the "boys" are now mature men, at work in their various professional fields, but they still make trips to Tuskegee as often as they can, to see and talk with the man who brought to them one day an arresting and stimulating new vision of the meaning of life and its ~~purposes~~ of available invisible resources. To Carver, this group has been a source of great joy and faith and comfort; in his letters to his "boys" he has ~~[illegible]~~ poured out the affection and concern, as well as the admonitions, he would normally have bestowed upon his own sons. These young men, in a sense very real both to him and to them, have become his "family".

This needs much more work — !

But by no means all of the responses and reactions to the Carver lectures were as gratifying and encouraging as those experienced in student groups. Naturally such lectures, coming from a scientist, caused considerable lifting of eyebrows among many of his fellow scientists. And not alone ~~[illegible]~~ more scientists, but ~~[illegible]~~ more many others in various fields of "liberal" thought and education. In this generation, cast loose from historic moorings of conventional morals and orthodox religions, and enamored of the Idea that anything to be valid must have Scientific Proof

arrived at by Scientific Method -- for a scientist to stand up and speak quite naturally of walking and talking with a Great Creator, and of being in daily conscious partnership with Him in scientific creative achievment -- This was too much ! No real scientist would be guilty of such absurdity ! Chemists here and there disavowed him, saying "He is not one of us." A good many men of science dismissed him as a mere "quack"; others declared him "only an agriculturist".

Following a lecture in Fifth Avenue's Marble Collegiate Church in New York City , in November, 1924, a wave of such criticism spread through the news journals, followed by considerable journalistic debate on the question of this man's science. Observed the "Baltimore Sun": "Carver has astonished New York, where he recently delivered a lecture, by two things. One is the large number of simple products of the soil, such as peanuts and sweet potatoes, for which in his laboratory he has demonstrated new possibilities. And the other is his ascription of his success to divine inspiration. As to the latter, it is refreshing to find a chemist who does not feel it necessary to bar God out of his work-shop. And as for the field he has chosen for research, it is pleasant to find a scientist who is not engaged in the devil's own work of producing destructive combinations, but devotes himself to developing new means of ministering to human needs...."

The focal point at which criticisms following this particular lecture were aimed was Carver's assertion (As reported by the press) "No books ever go into my laboratory. The thing I am to do, and the way of doing it, comes to me. I never have to grope for methods; the method is revealed at the moment I am inspired to create something new. Without God to draw aside the curtain I would be helpless...." That words like these, coming from a scientist, should immediately draw fire is ob-

viously what might have been expected in America in 1924. And the "New York Times" administered editorial rebuke ih no uncertain terms:"It is for chemists to determine whether Carver is worthy of recognition..It is ... to be regretted..that Dr. Carver in discussing his own achievments should use language that reveals a complete lack of the scientific spirit.."

"Science", another journal came back in reply, " is so jackassical that it ~~xxxxxxx~~ cannot even stand for religious reverence to interfere with it..."

Professor Carver's own reply to the "Times" editorial was in a letter to the editor -- a reply so typical of both the thought and words of this scientist then under editorial fire as to merit complete quotation:

Tuskegee Institute, Alabama
November 24, 1924

To the Editor of the New York Times
Times Building
New York City

My dear Sir:

I have read with much interest your editorial pertaining to myself in the issue of November 2oth.

I regret exceedingly that such gross misunderstanding should arise as to what was meant by "Divine inspiration". Inspiration is never at variance with information; in fact, the more ~~inspiration~~ information one has, the greater will be the inspiration.

Paul, the great Scholar, says, Second Timothy 2-15,"Study to show thyself approved unto God, a workman that needth not to be ashamed, rightly dividing the word of truth".

Again he says in Galatians 1-12: "For I neither received it of man, neither was I taught it, but by the revelation of Jesus Christ".

Many, many other equally strong passages could be cited, but these two are sufficient to form a base around which to cluster my remarks. In the first verse, I have followed and m yet following the first word: Study.

I am a graduate of the Iowa State College of Agriculture and Mechanical Arts, located at Ames, Iowa, taking two degrees in Scientific Agriculture. Did considerable work at Simpson College, Indianola, along the lines of Art, Literature, and Music.

In Chemistry, the following persons have been my inspiration and guide for study: Justin von Liebig, Dr. Leroy J. Blinn, Dr. Ira Remsen, Drs.

L.L.De Koninck, E. Dietz, Robert Mallet, William G. Valentin, J. Merritt Matthews, Edwin E. Slosson, M. Luckiesh, Harrison E. HQwe, Charles Whiting Baker, Helen Abbott, Michael, Mad. Curie, Geo. J.Brush, Charles F. Chandler, G. Dragendorff, Frederick Hoffman, Josef Bersch, Arthur C. Wright, M.W.O'Brine, Lucien Geschwind, Stillman, Wiley, Dana, Richards & Woodman, Harry Snyder, Coleman and Addyman, Meade, Ostwald, Warrington, Winslow, and a number of others, all of which are in my own library, with but few exceptions. In Botany, London, Wood, Coulter, Stevens, Knight, Bailey, De Candole, Pammel, Bessey, Chapman, Gray, Goodale, Youmans, Myers, Britton and Brown, Small, and others. These books are also in my own library. Dietaries: Henry, Richards, Mrs. Potter Palmer, Miles, Wing, Fletcher Berry, Kellogg, Nilson, and others.

In addition to the above, I receive the leading scientific publications. I thoroughly understand that there are scientists to whom the whole world is merely the result of chemical forces or material electrons. I do not belong to this class. I fully agree with the Rt. Rev. Irving Peake Johnson, D.D., Bishop of Colorado, in a little pamphlet entitled "Religion and the Supernatural." It is published and distributed by the Trinity Parish of your own city. I defy anyone who has an open mind to read this leaflet through and then deny there is such a thing as Divine inspiration.

In evolving new creations, I am wondering of what value a book would be to the creator if he is not a master of analytical work, both qualitative and quantitative. I can readily see his need for the book from which to get his analytical methods. The master analyst needs no book; he is at liberty to take apart and put together substances, compatible or non compatible, to suit his own particular taste or fancy.

While in your beautiful city, I was struck with the large number of Taros and Yautias displayed in many of your markets; they are edible roots imported to this country largely from Trinidad, Porta Rico, China, Dutch Guiana, and Peru. Just as soon as I saw these luscious roots, I marveled at the wonderful possibilities for their expansion. Dozens of things came to me while standing there looking at them. I would follow the same or similar lines I have pursued in developing products from the white potato. I know of no one who has ever worked with these roots in this way. I know of no book from which I can get this information, yet I will have no trouble in doing it.

If this is not inspiration and information from a source greater than myself, or greater than any one has wrought up to the present time, kindly tell me what it is.

"And ye shall know the truth and the truth shall make you free"-John 8-32.

Science is simply the truth about anything.

Yours very truly,

Geo. W. Carver

Director of Research and Experiment Station

With the writing of this letter the controversy, so far as Professor Carver himself was concerned, was over. His days xxx were far too full-- he was much too busy to take time out for discussion as to whether he was "worthy of recognition" , or possessed of the true "scientific spirit"-- even had such questions been a matter of great concern to him, which they obviously were not. Excerpts from his letters to his "boys" indicate something of the fulness of his days on the campus in between the lecture trips that now so frequently called him away from home :

" .... I am working now on micas. I have gotten 17 different things out of one of the samples I had at Blue Ridge. The micas were the ones I had in the little bottles. Two new peanut products came to my mind Sunday. I want to work them out right away....."

Oct. 29, 1923

" ... I had such a wonderful day all day yesterday. One of the most inspiring sermons I ever listened to was delivered by our chaplain on 'Thought'. My volunteer Bible class in the evening numbered nearly 100. I had as my subject 'How the persimmon trees talk'. This was suggested Sat. by a young man coming to me with four types of persimmons, some ripe, some green, some flat, some long. I tried to show what God meant in making them that way. It seemed to have stirred them up wonderfully, they say they never heard anything like it .... "

Nov. 7, 1923

" ... I really love to paint... My ambition is to paint a flower or a fruit so that you can see God in it. Some say I have attained to some degree of success.... "

Jan. 25, 1924

" ... You ask me now what I am doing ? Well, it is hard to say, In have

so many things going on, and people from the N.E.S. & W. are coming for information. One man representing the ----- River River Power Co. was here and spent the day Mon. with the hope of enlisting my interest and help in working out some of their complex problems. R---- Chocolate Co. has also a multiplicity of problems they have submitted. A big manufacturing plant in Chicago who manufacture slate products have many problems they want me to work out. Another man from Atlanta was here and spent the day to see if he could not purchase my services in connection with their immense plant in which they make, bleach, dye, full, and size cloth of various kinds on a gigantic scale. They say just name your price, money is no object with us, we want your services. I could not do it because I do not think God wants me to sell out in that way. I am going to straighten them out on some knotty problems.... O, how I wish the young people could get a vision of what the world is demanding... ..... Then every day someone is begging me to please come and talk...I cannot go now as much as I used to as you know I am getting along in years and cannot sit up and ride all night, like I used to do..."

1923

" ... Such a wonderful thing happened to me last Sunday while listening to a soul stirring sermon from an African clergyman. He related such a pathetic story of a native girl who became a Christian, became ill, and soon her gentle spirit went to God who gave it. As I sat and listened I said to myself, 'Poor child, she probably died from tuberculosis... [redacted] Make a peanut product that will be a boon to suffering humanity.' Church was out by 12, we had dinner at once. I went to the laboratory immediately after dinner and in a short time I had a product that our two leading physicians say is very remarkable. It is a food and medi-

icine combined, made from the peanut. It is creosote, perfectly emulsified with the peanut products. I have had a slight cough since my break-down in Nov., a bronchial trouble. I took it freely and regularlarly and it has actually stopped the cough. I do not have it any more, thank God..... "

April, 1924

" ... I tried to speak at a joint meeting of our Y.M. and Y W C A yesterday on the meaning of Spring. I got all of my illustrations from the woods. I thought of and longed for you while I was collecting them. I am persuaded that the best way to grow in grace and in the knowledge of the Lord Jesus Christ is to grow in the knowledge of the things He has created.... I am working now with orange, lemon, and grape fruit peelings (rinds) and getting some wonderful things out of them. 25 or 30 precious stones have been sent to me from Michigan. Stone cutters and geologists, they say, are puzzled to know what they are, and thought I might tell them... It will take some time to work them out, but I am sure I can do it. They are,however, not diamonds as they think. They are wonderfully brilliant when cut.....

April 24, 1924

" ... Shortly after you were here I received several packages of precious stones for identification .. I did the best I could, God directing me. I made two very full and careful reports, describing the strata in which each gem was found, tracing them to an ancient river bed. I also named each gem..... Geologists have taken my statements, searched the State geological records, and found them absolutely correct. Of course I never was in the State and know absolutely nothing about the geology of the State, except as the rocks told me. Job advises that we get in league with the rocks, meaning that God will speak through them to you ..."

This man to whom the rocks speak an understandable language was then in his sixtieth year -- an age atb which some men begin to retire in some measure from the more strenuous pursuits in which they have engaged. But there was to be no such retiring from the mid-stream of affairs for Professor Carver--not for many years yet to come. Although he had spoken of himself as "getting along in years", and unable to travel as widely as he had done, the coming years were to prove him equal to an extent of travle, and to demands for public appearances, beyond any he he yet envisioned. Late in 1924 we find him , as eager of heart and as interested in the future as a young man in his thirties, making plans for his work for the coming year, and for many years ahead; writing to the "Manufacturers' Record"; "I believe that the South is the richest section of the entire United States, on account of its undeveloped resources. I believe, with the Manufacterers' Record, that the time is now ripe for the development of a number of them ... I want to make my Exhibit at the Southern Exposition in New York next January, which is strictly a Southern Commercial one, of the highest type. I should like to show you a few things that are really astonishing, causing one to wonder why they have not been developed before."--- And there, observed the Asheville (NC) Citizen, quoting the letter in its columns, " is the map of much of the South's future greatness."

X

LECTURER EXTRAORDINARY, CONTINUED

(1924 - 1934)

The decade lying between 1924 and 1934 saw Professor Carver traveling up and down and across America carrying with him his "map of much of the future greatness of the South", and reiterating his conclusions and convictions concerning its undeveloped resources. And not of the South alone. It was of the vast undeveloped resources of all America that he spoke -- resources not only of soils and plants and waste materials, but of the human spirit as well. In lectures sponsored by Tuskegee Institute, the Southern Interracial Commission, and the student Y.M.C.A.; or in response to special invitations from civic groups, schools, Exposition and Fair managements, farm conventions and congresses, he spoke again and again of the everyday mysteries of the universe in which we spend our days, and of the meanings of these mysteries in terms of human happiness and despair, human welfare and ill-will.

His name increasingly became head-line news. Newspapers, magazines, various journals of the press reported his sayings, his lectures, his experiments and their outcomes, and the unusual story of his career. Yet when all the words about him were written, all the reports of his lectures and public appearances made, there was something admittedly lacking. There was something about this man that eluded description; some quality felt almost immediately by those who heard him speak or who visited him at Tuskegee, that seemingly could not be gathered up and portioned out in phrases, words, and paragraphs -- a quality that

frequently called forth the comment:"But the man himself-- he is so much more astonishing that the products that come out of his laboratory !"

His appearance undoubtedly had something to do with it. The porter in the Washington station could scarcely be blamed for failing to recognise in the gentle-voiced,kindly-seeming elderly man the "big scientist up from Alabama" whom he was all agog to serve. Hundreds of other people made the same mistake,particularly in the earlier years of Carver's public speaking, before his picture had appeared in newspapers so often that the American people by and large knew what to look for when the "big scientist" arrived.

Far from being angered at such mistakes, Professor Carver actually enjoyed them,even at times going so far as to aid and abet them -- or at least to raise no hand to avoid them. On rare occasions, in genial mood, he has related stories of these incidents, admitting his own part in them. There was the time, for example, when, arriving by train inna town where he was to speak, he saw what he took to be the welcoming delegation , peering and craning for the first glimpse of him as they crowded up to the train. Luggage in hand, he turned and walked down the aisle,leaving the train by the back door of the car,to stand in apparently neglected and bewildered state among the hurrying crowd for some moments before anyone even noticed him. And, needless to say, thoroughly enjoying the whole experience, especially that part of it when recognition finally dawned, and apologies were being showered upon him by the embarrassed welcomers -- apologies to which he made gently gracious, and no doubt innocent-seeming, answer:"Why, that's all right. No need for any apology at all !."

He will tell, moreover, with great gusto and much delight in the recollection, of the time when he stood in the door of Milbank Hall, in his shirt sleeves and the sagging old flour sack apron that is a part of his laboratory uniform, when a group of several visitors to the Institute came hurrying up the steps, in typical tourist fashion craning this way and that, and saying "Where is he ? Where is Dr. Carver ? We want to see what he looks like !" -- And in their rush, almost capsizing the old man who somewhat impeded their progress. Then a student in the hall, in response to their insistent demands, saying "There he is", and pointing to the "old man" they had so impatiently brushed aside.

I remember once, when he had been telling me some of these stories, and we had spoken briefly also of certain more bitter experiences he had known, I remarked that I did not see how he could have come through such experiences without a great residue of bitterness. The complete silence of the moment that followed my remark was memorable, as was the great light of yearning and compassion that poured over his face as he turned and looked at me for a long moment, then shook his head slowly and said "You can't harbor bitterness... It clogs the channel. I can't do my work if my heart is bitter ....."

This was the Carver no reporter was ever able to portray in his news stories, or to bring to life in articles; the Carver whom thousands came out of mere curiosity to hear, to go away somewhat dazed by the sudden impact of an almost incredible personality, saying, "What is it about this man that makes him affect me as he does ? There is something about him that gets hold of you... "

In 1925, following lectures in North Carolina, Virginia, Indianapolis, Ind., and Cornell University, Professor Carver packed up his peanut ex-

hibit in May for the trip to the Southern Exposition in New York City he had referred to in 1924 letters. Here in the old Grand Central Palace on Lexington Ave., in a corner on the third floor, for 12 days visitors to the Exposition stopped to talk with Carver about his exhibit, and some stayed on to talk with him about many other things. When the Exposition was over, the governor of Alabama wrote him "Permit me to congratulate you on your exhibit and the splendid way in which you handled same. It contributed no little to our success and you and the Institution you represent are to be congratulated." But there was a young drug stor clerk who expressed appreciation even more gratifying to Carver, than these. In a noon-time lull one day during the Ecposition, a young fellow strolled over to the Alabama Exhibit, and before he knew it was engaged in conversation with the gentle-voiced elderly Negro man he found among the display of peanut products. After that, the boy came each day to talk with Professor Carver, and when the Expostion was over, he came up to say good-by.

Grasping Carver's hand, he spoke in words broken by deep emotion: "I don't know how to thank you. You don't know it, but you saved me. That first day I came up here I was desperate; thought I had come to the end of everything, and was trying to get up nerve to go on out and do away with myself. But I couldn't do it after I'd talked with you. And now I am ready to start all over again and see things through. I can't ever thank you for this... "

The year 1926 saw the Professor leaving Tuskegee for lectures in in Indiania , Georgia, and Tennesee, and in 1927 he was back in North Carolina again, bringing his peanut exhibit to an Exposition in the little town of Windsor. Then followed a year marked not only by numerous lecture tours, but by two notable evidences of the growing recognition

of the value and importance of the man himself and of his scientific achievments. In the midst of a busy lecture season, in 1928, there came a letter from his Alma Mater, Simpson College, saying "We wish to do ourselves the honor of conferring upon you the degree of Doctor of Science at our commencement exercises in June. We hope that you can arrange to be present". It was a heart-warming experience to receive such news as this, and heset about making plans to attend the commencement, intending at the same time to visit also his second college home at Ames. But a strange twist of fate or circumstance intervened. Writing to one of his "boys" whom he had hoped to see at Ames, he said:

" A very fortionate and unfortionate accident will prevent my coming to Iowa. Fortionate, and only by God's mercy that I was not killed. Two weeks ago Iw as gored by an infuriated bull. He attacked me, knocked me down and gored me each time, he knocked me down three times. Fortionately no bones were broken, and as he had no horns, he could only gore me with his head. I am of course painfully bruised,but can now walk to my office and back...."

And a little later, he wrote:

"Pressure of course is being brought to bear upon me to go here and there. I have a first class alibi now, being crippled. I am walking to my office and back now.. I am better, very much better.... It is quite a blow to me not to be able to be out there as I want to see you so badly...."

In late December he was sheduled to appear on the program of a meeting of the American Association for the Advancement of Science, according to newspaper announcement " the largest gathering of scientific men and women and friends ever held in this country. 5,000 or more will attend." Here again, however, illness prevented Professor Carver from be-

ing present. "I have been shut in for more than two weeks with an acute attack of the 'Flu'", he wrote a friend on Christmas day, a letter to which he added this postscript:""Hate, my dear friend, is the very embodiment of everything that is wrong,nothing to revolting or destructive for it to do;turns us into fiends incarnate. mLove is divine,is of God, must someday rule the world. It is the only force that has held the world together,up to date. When we ceas to love our fellow men we become a dangerous character, because we have shut God(love) out of our lives."

The attack of Flu was long-drawn-out. In April, 1929, he wrote"I have not been able to do any traveling since. The malady has left me exceedingly weak. I am practically exhausted by the time I can walk to the office and back... I do hope you spent a wonderful Easter Day. It was ideal here. I heard such a fine sermon in the morning and the beautiful 'Stabat Mater' rendered in masterly fashion at night."

A few weeks later, able to travel again, he spoke at Birmingham Southern College in Birmingham, and on June the eleventh, was guest speaker for a notable and long-discussed meeting of the Lions' Club in Columbus, Georgia. "Dr. Carver", they said of him there,"comes as an emisary of industrial progress...the exponent of a new epoch, the forerunner of a new era in creative science." But the Columbus "Ledger", in editorial comment added:"Above and beyond all that Dr. Carver has done is what he is ".

1930 was an unusually full and crowded year even for a lecturer who seemed able to take the most astonishing itineraries and schedules in his daily stride. Early in the year, accompanied by Mr. H.O.Abbot, of the Institute faculty, who was frequently his companion and tour manager, he gave a series of lectures in Wichita, Kansas,speaking at two universities, two high schools, and before the American Chemical Association,

to audiences numbering more than 5,000 people. "The great scientist of Tuskegee Institute", declared a Wichita newspaper when he had gone," has most profoundly moved our community", while a letter from a Wichita Negro minister followed him ,with this significant and gratifying statement:" "Every worthwhil Negro of Wichita is proud that he is a Negro today as a result of your visit here".

From Wichita he went on to Dallas, Texas, where on a Sunday night he spoke to a great crowd in the city hall auditorium, and on the following day in Austin, to another huge audience , his talk here being sponsored cooperatively by Tillotson Institute, the Chamber of Commerce, the State Department of Agriculture, and a county Farm Association. So high did the enthusiasm for him run here that by a resolution introduced and passed in the State Assembly, he was invited to speak to a special session of the Legislature, then in session in Austin -- an invitation he was,of course, most delighted to accept. Upon his return home, he found a letter from the manager of the Austin Chamber of Commerce:"I feel that your visit here has been and will be worth a vast deal to the State of Texas". A November lecture tour during [illegible] this year took him to Morgan College and Johns Hopkins in Baltimore, Buffalo, Cleveland, Philadelphia, Harrisburg, Bucknell University, Penn. State College, and finally to Jamaica, New York, where again he spoke at the joint invitation of a group of civic organizations.

At Tuskegee, in between his lecture jaunts about the country, he spent a large portion of his time receiving the visitors who came to the Institute to see him from [illegible] "far corners of the world", as well as from near at home, and on [illegible] astonishing missions bent, at times. Among them, in 1928, was C.F.Andrews, the saintly and beloved

English missionary to India, known in India as "Christ's Faithful Apostle". Mr. Andrews' special mission to Tuskegee was to enlist the help of Dr. Carver in working out menus and food recipes that would restore the ~~xxxxx~~ waning strength of Andrews' close friend, Mahatma Ghandi-- a request that Carver counted a cherished opportunity, and one he rejoiced to be able to fulfil. It has often been observed that a striking similarity, not alone of appearance, but of ways of life and unique power of spirit, exists between Carver of Tuskegee and Ghandi of India. However true or untrue this may be, it is true that ,with the visit of C.F.Andrews to Tuskegee Institute, a warm and vital bond of close companionship was formed between the great spiritual leader of India and George Washington Carver, of Tuskegee-- a mutually strengthening bond, and being of the spirit a lasting one.

1931 was a great year in the annals of the Institute, for it marked the fiftieth anniversary of the founding of the school. In April of that year, ceremonies worthy of the occasion brought many notables to Tuskegee, among them Dr. Anson Phelps Stokes, who made the Historical address of the day, prefacing it with the statement,"Tuskegee Institute still awaits its historian. I hope that as a result of the interest created by this semi-centennial, someone may undertake to write a well- documented definitive account. It would fill a great gap in the history of American education ..."

Three things of particular and personal interest happened to Professor Carver during this fiftieth anniversary year. In the first place, he lost his teeth -- the ones Nature had given him, that is! "Yes, I had all my teeth taken out last Tues.", he wrote one of his boys in early February . "I am getting along quite well, I think. He

has not told me how long it will be before he can put in the others. I am sure it will not be before the Anniversary. (April 14)" And again , in March he wrote to a member of the student Y M C A Council regarding a college lecture tour being planned for him , scheduled to begin immediately after the celebration in April :" I hope I will be well enough to make the trip. I am now having my dental work done, and he does not talk very encouraging about the job being so that I can use it by that time. However, I am hoping for the best, I have been living off of nothing but soups for nearly a week, and I see no relief in this situation for some time".

This intimate matter of losing his teeth did not, of course "make the head-lines", but another thing that happened during the anniversary year did. From the Soviet government came an invitation to Carver to come to Russia to help carry forward efforts and experiments to develop the Russian cotton industry. His reply was that his strength would not permit it, but it is unlikely that he would have considered leaving Tuskegee and America had there been no question of strength involved. The fact that the invitation had come to him however was carried by the press as "another signal honor and recognition for the Tuskegee scientist".

Another one-- and this one from his own country -- lay just ahead for him at commencement of the anniversary year, but ,having recovered enough strength, he left the campus just after the Founder's Day celebration in April for a series of engagements in North Carolina, Tennesee, and Virginia. At Christianburg, Virginia, he was in story-telling mood, regaling his audience with side- splitting stories of spiders and other insects whom he claimed as constant friends. Commenting on a man who

had said that he had the "blues", Carver wanted to know "Why not the pinks,reds, yellows -- they are all beautiful and lovely. If any of you have the blues, I'll tell you how to get rid of them. Get acquainted with bugs, worms, snakes, spiders".... and the audience laughed, But the speaker was s erious. He was making a suggestion that would actually work, as he knew from long personal experience.

Back to Tuskegee ,then, for commencement -- and for the unveiling of a great bronze bas relief of himself, presented by the Tom Huston Peanut Company of Columbus, Georgia, to the Institute, in recognition of his contribution not alone to the Huston Company but to the whole peanut industry. Cast in bronze from clay models whichw ere sent to Italy for casting, this bas relief portrait of Carver was the work of Isabelle Schultz, of Baltimore.

"We feel", said the presentation speaker, Robert Barry, " that millions of human hearts have been melted together in spirit and poured into this bronze likeness of their friend and counselor. We bring it to Tuskegee Institute, t he center from which Dr. Carver's many influential lines have radiated to all parts of the earth.... You will take care of it; you will love and cherish it. I am glad that it is yours...."

Writing to one of his boys, Dr. Carver poured out the great flood of emotion this event called up in his heart:"I feel the need of the sustaining power of your prayers more than ever right now. The great bronze"bas relief" of myself has just been sent over by Mr. Tom Huston, C olumbus, Ga. It is a masterpiece of Art. I do not feel equal to it. I am simply trying to do whatb God wants me to do as fast as He gives

me light and strength. I am so unworthy of such signal honors... How I wish you could be here May 28th(when) it will be unveiled. I wish so much that my dear little family of boys could all be present..."

One of these boys did come, and to him, the following week, Dr. Carver wrote"You will never know what it meant to me to have you here last Thursday..."

Such expressions of acclaim and high esteem as this bas relief represented were not unaccompanied by criticisms of the Tuskegee scientist, however. Although there was during this decade a growing acceptance of the man and of his work among scientific groups by and large, there remained many who still seriously doubted the authenticity of his science in general and of his methods of work in particular. It sometimes happened that these honest doubters and skeptics among his fellow scientists changed their minds concerning him when they came face to face with the man himself. An account of his appearance before a scientific group at New York University serves as illustration of this -- an account written by a man who was present at the lecture.

" The New York University meeting really climaxed all the others. (This lecture was one of a series presented in the East) He spoke to 150 members of scientific honor societies. They were cold at first, hardly smiling at his humour. Then you could see them warming up. When he had finished they cheered until he stood up twice and then they continued cheering. Just after the meeting the officers of these societies gave him a reception. That night he spoke to medical students and faculty of Bellvue Hospital, Flower Hospital, Cornell University, Physicians and Surgeons College. The 250 present gave wonderful response. They plied

him with questions for a half hour after the lecture. You will be interested in this statement from a member of the New York University faculty : 'Dr. Carver had his audience absolutely. He had an extraordinary effect on me personally. He is the finest example I have seen of a consecrated chemist....' " This kind of thing was not an isolated experience, but a typical illustration of what often happened when scientific men who sincerely doubted his right to be named as one of them had opportunity to see him and hear him speak. But there remained a considerable number who remained unconvinced concerning him.

Another criticism often directed at him had to do with his consistent lack of concern over actually developing the commercial possibilities he was constantly declaring to be present in numerous materials at hand and available for any who would make use of them. "He has a great opportunity", these critics [redacted] said," to bring not only considerable credit and fame, but actual material wealth to his own race through the commercial development of these products he has evolved. But he lets these chances go by, with the almost certain result that enterprising white men will get hold of his ideas, develop them, and deprive his own race of the increased respect and credit for worthy achievment, to say nothing of the economic gain. Such a course of action seems unfair to his people..." It was a point of view easy to understand, and from some angles, certainly justified. For it was true that Dr. Carver never was really interested in going ahead himself to develop the commercial possibilities he came upon in hislaboratory investigations.

"I am not a business man", he stubbornly declared," but a scientist looking for truth. What I want to do is simply to blaze a trail

of investigation that others may follow; to point out possibilities that others may develop into economically valuable products". He did secure a few patents-- A blanket patent covering several processes for the manufacture of paints and stains from clays,minerals, etc; cosmetics from peanuts; and a copyright on Penol, a medicine for colds and bronchial congestions. And there wereseveral attempts toestablish commercial concerns for the purpose of manufacturing certain of hisproducts-- attempts which, for various reasons, were not carried on to commercial success, a primary factor in their failure probably being Carver's own lack of keen interest in such financial ventures insofar as he was personally concerned.

A matter of much more serious concern to many, some of them among his close friends, was the fact that he persisted in being such a "free lance" in his investigations and discoveries; that he worked at these things almost entirely alone, sharing with no assistant nor colleague the actual methods and formulae used and derived in the creation of the products which, he declared, were the keys to doors of increased human welfare and prosperity. And he had no one in training as an assistant who could carry on these important investigations should he suddenly become unable for some reason to carry them forward himself. Institute authorities had made several attempts to place such an assistant with him, and "understudy" person; and had made available for him secretarial aid. But so far such efforts had failed. It was a situation which, to some of his most concerned associates, presented not only a serious problem but a distressing paradox -- the inexplainable lack of correlation between his philosophy and basic teaching and his own practise in this particular area. "How", these concerned critics wanted to know," are these discoveries to be of any real

value to the world if he refuses not only to develop them himself, but to release them for use by anyone else ?"

Even theproffered secretarial assistance he seemed unable to use to the fullest advantage. All of his personal mail, and much of his professional correspondence, he handled alone, writing all his personal letters in his own old-fashioned script until as late as 1935-- when a tremor condition that had long troubled his right hand became so pronounced that he was no longer able to use the hand for much writing.

Having heard expressions of concern at his apparent inability or lack of desire to "train someone to follow him", I mentioned it to him once, during one of my early trips to Tuskegee, and asked him if it was really true that he was making no attempt to train such an assistant.

" You can't train a poet to write poetry", he said. And in that somewhat cryptic remark I caught a hint of the difficulty underlying the paradox that troubled his friends and critics.

By nature and temperament the man was as fundamentally as much an artist as a scientist, with an artist's inevitable preoccupation with his own individual creations; an artist's intense sensitivity to environment, particularly to its human relationships -- his inability to share the working out of his ideas and dreams with any save those with whom he feels a basic sense of harmony and understanding. The problem at that time , with Carver ,-- as subsequent solutions have seemed to prove -- lay not so much in his unwillingness to share his discoveries and work with a younger assistant, as in the fact that at that time he had found no one with whom he could work out the type of "sharing" relationship demanded by his peculiarly individualistic nature. And until he

did find such a person -- no matter how strong his religious compulsions, howø compassionate his humanitatian dreams, it was actually impossible for him to "train a poet" to write his kind of"poetry" , a fact which, however true, did nothing to solve the problem involved, nor to lessen the justification for the criticism arising out of it.

Now and then there were sudden striking lapses from his customary courtesy, another matter which sometimes caused considerable concern among his friends. Following a lecture there was often a rush toward the table on which the products he had discussed were displayed, and in the rush, frequently quick hands went out to snatch up some of the products, presumably for closer inspection. On such occasions his anger was quick and unconcealed. Or let a "Smart Aleck" question come over the crowd to him during the forum period following a lecture-- as they sometimes did. Like the crack of a whip came his sharp reply, a stinging rebuke followed by a startled silence -- there was something else besides gentleness in this quiet-voiced man !

Not so obviously justifiable were his occasional sudden lapses from courtesy to visitors who came to see him at the Institute, strange and often inexplainable lapses that seemed to know no difference between the high and the low in the matter of "class and caste". There was the persistent campus story, for example, of a notable man of the clergy who came to see the Professor in his office one day, a man of somewhat high and pompous air. The story has it that the interview was brief -- that the notable bishop went in importantly, to emerge a few moments later in red-faced, swift departure, his clerical coat-tails flying . And when questioned about it later, all that Carver would ever say was the brief

terse comment he made on various other occasions when he departed suddenly and unreasonably from his usual customs of courtesy: "I didn't like the look in his eyes".....

A few brief excerpts, selected at random from among the letters that came to Professor Carver from here and there and yonder around the world, serve to give some hint of the braadth and content of the intimate, friendly relationships he maintained, in the midst of his busy public life during the crowded years of theb twentiesand early thirties:

Columbia University
New York City

... I enjoyed your letters very much. I'd like to leave this huge city and take a nice stroll through the woods with you. In the woods there is peace .....

Alabama

.... This lovely little painting you sent usis going to be one of my greatest treasures. I think it is beautiful -- but most of all, I appreciate it because you painted it .....

California

.... Attended a lecture at the University of California last week, and was made most happy. The great Mr. Einstein was the speaker and in calling off the great scientists now living, Dr. George W. Carver of Tuskegee was the second name he mentioned in a list of ten. They applauded your name and of course I helped. They certainly know and like you everywhere. There were not more than a dozen colored people present in a drowd of two thousand, I think that was mighty fine of the white folks to raise so much "fuss" when your name was called .....

Mississippi

.... You remember the boy who rode with you to State Teachers' College and showed you Mr. W -- ? Well, I'm the boy. I was so impressed with your talk, thought Inwould write younabout it. I didn't get a chance to see you any more, but have thought about your talk and the good it means to our nation of people. I have been working in a Food store for $ 1.50 per week. My salary is small but I think about when you started out in life and that gives me encouragement.....

Philadelphia, Penn.

... Today one of my classes wrote a two paragraph composition on on the subject, "My Favorite Character". Of the twenty or more papers with you as a favorite, I have taken the liberty of sending you this one, to let you see how our boys and girls are thinking .....

Fort Crampel
French Equatorial Africa
Mission Evangelique

... Your letter of January 13th reached us sometime ago and last week the bulletins were received. We surely do want to thank you for them, for they contain lots of valuable information for us missionaries. Two of our main articles of food arepeanuts and sweet potatoes so we are much interested in these booklets.... I am wondering if it would be too much to ask that you send us five more of each bulletin so that each of our five mission stations may have one for reference.....

Kansas

.... Little did we think that your coming was to mean one of the greatest blessings that has come into the life of our son John. For a man of your ability and character to take an interest in him was a wonderful experience. We are sure that it will mean much to him in all the

years to come.... John may go to Atlanta and on to see you for a day or two .....

Michigan

.... I am almost overjoyed at the thought of having one of your lovely pastels hanging where not only I may gaze at it and be inspired daily, but where the general public may behold its beauty and wonder at the depth of its poetry....

Georgia

... I wish to go over to Tuskegee Saturday morning to talk with you about your work and discuss the course of study for our new Industrial High School over here. I will be accompanied by six or seven other men, who are interested in your work ....

Alabama

... Gee, Dr. Carver, your last letter has assured me more than any heretofore. It has made me braver in mind, body, and soul.... I will write you about the starch now. The starch I have gotten from the irish potato is a shade whiter than the starch purchased from the store... has a very crystaline sparkle, almost like sugar.....

Bangor, New York

... Having read a little about your marvelous discoveries in the field of natural science, I am concerned to learn if you have ever considered the gladiolus bulb. It is a great multiplier, and I am wondering if the elements of which it is composed could avail us something aside from the pleasure we obtain seeing the beauty of the blossoms. However, I am not writing seeking a favor . I am asking if you especially care for flowers. If so, should you care to accept from me a lit-

tle present of a few bulbs ? I have grown a great many gladiolas from seed .....

Georgia

..... I highly appreciate the interest you have shown in the little poems of mine Billy sent you a short while ago. I think you are a little too lavish in your praise of them and though it flatters me, I hardly feel that I deserve it..... I thank you very much for the sheet of poems and bits of wisdom you so kindly sent me in the last letter you wrote Billy .....

Alabama

..... Eabh one of the little band attending the Church of the Advent, Tuskegee, wishes to personally express appreciation ofthe kindness shown us when you so generously donated the cold-waterpaint for the walls, and the stain for re-touching some of the wood-work. .... The natural beauty of the little church has been so enhanced by your science and artistic skill that we.. wish to convey to you our sincere appreciation of what you have done towards the beautifying of one of God's temples .....

California

.... The package of bulletins and brochures arrived safely and I have perused all with interest. Am glad to have the recipes for sweet potatoes and uses of peanuts and particularly thank you for them. Yesterday morning we had waffles, and to the regular batter I added two tablespponful of peanut butter, and the results were most pleasing ....

Alabama

..... Last Thursday you talked for a few minutes to the senior

class of our high school. I was present as the conductor of an educational tour for the class. I heard you talk. I saw your face. I felt your spirit and there went out something from me to you that is still vibrating.... I am forty years old. All my life I have longed to contact the creative elements in life.... And you, your presence, affected me most profoundly. I had never before been in the presence of one of the masters. But when you spoke, I knew..... This letter is to ask you if I may come back .....

Yale University

.... Since writing you last I have passed through the period of examinations, I think with a fair degree of success, and have gotten started on a new school term. It was so good to get your last letter. I have read it over several times, and each time I receive new inspiration from it. I am so thankful for your friendship .....

Even more revealing than any letters from hisfriends to him, however, are the letters written by Dr. Carver to members of his "little family" during these busy, fruitful years. Here are recorded the little incidents of his everyday life; something of his hopes and plans; his intimate observations -- his affections, joys, disappointments. To his own letters, then, we turn -- that we may [redacted] more intimately see him as he goes about the Institute campus, or out traveling on his lecture trips, or sits down in the quiet of the evening in his little "den" to write to his "dear boys" .....

.... Four ladies have just left my room. They came down to see my gorgeous display of amaryllis(A sort of lily-like bulbous plant). I am a breeder of amaryllis and have several hunderd fine bulbs, among

them some of the most gorgeous colors I have ever seen. I have one measuring 9½ inches in diameter and as beautifully marked and penciled as an orchid. O, you can see the glory, majesty, and power of God in them ....

.... My work has taken on a new turn, a surprising one. Last Saturday I was "nonplused" by having a visit from the head of the Science dept. of a high school . He visited the lab. and after I had finished showing him through, he asked if he might bring his class and have me show them through and talk to them as I had talked to him. He is to come next Tues. God moves in a mysterious way His wonders to perform. Just a few years ago this would have been impossible.....

.... The books you have chosen please me greatly. Y ou are certainly moving along the right lines now. Couple this with constant observation. And little by little as God gives you light you will become a new man.....

.... An all-day talk at Emory and Henry, Emory, Va. That is, I first met the Sunday School, then the little tots, went to church, dinnered, out riding for an hour, then a volunteer round table talk in which I attempted to answer questions of many, many kinds for two hours, and to a large audience. Suppered, then the main lecture and of course talk afterwards to many who were interested. Some followed me to my room and talked until 11:00 P.M. So you see I had a very,very buisy day .....

.... The check -- God will bless you in many, many ways for such a great heart. I was overcome myself, and I,tho, thank you more than any words can express. I knelt down by the bedside where God came

to us in the little den and prayed for light and direction. All day today I have made a survey of the destitute conditions, and found that ewery family, both white and colored, had been helped, and was still receiving enough to keep the wolf from entering the door, and if they will work they will get along. I said, O God, this is your money. What shall I do with it that will bring the greatest returns for Him. The urge comes to return it to you and let you place it where God will direct you.... This exhibition of your great spirit has helped me greatly...

..... Just at this moment I am writing, but I have been examining some elm leaves, distinct saprophytes, and am finding some new and strange ones. You must do some of this work when you come again....Stumble and fall, my dear friend, of course I do, but I try not to stay down,or stumble over the same obstruction ....

....

I picked up dozens of dead twigs, such as old okra stalks, bean vines, dead leaves that had fallen from trees, etc., etc. All were teeming with the most simple(in some cases) and then marvelously complex compound microscopic life. How I longed for my great boy.. I wanted him to see that the thing we xxdi call death in the plant is only a preparation for myriads of actual microscopic plants that could not have existed had these plants not given up their life as we term it....

.....I fear people imagined I had gone insane, as I simply screamed with laughter when I got the new angle on the death of the Cat . I do hope you will save all the data that have come out and any more you can piece together, it is without doubt the richest thing that has ever been brought to my attention... I am gathering some seed of the English

primrose for your mother. Tell her about them .....

..... Just received a fine letter from Dr. W -- of V.P.I., asking for some information on "Peanut Skins" for members of his class in Chemistry, who want to work with them..... Let us join in prayer for my dear boy, Mr. N-- He writes me from his camp that he has suffered a very severe injury to one of his eyes, which may result in the loss of sight. He says the camp physician cannot tell as yet. You know the Great Physician can do all things .....

..... The rejuvenating peanut oil you have seenseveral times is still doing wonders. I have used it on fully 175 persons and they all testify to its greatness. I find it is a wonderful thing for tired nerves. The supt. of the large cotton mills at X--- is taking them (Massages) and declares the massages with the oil is making a new man of him.....

.... The finite cannot understand the infinite or sympathise with it, but are likely to hold it up to ridicule ....The more I study Nature, the plainer God speaks to me, and the more direct I can speak to Him ....

..... To want to know what people think of you is not bad... It is important as to what people think of you, they must love and have confidence in you if you are to help them ..... God moves in a mysterious way His wonders to perform. Pride goeth before a fall. Do not think more highly of yourself than you ought are passages that I keep daily within my mind. And they help me greatly.....

... I did some microscopic work today. You seemed to be near me. The microscope was near the spot in my little den where we knelt and you made that never to be forgotten prayer. How God revealed Himself through those rotten tw igs, as one of the boys called the sticks .....

.... I am booked up pretty heavy next mo. in Ohio, Iowa. Will be in Des Moines, Indianola, and may touch Ames. Will be at the U. of Kansas and Denver, Colorado. I am packing up now for my trip. How I need your prayers....

.... My trip to Ames, while inexpressibly delightful, was disappointing because I did not have time to make the personal contacts I wished. It was talking, feasting, and toasting all of the time .... The "line-up seems fine. Personally, I do not care for the spectacular... Fine that we are to have a more dependable car, and yet that car last year brought out a side of your life that would not have been revealed had we not had such a car. Despite the car trouble I enjoyed the trip immensely... I feel that this is going to be a wonderful trip despite the fact that some of my friends here feel that it will not be safe for me in Mississippi.....

.... Another evidence of God's Care was the low physical condition in which I started out (For a lecture trip) Ordinarily I would not have attempted to make the trip as tired as I was, but somehow as the time drew nearer the more anxious I was to go. And I never spoke so many times a day, enjoyed it more, or returned in half as good condition. I was actually stronger when I returned, and have suffered no ill effects from the trip. In all my experience I have never seen God take such complete charge of you. He shone right through both your wit and wisdom. They

brought results..... You dear boys are making my life really worth living ...

.... Before we left for Miss. I made some collections of fungi, some distance away. Occasionally my mind would urge me to go back there again. The urge became so strong this morning that I went. I found the place grown up with weeds and briars. I began pulling dead limbs out, but the wasps had built a nest in it and soon ran me away, without stinging me. I stood afar off quite perplexed, started home, proceeded a little ways and spied another pile of brush. I went to it and found it to be one of the richest finds I had yet made. God closed the first door, that I might see the one open with greater opportunities. This is often so when we are sorely disappointed in some of our fondest dreams...

.... These are among the most marvelous days of my life. They are extremely happy days .... (1931)

.... I am enclosing a list of the names and addresses of members of the "little family", as you requested. Blue and white are my favorite colors .... I have a new man from M -- now, who drives up every Tues. night; he is in very bad condition. Nerves, stomach, much underweight, etc., etc., also thoroughly saturated with medicines ....

... I have thought so much about our trip, and going through all that water and especially the man who lost his dignity by having to roll his pants up and push his car through the water. I shall not soon forget the look on that man's face, and how you laughed ! .....The boy arrived tonight. I have had about an hour's talk with the dear fellow. You have sized him up just right. I will have him all day tomorrow and

until sometime Sun. He will make a great American. His story is most interesting and tragic as you say. He is a loveable boy.....

... Your splendid letter reached me when I needed it most. Three unfortunate things have happened recently to cause us to wonder and ask God's presence with us. One poor innocent fellow was killed yesterday by "hoodloms", another had his house burned and was asked to leave town. I could go on with similar things that are happening and cause us to shudder when we know that Vengeance is mine, I will repay, saith the Lord.... I felt the need of the woods this afternoon and I spent fully two hours communing with God out there.....

... Our little town is terribly upset, the last bank in town closed its doors yesterday. People are distressed, a number lost all they had saved for years. Of course I lost what I had saved from the Macon Co. bank disaster. Don't worry. Just pray that I may have health and strength and I will through God make enough to keep me comfortable ....

..... Last night a strange thing happened. A young man came to my door and said he was from Antioch, OHio. Hec said he read the article about myself* in the American*, and became enthused and came at once and wanted to study with me.....I feel such a responsibility upon me, letters are coming in by the hundreds from all parts of the U.S., one from Turkey. Visitors are pouring in, schools are reading the article to their pupils, preachers are taking their texts from it.. You must pray for me. I am dazed. They are not talking about me, they are talking about the mysterious movements of God as He speaks through me, just as He does through you.....

----- * The reference here is to an article about Dr. Carver by James Dawson Childs, in "The American Magazine", October, 1932.

The items concerning his "favorite colors" and "names and addresses of his boys" included in these letters had a special meaning and purpose of which Professor Carver was entirely unaware when he wrote them. During the fall of 1932 some of these boys planned a surprise for him -- a book made entirely by hand, bound in leather of his favorite shade of blue, and filled with letters written by members of his "little family", each trying to put into words something of what their friend and counselor had meant to him . It was for this book that they had written him, during the autumn months, for various bits of information to guide them in making and binding it . Just after Christmas there was to be a conference in Atlanta that would bring students and faculty members from colleges all over the South as delegates, and the plan was that the "Book of Friendship" should be presented to Dr. Carver then. There were heavy rains in December, however, that brought Alabama streams up to flood tide so that he was unable to get to Atlanta according to pre-arranged plans, and the book was taken to him at Tuskegee after the conference was over. To one of the "boys" who planned the surprise, Carver wrote first of his disappointment at not being able to go to Atlanta, and later of his complete surprise and delight in this token of his Boys' esteem:

Jan. 1, 1933

I was so disappointed that I could not get there. I was all packed ready to start Fri. morning. The river at West Point(Ala.) was reported rising, the water was then up to the first step on the bus. Mr. Abbott went to town to find out two or three times, all busses were running very late. Our boy,Archie, came down and spent the night. I was so happy to have him ....

Jan. 9, 1933

Well, I suppose that you are just about as happy as mortals get in

this world . I positively tip my hat to you for literally "putting one over on me". I do not recall ever having a job so completely done as this one, and I was so dumb as not to foresee what was going on. One time you aroused my suspicion when you asked about my favorite colors. I let it however slip by without further attention. Oneof the family almost "spilled the beans" several weeks ago when he wrote congratulating me upon the new honor and expressing regret at not being able to be present. I was yet too dumb to be impressed. So ordered. I can so thoroughly understand now why the high water cut me off, so I could not get to the meeting. I am sure I would not have exhibited much composure. I am quite sure I would have collapsed. This book is priceless, being the finest exhibition of "crystalized love" that I have ever seen. It is an expression of God shining through the souls of those upon whom He has laid His hand to do a very special work for him..... ~~Someone is talking to me all the time, I shall have to quit .....~~

On my first visit to Tuskegee, Dr. Carver brought this book for me to see. Handing it to me, carefully boxed and wrapped against rough handling, he "said, "Now take good care of it. It is one of my choicest possessions". And when I had read the tributes written upon the pages of that book, given him by his grateful "boys", I found myself touching the blue-bound volume reverently. It was, indeed, a choice and rare possession , and one not to be touched by careless hand or mind-- a volume of "crystalized love". And when three bank failures in 1933 had completely swept away from him-- for the time being, and in some measure, permamently -- the total financial savings of his life-time, he wrote to one of his boys " It has come to me withr enewed force for the last three days that my three bank failures were blessings in disguise. I believe that God wish-

ed to impress upon me that there were things of far greater value than money. For the present my money is gone, I am not worrying, suffering, or grieving about it. I feel that in God's own good time and way all wrongs will be righted. The thing that I prize most is the love of my dear little family that is constantly growing..... "

With two of these young men as tour director and assistant, Carver made two extensive lecture trips in southern and eastern cities and colleges in the spring and in the late fall of 1933. Traveling by car, these "boys" made of these trips the gay, rollicking adventures that delighted the perenially youthful heart of their teacher and friend. Cooking their meals over camp fires at times, they ate what their lecturer described as "raw meat". They played numerous pranks on him, even sending him a fake telegram inviting him to address a state legislature then in session -- actually fooling him not for one moment, he insisted; but they held to a different opinion! Making jokes of the curious crowds who at some places openly declared that they "just wanted to see what he looked like", these two would insist to the Professor that they must see to it that their "show animal" was kept in good shape. Making sport of the head-lines, they invented new names for him--"Wizard", "Magician", "Black Magic Man", and so on ! And for evidence of Dr. Carver's naively delighted response to all this youthful tom-foolery, we have only to turn to his letters to these two "companions of the road", in regard to various aspects of their tours:

" May this soak in pretty thoroughly, that two can play mighty pretty at that water ducking business. That raw meat wasn't a good thing for you, and I must see to it that you do not eat any more of it on our next trip .... Please make it clear to Mr. Elliott that we pre-

fer to meet the students rather than a small group of the "elite" at a dinner engagement .... Wallace has some new names for me, they are not coppywrighted as yet and I am sure he would be glad to have you add them to your list ... I could laugh when I found out that the dear boy was not hurt, but I was upset when I heard it. I often wish I could have seen you laughing at that poor unfortionate fellow you pulled out of the upturned car. You laugh with such ghoulish delight .... Letters are still coming in on our trip. It was great..... Now, listen, don't put that out that you have an article about a boy who was not worth a horse, for fear my table mates get hold of it and think it me. Then, too, if people generally get that idea, you will break up our 'Show'.... God does seem to be with us more and more on these trips. Echoes from our tour are still coming in, it is indeed astonishing what the Lord can do and will do with people when they are willing to be spoken through by Him. Strange to say I came back from this trip with none of the physical exhaustion that I suffered last year.. My, but didn't we have genuine fun ! "-- And then, speaking in more serious vein, he wrote "We cry, Peace, Peace! There is no permament peace where nations and races hate each other. These are times that try men's souls. Only the brave and thoughtful can brave and overcome such conditions" -- words much more prophetic than he probably knew.

Throughout the late twenties there were references in his letters to experiments he was carrying on with certain oils from peanuts, used in connection with massage for building up people greatly run-down physically. By 1930 he was writing a friend "I want to show you such a wonderful fulfilment of Scripture in the form of an oil for the production of fat and general rejuvination of the body. It lays on

fat in a marvelous way, clears the complexion and makes a tired, run-down person feel like a new person. It is a massage oil. I through God have taken it and done wonders with thin, underweight people, people who were tired and run-down, for "athletes", etc. etc. When you come I want you to know for yourself what it can do"...

And by this time, although this work of experimentation had gone on with no publicity-- as Dr. Carver wished it to continue to go on until he had much more evidence of proof of his theories concerning it,- there were a number of people here and there who knew from personal experience something of the possibilities for good that lay in this peanut oil massage. It was inevitable that news of this kind should be spread around -- and so it was with this. On December the thirtieth, 1933, the Tuskegee scientist lay down to sleep unmindful of the possibility that a new period of his life, a new era in his service to his fellow men, was about to be ushered in. But so it was to be, and was, with the morning of the next day.

Chapter XI - Experiments in Therapy
1933 - 1937

On December 31, 1933, the Associated Press carried a story beginning " Discovery of a mineral oil in peanuts that has aided in the recovery of infantile paralysis vistims was announced today by Dr. Geo. W. Carver, noted Negro scientist ..... etc". Before the day was over, cars were lined up before his rooms in Rockefeller Hall, and a new period in his work as a man with answers had begun.....

This chapter will deal with his activities during the years immediately following this AP announcement -- a period of work which turned out to be not only experiments in physical therapy, but of significance in the areas of mental and spiritual therapy as well --

1- Experiments with certain peanut oils combined with massage in the treatment of post-infantile paralysis cases-
   a-The astonishing response to the AP story, with hundreds of people wiring, writing, coming to see him for help,etc.
   b-His theory concerning the oil-massage treatment; his belief in its efficacy in certain cases
   c-The significance of the work in other than medical areas-- "probably the most significant and important piece of interracial work going on in America today"- (Dr. Moton)
   d-Carver's complete and tireless devotion to this work
   e- Medical skepticism concerning it, and other coments

2- Lectures and Recognitions during this period

3- Year-long celebration of his fortieth anniversay at Tuskeegee, culminating with unveiling of bust of him at Tuskegee, May, 1937

4- His severe illness and break-down,beginning in autumn of 1937

Chapter XII - UP in the Seventies

This chapter will deal with the years 1938 - to the Present, and will discuss

1- Long, slow recovery(partial) from the breakdown of 1937-38, making necessary curtailment of practically all public lectures, etc.

2- Removal from Rockefeller Hall to apartment in Dorothy Hall

3-Preparations for housing permamently his collections, exhibits, paintings, laboratory, etc. - Building set aside for this purpose, with green house, laboratory, offices, etc. ,near Dorothy Hall -- His work, as his strength permitted, in connection with these preparations, which go forward continuously now.

4- Plans for, and present work on, the plans to establish the Carver Creative Research Laboratories at Tuskegee, designed to carry on, under the direction of his present assistant, the work to which Dr. Carver has devoted his time and energies for years.

5- His continuing work in his laboratory today

6- Recent awards, recognitions, honors

a-School at Ways, Ga., dedicated to him by Henry Ford
b-Theodore Roosevelt Award for distinguished service in the field of Science - Presented in New York City, Fall of 1939
c- Speaker on 9th annual Herald-Tribune Forum - "Chemistry and Peace" Fall of 1939

7- Excerpts from his letters to his friends during this period