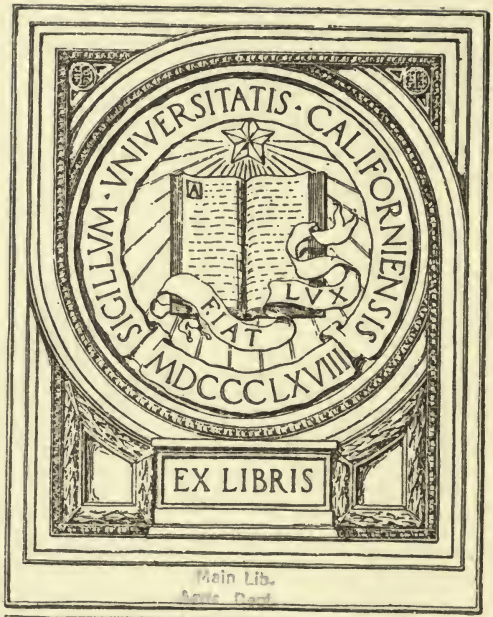
The Demonstration Work

O. B. MARTIN



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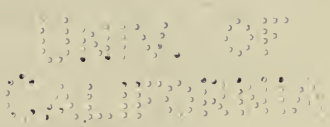

Dr. Seaman A. Knapp

The
Demonstration Work

Dr. Seaman A. Knapp's
Contribution to Civilization

By

O. B. MARTIN

FORMER STATE SUPERINTENDENT OF EDUCATION OF SOUTH CAROLINA, SPECIAL AGENT, UNITED STATES DEPARTMENT OF AGRICULTURE AND ASSOCIATE OF DR. KNAPP IN THE DEMONSTRATION WORK.

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Preface

THIS volume is written in order that the world may know more of the spirit and philosophy of one of its great benefactors. His vision and his heart power reached into every farm home and through that home he beheld the welfare of civilization. He had a plan of action and a program of work for every member of the farm family. He saw, too, how, by thrift, energy and co-operation, the father, mother, son and daughter could contribute to the support of the family and to the advancement and upbuilding of the best in human affairs. Furthermore, he organized all the forces of opinion and endeavor in the communities in the contributory activities of the demonstration and its development. Likewise the institutions of the State and Nation were shown how their material and spiritual resources could be used in the evolution.

Dr. Knapp loved the common man. He believed in the dignity of purposeful work and the democracy of opportunity to grow, to achieve and to help. In a rare degree he had the ability to idealize the material things and to spiritualize the common place and ordinary duties of life. Many thousands have caught his message because he did not approach them with abstractions.

The author has carried with him, in the study of Dr. Knapp's work, and in the preparation of these pages, an affectionate friendship and a sincere admiration. He desires to felicitate all those who may read what Dr. Knapp wrote and learn what he taught.

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The author further fondly believes that this book will prove helpful to every farm and home demonstration agent, as well as the people whom they serve. Likewise district and state agents, specialists and all other extension workers will find in it a professional manual and a standard to measure devotion, inspiration and success.

College and school classes will enjoy it and it may help prepare them for life.

In the principles he formulated and in the excerpts from his writings and speeches, teachers will find that new principles of pedagogy have been enunciated and new methods of education outlined. In fact, students of civilization, of society and human betterment in general will want to know more about the contribution of this agricultural statesman and philosopher, for men of his type do not often come our way.

Introduction

By Hon. A. F. Lever

In the following pages the author discusses graphically one of the most interesting and unique phases of educational development which has taken place in this century. The idea of teaching agriculture by the itinerant demonstration method in this country first attracted the attention of forward-looking thinkers about two decades ago. The present system of extension teaching as developed under the provisions of the Lever Act represents the inevitable conclusion of legislative endeavor in aid of agricultural education. It is predicated upon the thought that what is good for a limited few should be equally valuable to all people — men and women, boys and girls, either in college or university, or upon the farm. It seeks and has accomplished remarkably well the democratization of our system of agricultural education.

Like most great thoughts the method developed out of necessity. The inroads of the boll weevil into the cotton fields of Texas threatened the cotton industry. The situation presented a world problem. The best minds of the country concentrated their efforts to discover a means of defense. Out of all the thinking the only solution discovered was good farming. Logically, the next step was easy. If good farming is the best defense against ravishes of the most destructive of cotton pests, good farming might likewise and should solve the problems of rural life in its broader aspects. This line of

reasoning developed not only the idea underlying the plan of extension teaching, but more important than that it gave birth to the great ideal which underlies all this work, namely, the enrichment of country life.

The great ideal found its natal place in the fertile brain of the late Dr. Seaman A. Knapp, who became its greatest expounder, and who stands out toweringly among a bare half dozen really great agricultural leaders in the history of our country. He was a bold, aggressive, original thinker. His philosophy was tender and broadly sympathetic, filled throughout with the true missionary spirit of service. He was a great teacher, and a great leader, and an orator who had the divine gift of inspiration. Those who came within his spell found themselves unconsciously absorbing his zeal for service. His innumerable hosts of disciples today desire no greater compensation for their efforts than the consciousness of being engaged in service to the millions of farm men and women, boys and girls who must depend almost solely upon this creation of his for knowledge.

In unfolding this philosophy and in describing with such minute accuracy the development of this system, and the ideal underlying it, the author has contributed a real service, not alone to the immediate present, but likewise to the future. The story as told constitutes a thrilling chapter in the agricultural literature of our country and no one is better qualified for this kind of undertaking than the author, because not only is he a devoted disciple of the philosophy underlying the extension system of teaching, but he himself is entitled to much of the credit for its development. His work in promoting the method among farm women and farm girls has been and is an outstanding feature in the entire system. His early environment has well qualified him for his sympathetic

approach as well as understanding of the needs of the farm women, and these needs, after all, constitute the big problem of rural life.

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CHAPTER I

THE FARM DEMONSTRATION WORK

"We then learned the philosophy and power of agricultural demonstration"

THESE words were spoken by Dr. Seaman A. Knapp on May 4th, 1906, in a memorable address before the Ninth Conference for Education in the South at Lexington, Kentucky. He was referring to an event that occurred just twenty years previous to that date. In 1886 he had charge of a movement to settle a vast tract of land in southwest Louisiana. The descendants of the Acadians, described in Longfellow's Evangeline, were thinly scattered over that great domain and they made their living by looking after poor grades of live stock. They were not good farmers. Extensive advertising had been done in the Northwest and the settlers began to arrive. Of course many of them did not know farming under these pioneer conditions, so they soon became discouraged and demoralized. Dr. Knapp tells of a carload that arrived in the evening, looked over conditions, talked with the natives and left before breakfast. He said, "In this emergency we resorted to demonstration." He made an attractive offer to one good western farmer for each township. He saw that that man had proper instruction and guidance. In a few years successful object lessons were established. The immigrant movement was a complete success from that time forward and now there are more than 30,000 prosperous citizens in southwest Louisiana whose coming is the result of this

method of procedure. Thousands of these immigrants are among the most successful farmers, but best of all, the Acadians soon learned to do as well as newcomers.

A great prosperous section of the country is producing rice, sugar, cotton, corn and high-class live stock, where for centuries there had been swamp, prairie and waste land. "Such are the possibilities of demonstration," says the man who is responsible for its inauguration.

It might be easy enough to trace the great Demonstration Work, with its thousands of men and women agents throughout the country, to this simple beginning, but there must be something back of it. The man must have been prepared to meet the emergency when it arose.

It is worth while to know that for six years previous to this experience in Louisiana, Dr. Knapp had been professor of agriculture, and a portion of the time president of the Iowa State College of Agriculture at Ames, Iowa. It is worth while, also, to know that for eighteen years previous to that time he had been constantly engaged in agricultural pursuits and in writing for agricultural periodicals. He was editor of the *Western Stock Journal and Farmer* for three years.

Dr. Seaman A. Knapp, the Hon. James Wilson, for sixteen years United States Secretary of Agriculture, and Dr. Henry Wallace, who built up *Wallace's Farmer*, familiarly and affectionately known as "Tama Jim" and "Uncle Henry," worked together during this period for better live stock and better agricultural methods in Iowa. There is some significance in the fact, too, that the man who started the demonstration movement, had five years' experience as president of the Iowa State School for the Blind. He must have thought a great deal about the best ways to teach those who cannot see. The training given him in his boyhood by his

devoted elder sister, his study of English masters in order to be able to recite their contents to his mother, his graduation from Union College, Schenectady, New York, and his experience of eight years in early life as professor in academies of higher learning in the East, all had their effect in preparing the man for the movement and responsibility. We can get a slant on his processes of thought in the following quotation from an address he delivered while president of Iowa Agricultural College:

"The masses of people fail to understand that eyes were placed top of shoulders to see things. All along life's pathway from infancy to the grave they are stumbling over the world and scolding about their bruises. For threescore years and ten they pass in and out of the doors of their houses and yet do not know how wide nor how high they are. They never stopped to measure, nor thought to ask the questions. 'They could not build a respectable house, nor a barn, though building has been going on about them all their lives.' The gates are open, the bars are down, the stock is liable to do damage; they never notice it. They do not know the names of the flowers that bloom in beauty on their grounds, nor the grasses that flourish in their fields, nor the forest trees upon their domain, nor the birds that fill the air with melody. If they want to know more about farming they buy a book; if they have any pains or aches they send for a doctor. They refer all questions of law to the attorney and trust their salvation to the minister. Some of the greatest needs of the world are eyes that can see — eyes that stand out like the headlight of a locomotive."

"There is, also, a vast difference between the knowledge of a thing and that knowledge which enables us to practically make use of the thing. A chemist somewhat distinguished for his analysis and his lectures on foods tried to keep a cow for family use. By spring the cow looked like the latest resurrection from a boneyard, and in despair he came to me confidentially to learn how to feed her. The same chemist had been delivering lectures for some time on chemistry of domestic foods, when a little stranger came to his house. He thought it would be so much better to bring

it up on scientific food than to let it come up in the natural way. They adopted that method. At the expiration of one month his household inventoried, one wife, one sick baby, two wet nurses, two well babies, four hired girls, three hired men. This is not criticism on his knowledge, but that he had not learned how to use it."

"Is it not true that the easy thing for us to do is to learn general principles and theories, and the difficult part is to successfully apply them? The ten commandments are soon acquired, but it takes man's highest powers to practically apply them to the problems of life and mould a character in conformity with them. The pages of books are ink extracts from other people's lives; nature compels us to live our own lives."

An article in the *Review of Reviews* in 1911 by Dr. Wallace Buttrick, of the General Education Board, said that it took seventy years of preparation for the seven year's work done by this great agricultural philosopher and statesman in establishing the Demonstration Work.

Dr. Seaman A. Knapp was born at Schroon, Essex County, New York, December 16th, 1833, and died in Washington, D. C., April 1st, 1911.

Officially the Farmers' Co-operative Demonstration Work was begun in Texas in the fall of 1903, at least that is the date when the Department of Agriculture put up some money and took an active hand in the administration thereof. At the beginning of that year Dr. Knapp went to Terrell, Texas, solicited $1,000 from the bankers and business men and offered it as an indemnity to any farmer who would make a demonstration on his farm and accept advice and instruction when the periodical visits were made to him by Dr. Knapp throughout the year. Walter C. Porter volunteered. The boll weevil was approaching and neighboring fields were being damaged — and farmers generally were alarmed, and the whole business world where the boll weevil struck was demoralized. The demonstration on Walter Porter's farm was a success. He has

conducted demonstrations on that farm for the benefit of his neighbors every year since. His farming has constantly improved and he has prospered greatly. He was a leader during the world war in all of the patriotic and beneficent movements for the benefit of his county, state and nation. Some time ago he said to a Demonstration Agent:

"I thank God that Dr. Seaman A. Knapp put the principles of the demonstration into my life and work."

It is good that this man, who was literally the first demonstrator of the great movement as now constituted throughout the country, should have realized that he was furnishing object lessons not solely for the benefit of himself and family, but also for his neighbors. Thousands have followed in his footsteps and have been actuated and inspired by the same motive. It is almost superfluous to say that the bankers and business men did not have to indemnify him for failure. They turned that money over to Dr. Knapp to be used to employ an agent to get other men to do just what he had done. Other towns in east Texas were ready in 1904 to take up the program which had been inaugurated in Kaufman County.

The plan adopted by the committee at Terrell involved keeping in touch with the work on the part of the large number of business men and farmers who had subscribed to the guarantee fund, and who accordingly made frequent inspections of the farm in order to see how the work was progressing, a personal interest being taken in learning for themselves that the methods followed were in accordance with the best agricultural practices. Mr. Porter announced, after the final settlement of the operations, that he had cleared $700 more than he would have made under the ordinary methods of farming employed in that section. It was officially reported that there were 70 acres in the demonstrations.

It was in the autumn of 1903 that Secretary Wilson, of the United States Department of Agriculture, and Dr. B. T. Galloway, Chief of the Bureau of Plant Industry, visited the scenes of the boll weevil fight in Texas and also made a personal visit to Dr. Knapp and the work he was doing. They turned over to Dr. Knapp $40,000 of the Congressional appropriations which had been made to fight the boll weevil. This money together with the contributions of bankers, merchants, railroad presidents and business men generally, was used in the promotion of the work in different parts of Texas. Each agent worked a large scope of country, especially along lines of railroad. The following men were appointed as agents before the beginning of the next year: Messrs. Jas. A. Evans, W. F. Proctor, W. D. Bentley, J. L. Quicksall and W. M. Bamberge. They not only worked their sections of the state by getting some excellent farm demonstrations established, but they hunted other men to work other districts. Before the year closed more than twenty agents had been employed in Texas, and a beginning had been made in Louisiana and Arkansas by the appointment of one man for each state. The beginning of the following year, 1905, marked the spread of the work to Oklahoma and Mississippi. The following year is most significant, also because the county agency was begun. The general supervisors took more territory, but Dr. Knapp soon realized that the best local results would be secured with the county as the unit. The first five men appointed had a large share in the development and history of the work. Mr. Evans afterward became the head of the work in the South having succeeded Mr. Bradford Knapp, son of the founder, on January 25th, 1920.

The first county agent in the United States was Mr. W. C. Stallings, of Smith County, Texas. He was appointed No-

Secy. Wilson and Chief Galloway on visit to Demonstration Work in 1903

vember 12, 1906. In his report to the Department in 1908, after careful observation Dr. Knapp said:

"A few demonstration farms scattered throughout the county,—say five or six, such as would be the case where one agent had charge of seven or eight counties, — do not create sufficient public sentiment and moral force to change the long-established usages of the masses. There must be at least five or six demonstration farms and quite a number of cooperators in each township so that practically we reach every neighborhood, arouse interest and competition everywhere, and arouse the whole community. To do this requires at least one agent in each county."

In his report to the General Education Board about the same time he said:

"We are pleased to note the following encouraging conditions: First, the people everywhere receive our agents gladly and say the work is exactly what the country needs. All classes, merchants, bankers, educators, colleges, farmers' unions and individual farmers, are asking to cooperate."

But before tracing the development of the Demonstration Work any further it is interesting to give a few more facts from the history and the life of the promoter. In June, 1898, he was first given an appointment by the Department of Agriculture in Washington. During that year the Department sent him to Japan, India, China and the Philippine Islands as an Agricultural Explorer, with special reference to the rice crop. One result of his exploration was the introduction of Japanese rice into the Southwest. He exercised a very large influence in building up the rice industry of Louisiana and Texas, and was for a number of years President of the Rice Growers' Association of America. In 1901, he made a second trip into the Orient for the Department of Agriculture, and in 1902 made a trip and special report with regard to the agricultural resources of Porto Rico. From 1898 'till his death he constantly held appointment from the Department as a Special

Agent. His investigation and study of rudimentary civilizations in the East gave him a different point of view from the tourists who visit the cathedrals, art galleries and parliament houses abroad. He hired his interpreter and explored farms of British India. He was far back among the half clad Filipinos when the insurrection broke out following the Spanish War and the American occupation of the Islands. He was arrested by Aguinaldo's troops and was in danger of the traditional treatment before sunrise, but he convinced the minions of the Malay chief that he was the representative of the great white father and engaged in the peaceful pursuit of agriculture rather than in the destruction of his fellowmen. His extensive visits to China and Japan must have given him points of contrast, as well as comparison, when it came to an analysis of conditions and the planning of methods for the great movement in our American civilization. Bishop Gruntdvig, who was the great educational reformer of Denmark, said that any educational movement that is worth teaching at all is worth teaching historically. Out of the richness of the history of Dr. Knapp's life come floods of light on his mental attitude and processes of thought in the establishment of the Demonstration Work. He always tried to go to the bottom of the subject, and after full investigation, he threw himself into the task with unbounded enthusiasm. He once told Chancellor Barrow, of the University of Georgia, "That the South was destined to become a great agricultural country and that the Southern people would be conservators of the best American traditions." Chancellor Barrow asked him why he thought so. He said: "Because the germinating power of the South is five times as great as that of any other part of the country and your people are the purest anglo-saxon." In an address to the students of Clemson College,

South Carolina, in 1910, he advised the young men to purchase land as soon as possible. He called their attention to the fact that ownership of land in the old countries was necessary before the titles of nobility could be conferred. He described the great possibilities of independent and honorable life in the country in the South, and prophesied that lands in that Piedmont country would quadruple in value in a quarter of a century. Few of those present realized that his prophecy would come true in a decade, but many of those boys learned later that the advice was most timely, wise and appropriate.

There was no disposition on his part to minimize or discount the difficulties of his stupendous task. In his powerful speech at Pinehurst, North Carolina, on May 30, 1907, in which he made a wonderful portrayal of Southern conditions at that time, he said:

"Some years since a traveler said that the farms of the South looked like a bankrupt stock ready for the auctioneer; the soils were impoverished, the brush and brier patches conspicious; the buildings dilapidated, the fences a makeshift; the highways but little more than much-used bridle paths, the churches and schoolhouses were built upon the plan of inclosing the necessary space at the least expense, and the graveyards appeared as if the living did not believe in the resurrection."

"The viewpoint is not mine. To me the Southern States surpass all of the countries of the earth of equal area in material resources, mainly undeveloped. Underneath almost every acre is concealed a mineral wealth of surpassing value; within almost every acre are agricultural resources that, touched by intellect and labor, will reveal marvelous products. To me the Southern people are the purest stock of the greatest race the world has produced. The rural population has lived under unfortunate conditions for the best development, but the essential material of their natures is not impaired, and it requires but leadership to maintain great results."

He proceeded to change the conditions in accordance with his deliberate judgment.

During that same year, in his instructions to the agents, he showed his buoyant optimism and the great scope of his vision when he said:

"I estimate that there is a possible 800 per cent increase in the productive power of the farm laborer in the average Southern States, and I distribute the gain as follows:

Three hundred per cent to the use of more and better mules and farm machinery;

Two hundred per cent to the production of more and better stock;

One hundred and fifty per cent to a rotation of crops and better tillage;

Fifty per cent to better drainage;

Fifty per cent to seed of higher vitality; thoroughbred and carefully selected, and

Fifty per cent to the abundant use of legumes and the use of more economic plants for feeding stock."

It might seem easy enough to make estimates and to calculate percentages of possibilities. This agricultural prophet, however, based his judgment upon a thorough study of conditions as well as of crops and live stock. The purchasing power per capita of Southern people is already high enough to prove that his faith in them and their resources was not in vain. In traveling over the hill country of the South he longed to see the time when there would be more grasses, clovers, alfalfa and the summer legume crops. He called attention to the fact that as civilization advanced in countries with such topography, that more lands were devoted to grazing purposes. He said that in his boyhood, one-fourth of England was in grass and at the time he spoke that three-fourths of it was in grass and devoted to the live stock industry. But a little clipping from *Agricultural Farm Notes,* published while Dr. Knapp

An early cotton demonstration

A demonstration corn field

was professor of Agriculture in Iowa, shows that the founder of the Demonstration Work was thinking about pastures long before he saw the need of reform in this line in the Piedmont section of the Southern States. The same general observation might be made about any other of the subjects discussed in his 800 per cent estimates. In 1884 he wrote:

"The dry fall and the cold spring did not promise well for the pasture, and the middle of May has seldom found poorer on the College farm, but recent warm rains have changed the prospect; both pastures and meadows are looking exceedingly well. If short of hay in the winter, straw or corn fodder can be used, but a deficiency of grass in the pasture is such a sin against good sense that nature refuses a substitute.

During the warm days of July and August the fresh, moist grass appeals to an animal's appetite, like a dish of ice cream and strawberries. They must have such abundance of it, — no five cent dishes — that the cow can eat her fill in an hour and go to the shade. This will give regular meals and not compel the animal to lunch all day, because a satisfactory mouthful can not be had at one time.

It is easy to understand what kind of pasture the farmer has, who objects to shade, and claims his stock does better without it. The poor animal must travel from blade to blade all day in the hot sun and never know the satisfaction of a full stomach. But upon a luxuriant pasture, set with a variety of grasses, the cow fairly stretches her mouth to see how many tender leaves she can take in at once; she eats and eats till she fairly groans, then she sees another tempting bunch and says, 'I must have a little of that dessert. These clover salads and sweet scented vernal jams are too delicious to leave.' Then she goes to the shade and works her immense stomach full of material into milk which has no fever in it. By and by she looks out on the pasture and says, 'I must take another turn at those viands. They are too tempting for resistance,' and she fills her stomach again and stretches, and eats a little more and, finally, when driven home at night, she occasionally turns her head to one side of the path and takes a mouthful half clandes-

tinely, as a boy sometimes slips an orange into his pocket when leaving a grand dinner. Such pastures make good cattle."

Many leaders in education failed to grasp the full significance and power of the demonstration method of instruction, at first, because of its simplicity.

More than 3,000 educators were in attendance at the meeting in Lexington, Kentucky, on that bright May day in 1906, when Dr. Knapp outlined the principles and procedure governing the work which he had inaugurated in Texas three years before, and which had then spread to Louisiana, Mississippi, Arkansas and Oklahoma, but not all of them realized its meaning. He said:

"There is only one effective way to reach and influence the farming classes, and that is by object lessons."

"The demonstration must be simple, and, at first, confined to a small area. Two or three acres will give just as good a test as a larger tract, and at the commencement the farmer is more likely to successfully carry out a demonstration on a few acres than on his entire farm. When he sees the advantage of the better methods he will increase the area as rapidly as possible. Generally the farmer has neither machinery nor teams to inaugurate the plan on a larger scale at first."

"The men who act as field agents must be practical farmers, no use in sending a carpenter to tell a tailor how to make a coat, even if he is pretty well read up on coats. The tailor won't follow. The farmer must be a recognized leader, progressive, influential and able to carry public opinion with him. Public opinion is brought into harmony and made forceful by the support of the press and the cooperation of the best farmers and the leading merchants and bankers."

"Sometimes farmers have peculiar views about agriculture. They farm by the moon. Never try to disillusion them. Let them believe in farming by the moon or the stars, if they will faithfully try our methods. It does not pay to waste good breath on such matters. Avoid discussing politics or churches. Never put on airs. Be a plain man, with an abundance of good practical sense. Put

your arguments in a sensible, practical way. Secure the country village influence and induce the citizens to give active aid. When the tide of local opinion has set in favor of better methods of farming it will be found easy to maintain interest. In the monthly rounds of inspecting farms, never fail to notify eight or ten of the prominent men in advance and have as large a company as possible visit the demonstration farm with you."

"Can agricultural conditions be changed by simply talking? No. By demonstration? Yes."

In subsequent addresses and publications it seemed necessary to give additional exposition and explanation so that people who had charge of educational institutions, and who were giving academic and dogmatic instruction, should understand the philosophy underlying the work of this new type of itinerant teacher.

In a speech before the Conference for Education in the South in 1907, he tried to make the plan of work more easily understood by such explanations as:

"The environment of men must be penetrated and modified or little permanent change can be made in them. The environment of the farmer is limited generally to a few miles. The demonstration must be carried to this limited area and show how simple and easy it is to restore the virgin fertility of the soil, to multiply the product of the land per acre, to increase the number of acres each laborer can till by three or four fold, and to harvest a profit from untilled fields by animal husbandry. This is our Farmers' Cooperative Demonstration Work."

During this whole period he improved every opportunity to set forth the purposes, methods and principles of the Demonstration Work. He defined its aims as follows:

"The Farmers' Cooperative Demonstration Work aims at several things:

(1) To reform agriculture and make it an occupation of profit and pleasure.

(2) To improve rural conditions.

(3) To broaden and enrich rural life.

(4) To make the farm attractive and country residence desirable.

Dr. Knapp's analyses of conditions and his suggested remedies made a profound impression upon the public mind. He appeared upon many educational and agricultural programs. His writings and speeches were widely published and discussed. His direct method of approach to the very heart of the matter and his simple yet profound philosophy were not lost upon the thoughtful people of his time. For instance, in his argument for the necessity of greater earning power for the masses, he changed the viewpoint of many educators and publicists. It was another case of beginning at the bottom first. He made many deliverances similar to these:

"Every substantial advance in the progress of human society costs money and must be maintained by an increased earning capacity of the masses. Food and clothing are the first requirements. If the earning capacity of a people is only sufficient to supply these, progress is blocked and it is useless to insist upon better houses, more home comforts, schools, or any upward step. The problem is, are the rural masses unwilling to provide the betterments which a progressive civilization in the country demands — comfortable houses with the improved home and farm equipment, good school and more months of schooling, better highways, rural free delivery, telephones, etc, — or do they lack the means?

Upon the answer depends the proper remedy for existing conditions. If unable, steps should be taken to increase the earning capacity of the rural toilers; if able but unwilling, the rural pride should be aroused and the force of public opinion, and even law, brought to bear. Nearly every man, even among the poorest, will clothe his family better, improve his home, and add conveniences if he earns more. In the course of social investigations in rural districts for many years the writer noticed that invariably better clothing and more comfortable homes result from increased earnings. Go into a thousand villages in the South and ask the merchants if the poorest colored men would buy better clothes if they had the

money. The answer is! 'They will buy everything in sight — clothing, watches, buggies, etc.' Their expenditures may not be judicious, but it shows a desire to spend money to increase their comforts. Experience will correct the errors."

In the same bulletin he observed:

"The rural toilers must first be properly nourished, clothed and housed; it is the order of greatest necessity. The money to do this can not be given to them, and if it was there would be no uplift. They must be shown how to earn it by a better tillage of the soil and how to husband their earnings by greater thrift. Low wages, a small amount of work accomplished in a day, and an uneconomic use of resources are features of any civilization marked by a low earning capacity."

"The only remedy that can be sucessfully applied to help all the rural people, one that will be effective and immediate, is to increase the net earnings of farmers, and farm laborers. The paramount issue now is how most wisely and effectively to aid all the rural people. If each farmer is shown how to produce twice as much to the acre as he now produces and at less cost, it will be a profit in which all rural classes will share and will be the basis of the greatest reform ever known to rural life."

Although the method and machinery were simple, it was found necessary to explain it over and over again in order that the public mind might see them clearly and grasp them firmly. His experience doubtless confirms that of many other reformers and justifies the observation that the public mind is as simple as that of a child. Even in the most intelligent communities it takes one simple idea a long time to burn itself into the popular mind. In the presence of complex instructions the mass seems slow, obtuse and derelict. This practitioner was able to diagnose collective intelligence, so he constantly administered his helpful, homeopathic doses. In giving instruction on methods he said:

"It is of the greatest importance to confine the work to a few standard crops and the instruction to the basic methods and prin-

ciples which stand for the best results and to repeat this line of instruction on every occasion until every farmer works according to some system and knows the methods that make for success instead of charging failure to the moon, to the season, to the soil, or to bad luck. It requires several years to so impress these teachings upon the masses, even when supported by demonstrations, that they become the general custom of the country. The first year a few try the plan on small areas; the second year these greatly enlarge the area and some of their neighbors follow their example; the third year possibly 40 or 50 per cent adopt some of the methods, and so work progresses by the force of demonstration and public opinion until its general adoption is secured. No one is asked to believe anything not clearly proved."

"The campaigns for the ensuing year are planned in September, and active work commences in October by calling public meetings in every district to be worked, at which is shown the great advantage to all the people of increasing the crop yield two, three or four fold, and it is made clear that this can be done by adopting better methods. In country villages the banker, the merchant, and the editor join with the leading farmers of the section in indorsing the progressive plans of the Demonstration Work; farmers agree to follow instructions, and demonstration plots of one or more acres are located so as to place a sample of the best farming in each neighborhood of a county or district. There must be enough of these to allow every farmer to see one or more during the crop growing period. The necessary work on the plot must be done by the farmer and not by a Government agent, because the whole object lesson is thereby brought closer to the people. The demonstration farmer understands it better because he does the work and his neighbors believe that what he has done they can do."

"The process of changing the environment of a farmer is like that of transforming a farm boy into a scholar. First, the farmer is selected to conduct a simple and inexpensive demonstration. Second, a contract is drawn with The United States Department of Agriculture by which he agrees to follow certain instructions. Third, better seed is furnished him and his name is published in the papers. Fourth, each month when the Government's field agent goes to inspect his demonstration many of his neighbors are invited; con-

sequently, he will almost unconsciously improve his farm so as to be ready for company and cultivate all of his crops better. Fifth, a report of his extra crop is made in the county papers, his neighbors talk about it and want to buy seed. Sixth, he sells the seed of his crop at a high price. His neighbors ask him how he produced it. He is invited to address public assemblies. He has become a man of note and a leader of the people and can not return to his old ways. Soon there is a body of such men; a township, a county and finally a state is transformed."

It took only a few years for Dr. Knapp's reputation to spread. Calls came for him from state after state. He succeeded in getting small, zealous groups of devoted agents in every state which had been assigned to him. Then, as he visited their conferences in the states to encourage, inspire, and instruct, he continued to strengthen the foundations and unfold the plan of operation. He never lost an opportunity to tell governors, editors, congressmen, educators, and farmers about what had been done and why. The following extracts show the plan of organization and the method of procedure. They are taken from the Yearbook of the United States Department of Agriculture for 1908. The first also gives a summary of four years' work:

"The Farmers' Cooperative Demonstration Work is conducted by a special agent in charge, who reports to the Department of Agriculture. There are five general assistants and a full office force; also a corps of field agents is employed, classified according to territory in charge, as state, district and county agents. These agents are selected with special reference to a thorough knowledge of improved agriculture and practical experience in farming in the sections to which appointed. The county agents are appointed mainly upon the advice of local committees of prominent business men and farmers conversant with the territory to be worked. Each agent has in charge the practical work in one or more counties, strictly under such general directions as may be issued from the central office. District agents are expected to have not only a knowledge of scientific agriculture, but to be practical farmers and

to have had considerable experience in the Demonstration Work. State agents are strong and capable men, who have shown their ability to carry out successfully the instructions of the central office over a large territory, and they are especially qualified for the work by the possession of the tact necessary to influence men."

"The term 'demonstration farm' is used to designate a portion of land on a farm that is worked strictly according to our instructions. This is visited by an agent as often as once a month, if possible, to see that these instructions are carried out and to give any further advice necessary."

"A Demonstrator is a practical farmer, who works a portion of his farm under the supervision of a field agent, which tract he is expected to inspect at least monthly and report on same."

"A Cooperator is a farmer who agrees to follow the instructions of the Department, and make a general report at the end of the season."

"The Farmers' Cooperative Demonstration Work now covers portions of 12 states, employs 375 traveling agents, has many thousand demonstration farms, and potentially influences, through Boys' Corn Clubs, field schools and cooperators, a much larger number than are classed as demonstrators. At present it has close cooperation with six agricultural colleges and a large number of rural schools, assisting the latter to make field demonstrations. It also cooperates with state and county superintendents of public instruction in demonstrations for Boys' Corn Clubs.''

"This work is supported by Congressional appropriation, by liberal contributions from the General Education Board, by county aid, and by donations from boards of trade and private individuals."

It was a new thing in agricultural education to evolve a program like this in its simple effectiveness. Dogmatics and didactics had prescribed an effusion of knowledge upon a multiplicity of subjects. This leader would have the teacher do less and the pupil more. Each step must be carefully taken. Success must follow success. He would create the desire and then encourage the demonstrator to seek more knowledge as the needs increased. He would have him realize that he must

be a center of influence, information and power. In order to make a success of his enterprise he must learn from his neighbors, from agricultural papers and books, and from colleges and departments. This new status and position of the farmer himself meant a new attitude, and herein lies the reason for the reformation. May extension workers never forget the importance of this relationship. The farmer who is making a demonstration for his neighbors is the most important factor in this plan—and not the agent, specialist or professor who may be able to lecture learnedly upon agriculture. The evolution of the demonstrator is thus described in a circular written by Dr. Knapp in 1908:

"Every step is a revelation and a surprise to the farmer. He sees his name in the county paper as one of the farmers selected by the United States Department of Agriculture to conduct Demonstration Work; he receives instruction from Washington; he begins to be noticed by his fellow-farmers; his better preparation of the soil pleases him; he is proud of planting the best seed and having the best cultivation. As the crop begins to show vigor and excellence his neighbors call attention to it and finally when the demonstration agent calls a field meeting at his farm the farmer begins to be impressed not only with the fact that he has a good crop, but that he is a man of more consequence than he thought. This man that was never noticed before has had a meeting called at his farm; he concludes that he is a leader in reforms. Immediately the brush begins to disappear from the fence corners and the weeds from the fields; the yard fence is straightened; whitewash or paint goes on the buildings; the team looks a little better and the dilapidated harness is renovated. Finally the crop is made and a report about it appears in the county papers. It produces a sensation. A meeting is called by the neighbors and the farmer is made chairman; he receives numerous inquiries about his crop and is invited to attend a meeting at the county seat to tell how he did it."

"He made a great crop, but the man grew faster than the crop. There can be no reform until the man begins to grow, and the only

possible way for him to grow is by achievement — doing something of which he is proud. He is a common farmer. What line of achievement is open to him but doing better work and securing greater results on his own farm? As soon as the man begins to grow he will work for every rural betterment."

The observations made by the man in charge of the work showed that success was relative and progressive. Not all agents and not all demonstrators succeeded promptly and fully. He was able to see the difficulties and estimate rates of progress before the work had been going five years.

In 1908 in a publication of the United States Department of Agriculture, he said:

"It generally requires from two to three years to thoroughly impress the farmer that this lesson of making a greater yield per acre is a practical method of farming applicable to his entire farm. The first year he rarely carries out the entire plan. He has not quite faith enough, or possibly the season is adverse, but he generally succeeds so much better than he expected that the second year's trial is more thorough, with a correspondingly increased gain.

The farmer is a natural doubter. When he has harvested the larger crop the second year, he is frequently inclined to attribute it to one thing, generally the seed, because this is most in evidence, instead of distributing the credit between the better seed bed, and the intensive cultivation. Frequently his neighbors, full of the one-idea merit, offer $5 a bushel for the seed, thinking that the seed alone will make the crop. The third year the demonstration farmer is generally more of a convert and enlarges his trial area, frequently including his entire farm. In the meantime his neighbors have been observing and have commenced to inquire and follow his example.

It requires from three to five years to have the increased yield show a considerable average gain in the local markets. This depends however, somewhat upon the number of demonstrations established in a county. Where one can be placed in each neighborhood the progress is rapid, because the interest soon becomes intense. If only one or two demonstration farms are established in a county, the work does not create interest enough to arouse public sentiment and produce at once a strong opinion in its favor.

As soon as the primary lessons, as above explained, have been accepted and tested by a farmer, a secondary series is commenced, which includes —

(1) Demonstrations in conserving and enriching the soil by the use of legumes and winter cover crops. These involve a simple crop rotation and the turning under of green crops; also the prevention of soil waste or erosion.

(2) The value and uses of barnyard manures and commercial fertilizers, and how to apply them.

(3) Simple methods of farm drainage.

"The third series of lessons relates to better pastures and meadows and how to secure them; the most economic grain crops for work animals or to produce flesh as a supplement to the pasture and meadow grasses. This line of instruction is necessary, because the economic production of farm crops depends in a great measure upon an economic support of the work teams."

"The general method among the small farmers of the South was to depend mainly upon corn fodder and corn. Some had pastures, but rarely a good pasture. This method is expensive and causes a reduction in the number of animals kept for work to the smallest number possible and a corresponding substitution of hand labor. Modern methods of farming require considerable increase in the number and strength of teams. Profitable farming has become a team and implement problem. The improved pasture and cover-cured hay furnish foods of great economy and are sufficiently nutritious for the ordinary support of work stock. For heavy work a small addition of grain to the ration is required."

"If it be necessary in the interests of economy to produce upon the farm the food for the work animals it is still more important to produce, as far as possible, the food required by all the laborers and their families. The family garden, the poultry, and the cow are great cash economizers and pocketbook conservers and may be classed with the better teams and tools as essentials to better farm equipment."

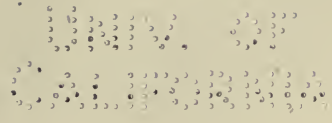
Thus it will be seen that he did not arbitrarily prescribe diversification of crops, but rather logical development of crop and live stock operations in the building of a farm. He also

provided for the evolution of the man, which was the greater thing.

He realized, however, in later years that there were yet many people at colleges, high schools and other institutions, who did not fully understand the nature of the work, which was still spreading so rapidly and getting such splendid results.

In 1910 he wrote a letter to a student at Cornell University, who wanted to engage in a debate upon the effectiveness of different methods of agricultural teaching. This letter is typical of many others that were written during that period:

"What is needed for the masses in the United States is a reform of farm methods. Now it is obvious to anyone who has observed, that mere school teaching merely instructs; it rarely reforms. The Colleges of Agriculture have been doing their work for over forty years and Farmers' Institutes and agricultural papers have been spreading knowledge in every direction, yet less than five per cent of the farmers in some states of the South has accepted any material improvement in their farm operations, and the great masses are as wedded to their old systems as before these educational movements were inaugurated. This is not an exception among farmers. Probably you will find that the inmates of any State's prison are just about as orthodox in their beliefs or theory of theology as the members of our best churches. They differ in their practices, and this illustrates the defference between farm theories and farm practices. The object of the Demonstration Work is to bring the best system of farm practices to the attention of the average farmer, in such a way that he will accept it. This is done by inducing him to set aside on his own farm an acre or more of land and manage it according to instruction given by the United States Department of Agriculture. What a man sees or hears he may doubt but what he does he cannot doubt and, therefore, if a man finds he can double his crop at a reduced cost for cultivation he becomes a convert to the principles of crop management as taught by the Demonstration Work. These sample farms are placed in every neighborhood, then monthly the neighbors are called to observe, investigate and discuss



Deep Fall Plowing

Using lime on Demonstration Field

the methods employed and to note the advantages of the methods taught by the Government over those practised by the farmers."

It is doubtful whether any publication ever issued from the United States Department of Agriculture, or from any of the agricultural colleges, has contained so much of epitomized and usable instruction as Dr. Seaman A. Knapp's "Ten Commandments of Agriculture." Hundreds of pioneer agents memorized them in their entirety; many others used them as themes for addresses. They were the texts of their sermons. Furthermore, they constituted the Demonstration Agent's creed. Agricultural conditions were changed and agricultural horizons expanded to meet the measurements herein laid down. These Ten Commandments are worthy of re-publication and constant consideration. They are as follows:

(1) Prepare a deep and thoroughly pulverized seed bed, well drained; break in the fall to a depth of 8,10 and 12 inches, according to the soil, with implements that will not bring too much of the subsoil to the surface. The foregoing depths should be reached gradually.

(2) Use seed of the best variety, intelligently selected and carefully stored.

(3) In cultivated crops give the rows and the plants in the rows a space suited to the plant, the soil and the climate.

(4) Use intensive, tillage during the growing period of the crops.

(5) Secure high content of humus in the soil by the use of legumes, barnyard manure, farm refuse and commercial fertilizers.

(6) Carry out a systematic crop rotation with a winter cover crop.

(7) Accomplish more work in a day by using more horse power and better implements.

(8) Increase the farm stock to the extent of utilizing all the waste products and idle lands of the farm.

(9) Produce all the food required for the men and animals on the farm.

(10) Keep an account of each farm product, in order to know from which the gain or loss arises."

The spirit, the methods and the instructions of the founder reveal the reasons why so many men of limited education succeeded in establishing the Demonstration Work in their counties. They caught the spirit, learned the methods and followed the instructions. A magazine writer who undertook to appraise the work being done by the Demonstration Agents at that time after witnessing the zeal, enthusiasm and devotion of the state, district and county agents, characterized their leader, the head of the work, as the "Missionary Bishop of American Agriculture." Doubtless he heard or read Dr. Knapp's instructions to the agents when he said:

"The power which transformed the humble fisherman of Galilee into mighty apostles of truth is ever present and can be used as effectively to-day in any good cause as when the Son of God turned His footsteps from Judea's capital and spoke to the wayside children of poverty."

There was no abatement of this zeal in Dr. Knapp's mind when he held up before the agents the ideal country life in these words:

"Let it be the high privilege of this great and free people to establish a republic where rural pride is equal to civic pride, where men of the most refined taste and culture select the rural villa, and where the wealth that comes from the soil finds its greatest return in developing and perfecting that great domain of nature which God has given to us as an everlasting estate."

Throughout the years in which the Demonstration Work was passing through its formative stages, the speeches, writings and conversations of its founder were full of the principles and philosophy underlying it. Many agents, farmers, business men, educators, congressmen and governors recall his enthusiasm and his eloquence. Ofttimes he reasoned as cogently and spoke as earnestly to one person as he did in

addressing a thousand. In many such cases the individual saw the light and felt the power of his plan and operation. All of the agents in the work in those days knew his policy with regard to publicity. He constantly impressed upon the agents not to push their plans in front of them, but rather get good results first and then let the people know about them. The success of the work in many counties is due to the fact that it was established upon this basis. He thought that agents who started out to organize their counties with speech-making tours and publicity campaigns were doomed to failure from the outset.

The following extract from a letter to one of his state agents shows that he discouraged contributions to publications unless there was something fit to print:

"I entirely agree with you. It is not advisable for our agents to rush into print too much. Our system is to do something and then we may talk about it in a judicious way, but to go on writing general advice and all sorts of loose talk to farmers is not in our line. Discourage it all you can. There are very few men that know enough to write a first-class letter for the newspapers every week, about agriculture. I doubt, if George Washington, Benjamin Franklin and Daniel Webster, were all combined in one man, whether he could write fifty-two first-class letters to an agricultural paper in one year. Perhaps he could, but I have never seen it successful. On the other hand, when there is anything particular to be said, and they will suggest the matter to you and take your advice, I have no objections to the agents going into print."

He never hesitated to write about events that had already happened and results that had been achieved. It was always a source of pleasure to him to tell about the rapid growth and development of the organization under his supervision.

The following quotation is taken from a letter that he wrote to the Editor of *The Sentinel,* in Marshall, Texas, in 1908:

"In our work we are in touch with almost every county in the Southern States and the awakening among the farmers everywhere is one of the most noteworthy and promising signs of the time. The cry has been, 'we need more labor,' but farmers are beginning to find that what they need is more machinery and better teams so that they can do more work in a day.

One of our demonstration farmers in North Carolina has been in the habit of employing four men and considerable day labor to cultivate his eighty acres of cotton each year. This year under demonstration he used our methods and found that the extra day laborers were not needed and even all of the four men he had always hired regularly could not be given employment. Thus, farmers are beginning to appreciate that the problem before them is to do more work with fewer men and to do the work better. This general development, or up-rising, we may say, of the South is attracting the attention of the world and is particularly impressing the best class of northern people, where lands have advanced to $100 an acre or more. This week I received a letter from one of the most prominent men in the United States, asking me to secure for him lands in the South, stating that he wanted to make an investment in lands instead of stocks.

Yesterday, I attended a convention of Virginia farmers at Richmond, Virginia, and from 800 to 1,000 of the sturdy yeomanry of the old state were present and I never attended a more enthusiastic meeting. This is a marked contrast with the apathy that has prevailed for forty years, or until we commenced our Demonstration Work a year and a half since in the old state. I predict now that the States of Virginia, the Carolinas and Georgia will go to the front in a very short time, but no state in the Union has greater possibilities than Texas. It is a grand state and while it has superb opportunities for investments and for homes, I think the great feature of that state is the progressive and cosmopolitan character of the people. Just get your facts before the people, because you have the facts to present. What a wonderful country you have; climate, soil, railroad facilities, pure water, plenty of timber and everything that makes for health and happiness. What a mistake thousands of farmers made in Iowa when they moved to the treeless plains of the Northwest, where they must pay 600 miles of freight

on a chip that they want to throw at a bird and then must pay for a post to hold the bird up while they throw the chip. Everything that goes to make civilization must be carted until the soil can pay tribute; food, clothing, building material, etc., while in your wonderful country of northern Texas, all these things are at the door. The great difficulty is to make people believe it. Now the very best way to make people believe is to do just as you have done in Harrison County, Smith County and Hopkins. Go to work and make prosperity at home and let the world know it. That is the best immigration movement I am acquainted with to-day. If a single acre of Harrison County land, with Harrison County peaches, and corn and cotton and vegetables, with Harrison County climate could be exhibited in the Northern States you would not have farms enough in Harrison County to supply the demand."

The next two quotations are selected from letters written in 1909 to a representative of the Department of Agriculture of Victoria, British Columbia, and to a member of the County Work Department of the International Committee of the Y. M. C. A.:

"Our men are divided into three classes:

First a State Agent who has general charge of the work within his state, we holding him responsible for everything that is done and for the getting of results. In numerous cases the counties and business organizations furnish a portion of the funds and the State Agents must look after all such matters and make all arrangements, subject to our approval.

Second, one or more District Agents, provided the state is a large one. These District Agents work as the lieutenants of the State Agent and visit the Local Agents once per month, or oftener if necessary, and see that they are carrying on their work in the best manner possible. They are the drill masters and inspectors of the Local Agents.

Third, the Local Agents who travel by team from farm to farm giving personal instructions to the farmers. In the growing of cotton and corn in the Southern States, and especially in that section of the country infested by the Mexican cotton boll weevil, it

is important that planters be visited by the Local Agents at least once per month to see that they are carrying out instructions.

The first year we ask a man to plant as a demonstration from three to five acres and work it exactly according to our instructions. This is used as an object lesson in that community, the farmer using his own land and standing all the expenses of the cultivation of the demonstration as the crop is his, except the first year when we furnish him the best selected seed we can get. After the first year he is taught to believe it is not a demonstration unless it is profitable and when the farmer proves this point to himself he will readily take it up on his own place. When the Demonstration Work was first started with a few agents in Texas we did not have them divided into classes; but personally supervised them from our office which was then located in Houston.

To the Y. M. C. A. man he wrote:

"These improvements in farm practices and rural conditions are made effective by a thoroughly organized system of rural teaching by which the farmers are induced to work out the several problems upon their farms and in the communities.

This work under Government control was first undertaken in 1903 in Texas to teach better cultural methods as a means of combating the Mexican boll weevil. It was found of such wide application that it was broadened to help general conditions on the farm. It finally attracted the attention of the General Education Board as a means of improving agricultural conditions, and in 1906 the Board inaugurated cooperation by appropriating funds to be used under the direction of the United States Department of Agriculture to extend these methods in non-boll weevil territory and thus supplement Government appropriations. The plan adopted at the beginning of the work, namely, the demontration of the principal crops by the farmer, on his own farm, at his personal expense, under instruction given by the agent of this Department, has been found so universally efficient that it has been continued. As the greater product of the field is evident and belongs to the farmer he is readily convinced of the superiority of intensive methods and no amount of argument can change his views.

This work has grown in seven years from one demonstration farm at Terrell, Texas, in 1903, and one travelling agent, to 13,471

demonstration farms and 34,176 cooperative farmers in 1909 distributed over eleven Southern States with 367 traveling field agents who visit these farms and give instructions.

At intervals during the crop-growing period the farmers of a community meet with the Government Agent on a demonstration farm and a field school of instruction is held. The results have been to thoroughly acquaint the farmers with the best farm practices and to cause rapid improvement of farm methods in rural communities where work has been conducted."

Many active and enterprising congressmen caught on to this new line of work in the Department of Agriculture very soon after it was established. They vied with each other in trying to get agents in their respective districts. Dr. Knapp wrote many letters to these congressmen diagnosing their climatic and soil conditions, and also explaining the genius and power of the work which he had in hand. He knew enough about people and leadership to utilize the energies of the congressmen, and he was sagacious enough to avoid any of the complications of politics.

The following extract from a letter to a Louisiana congressman is fairly typical of many volumes of letters in the official records at Washington:

"You have asked me to give an opinion on the agricultural possibilities of the South. The subject is so large that it will be necessary for me to classify, and consider it under about four heads, as follows:

(1) Corn, hay, pasture and forage crops.
(2) Stock-raising.
(3) Fiber plants.
(4) Truck farming.

It has been thought till recently that the South would not raise large crops of Indian corn but a little demonstration has proven that the soils and climate are especially adapted for that purpose and that larger crops can be raised than in the so-called corn states. Climatic conditions are much more favorable for the corn plant and as a large portion of the plant is of atmospheric origin, climate is

of primary consideration. All that is necessary is to prepare the soil in the best way and use good farm methods and the South will develop into one of the best corn regions of the United States. We have produced the past year, under test, from eighty to one hundred and fifty bushels of corn per acre. For pasture and hay the South is also superior to most of the northern states, first because of the great rainfall and secondly, because of more favorable climatic conditions. The reason the South has not developed in this line is because the farmers have been so engrossed in other crops that they have paid but little attention to hay and pasture lands and have failed to use the best methods. Under trial the past year we have been able to produce from four to six tons of hay per acre where the soil was thoroughly prepared and the proper seed used. Then there is a great variety of forage plants, such as the velvet beans, the cowpea, soy beans, Japan ribbon cane, etc., that grow with amazing vigor in the Southern States and are exceedingly nutritious so that there can be an abundant supply of forage for stock all seasons of the year.

In three respects a large portion of the South is superlatively adapted to stock-raising. First, because of the abundant forage that can be provided, as stated above, and secondly, because of the temperature which is so mild that it does not tax the vitality of the animal, and it reduces the amount of food necessary to sustain life and vigor. Thirdly, as compared with the extreme North there is a great reduction in the expense of providing shelter in the winter, all of which means an addition to the the vigor of the animal, and its immunity from disease such as tuberculosis, etc. Then the longer period of pasture makes it more economical. The comparatively low price of lumber for building purposes is another important item.

These facts are especially emphasized in case of pork production. Hogs can be pastured the year round on a variety of pasture forage that will nearly mature them for market without the addition of corn. Under the final adjustment of agriculture in the United States, I believe that a large portion of the South will be found preeminently adapted to dairying, to the production of horses, mules and swine; poultry and in the mountain districts to sheep, that it will be found that they can be raised more economically there than in most any other portion of the world."

A similar thought is contained in this brief extract from a letter to a prominent member of the Federation of Women's Clubs:

"One of the foundation principles of our work is that the farmer should raise the food for the family and for the farm stock so that his principal cash crop may be all profit. If your people will take that as an axiom to live up to, I believe that it will help them.

This development in agricultural education was not lost upon the bright and inquiring representatives of foreign nations. The Minister from Siam requested Dr. Knapp to send one of his leading agents to that country as adviser to their king along agricultural lines. Delegations dropped into the Department of Agriculture from England, France, Australia, South Africa, Argentine and other parts of the world to learn all they could about the Demonstration Work and to transmit it to their own countries. One of the most thoughtful of these visitors was Honorable Theodore Krystofovich, Agricultural Commissioner of the Russian Government. In 1909 Dr. Knapp wrote him as follows:

"We have found in the United States that the main cause of small production in a crop is due to a poor seed bed, imperfect seed and unwise cultivation. We have, therefore, laid great emphasis on the improvement of the farm in these three things. I have no question but that this will apply to all parts of the world. By improving the seed bed, seed and cultivation, we have been able to increase the crop two or three times and sometimes four or five fold, with no additional cost.

I apprehend that you will find it necessary to modify somewhat our American plans to adjust them to Russian conditions. For our state and district agents we employ men of education and experience, but we are able to find very intelligent and progressive farmers in every section of country who can, at a nominal salary, take up the work of local instruction. It is possible you may find a similar class in Russia, but I apprehend not so generally as in the United States. We find it important that the local agent shall be a man in

good repute with the people and whom the people will readily accept. We prefer even that he shall be less broadly educated and have the quality of acceptability than to be more highly educated and less familiar with the people with whom he is to work."

In view of the fact that the demonstration method was able to penetrate more communities and reach more backward people than any other method of approach thus far devised, it is of extraordinary interest to note what Dr. Knapp did in his dealings with negroes. It is evident that his experience and observations among the brown people in Asia were not lost when it came to making plans for the colored race in the United States. In this connection he said:

"It is on the thrift, prosperity and independence of the average man that our citizenship is based. Now, where must we start? In thinking out this problem the main point is to start at the bottom. In attempting to raise the condition of the colored man we frequently start too high up, and in talking of the higher progress talk right over his head. When I talk to a negro citizen I never talk about the better civilization, but about a better chicken, a better pig, a white-washed house."

The following extract is taken from a letter he wrote in 1909 to a negro district agent who was just beginning his work:

"In taking up the work among the colored people on the 1st of October, which is the beginning with us of a new year, we would like to have you not only carry out the different items in your own territory, but be sure and visit each of the colored agents at least once per month and spend a few days with them, going over their territory and telling them what their duties are, not criticising any points too severely, but simply suggesting in such a way that the work may be of the greatest efficiency. The principal points that we wish them to look to for the next year are as follows:

A garden all the year to supply their home needs, enough corn and hay for their own use, with some to sell, and a good barn for storing it, a cow and pasture in which to keep her; an increase

in the number of poultry and swine; molasses mills in each community to make syrup; canning fruit and vegetables to supply the family; whitewashing or painting the houses, cleaning up the weeds around the farm and the home."

In like manner his outline for short courses as furnished to Dr. H. B. Frissell, late principal of Hampton Institute, Virginia, has much valuable suggestion in it for short courses anywhere. It also has in it much of prophecy of the future development of the Demonstration Work as it affects the home:

"In discussing the matter of short courses for farmers with just ordinary education, it was the consensus of opinion of all who have been engaged in the work in the Northwest, that we should begin with very simple things, and this would be especially applicable to colored farmers. I will name a few lines of work which I think are especially important:

1st. Crop production. The preparation of the soil for the best results; particularly deeper fall plowing and a winter cover crop.

2nd. Making a good seed bed in the spring just like a garden, so that the plants will come up quickly.

3rd. Proper depth of planting the seed.

4th. Reasons for intensive and shallow cultivation.

5th. The value of good seeds, and how they should be selected and stored.

6th. The importance of planting more leguminous crops, — first, as an economic crop for feeding animals, second to increase the nitrogen and humus in the soil. (Mention especially crimson clover and cowpeas.)

Along the same line would be the importance of increasing the number of domestic animals on the farm so that the pastures can be made available. In this connection, the judging of animals for beef and for milk, should be considered. In case of beef, the importance of securing animals that put on the flesh at the most valuable points, and the great importance of selecting animals that lay on flesh rapidly, showing that some animals make flesh at a great deal less expense than others, because there is a dead loss in every animal of the amount necessary to carry on the forces of life.

In selecting for milk, teach the points of judging, and the great importance of selecting for large and rich milkers, showing that one cow to produce milk at one-half or possibly one-third the cost of another, hence the best animal for beef and for milk is the economic animal.

Poultry raising should have a place in the Short Course, and the importance of selecting the hens for the number of eggs and the kind of eggs that they produce, especially showing that the smaller animals are the most economic so far as food production is concerned.

I think the above is perhaps sufficient. It is better to drive home a few points most thoroughly than to undertake to teach too much, but in connection with every short course I would impress the importance of having a comfortable home and household conveniences, as well as a yard with some lawn and some flowers, the latter for civilization."

What wonderful sweep and power in the last four words of this outline!

It must not be assumed that Dr. Knapp had easy sailing in the formative days of the Demonstration Work. He encountered indifference, prejudice and opposition. On November 16, 1906, when his headquarters were at Lake Charles, Louisiana, he issued an interview from which the following quotation is taken:

"There has been some misapprehension among farmers in regard to the Farmers' Cooperative Demonstration Work. Many have supposed that the instructions all come from Washington, and were not adapted to Southern conditions. This is not correct. The instructions given out for this work are made upon the following plan: First, a compilation of all experiments, relating to a given crop, by the Experiment Stations in the cotton states, is carefully made. For example: All the experiments in relation to the preparation of the soil, the planting and the cultivation of cotton are compiled. Then the experience in planting, of a large number of the best cotton farmers in the South along the same lines of work in cotton is carefully noted. In addition to this the observation and experience of all the traveling agents of this Department are

brought to bear upon the instructions, to correct any defect that may be in them. Thus our instructions have the following elements of perfection: First, what the Department at Washington knows from its vast stores of information about cotton; secondly, what the State Experiment Stations in the South have demonstrated to be the most advantageous, thirdly, what the best farmers in the South have tested and proved the most successful upon the farm; fourth, the knowledge obtained by the traveling agents of our Demonstration Work, who especially visit and have personal knowledge of every portion of the states in which they are stationed. Even then our instructions are along lines of correct principles, leaving many details to the good judgment of the farmers."

On December 6th of the same year he issued a letter to the agents in which he told them about his visits to Washington and New York in the interest of the work. He said that nothing had been done towards putting in an extra appropriation for fighting the boll weevil on the front lines of its advance. He said the Secretary of Agriculture and the Chief of the Bureau of Plant Industry were anxious to help, but had been unable to do anything because of the jealousy of other departments, and suggested that the initiatory move should be made by the people. In this letter he adroitly and wisely suggested methods by which the people benefitted by the work might let their congressmen know about it. Sufficient to say, the appropriation was forthcoming. Afterwards money came as rapidly as Dr. Knapp was willing for it to come. He wanted additional territory taken up and additional work done only upon the basis of previously demonstrated success. It is interesting to note that while on this trip he met about twenty of the "wealthiest and most progressive men in New York." He also addressed a large influential body of educators at the University of Virginia. He told the agents that the trip would benefit the cause in which they had enlisted. The General Education Board soon made liberal appropriations in the

Southern States where there was no boll weevil, while Congress increased its annual allowances where this pest existed.

Many forms of campaign and propaganda have been directed at the people through the extension service. It is a great machine and is productive of good results when properly used. A good example is found in the famous Circular 30, "Hog Raising in the South." This little eight-page pamphlet was prepared by Dr. Knapp and issued direct from the office of the Secretary of Agriculture. This special circular of instruction was used by hundreds of agents, and thousands of farmers seemed to realize, for the first time, that the hog is a grazing animal and that pork can be produced at small cost where excellent pasture is provided for the hogs. He laid out a systematic plan for such a pasture with its summer and winter grasses, grains and legumes. That simple diagram has been transcribed upon the ground in numerous communities with modifications in the plantings, and the increase in hog production in the Southern States is largely due to this simple, short, direct, epitomized bulletin of instruction, and its use by the agents and demonstrators.

The development of the Co-operative Demonstration Work as an educational movement was very rapid. It was natural and logical that the boys should want to do the manly thing and become demonstrators because their fathers were succeeding in that line. It was only a matter of time, too, when the principles and methods of the Demonstration Work should reach the other members of the family. Before permanent legislation had been enacted by Congress incorporating the work into the statutory law of the land, it had become not only Farm Demonstration Work, but also Home Demonstration Work, and women agents were appointed in all of the Southern States. There were more than 500 men agents and

more than 200 women agents engaged in their regular duties before the Lever Extension Act was passed.

While Dr. Knapp confined his activities mainly to the Southern States he made numerous visits about this time to other parts of the country. He addressed large audiences of national educational and agricultural associations. The University of Wisconsin conferred a doctor's degree upon him after he delivered an address to a large meeting of farmers there. It was his opinion that the work was as much needed in New York and New England as in the old South. A few months before his death he made a trip to the scenes of his childhood and early manhood in New York and Vermont, and when he saw failing soils, deserted houses and indifferent farming he longed to see his work inaugurated there. He reasoned, too, that it should be done in the middle and western states where the process of soil depletion was in operation, but had not gone so far as it had in the older states. The census figures showed that the average yields of corn in some of these states were lower than they were forty, twenty and ten years before. This would indicate that excellent demonstration work should be constantly done even in the wealthiest and most intelligent communities in order to keep them wealthy and intelligent.

During 1914, the year when the Lever Bill became a law, there were 781 Farm Demonstration Agents and 351 Home Demonstration Agents. Members of Congress were familiar with the work because they had seen the results of it in their districts. Many of them became so interested that they secured lists of the demonstrators and club members in order that they might send them yearbooks and publications. They realized that their farmers would profit by that kind of agricultural literature, while they knew that thousands of such books and

publications had been wasted by indiscriminate distribution. Among the Congressmen who had kept in close touch with the Demonstration Work, even to the point of traveling with county agents on their rounds of duty, were Hon. A. F. Lever, of South Carolina, and Senator Smith, of Georgia. These gentlemen, as well as many others, distinctly stated in their addresses in the Senate and House of Representatives, that they favored appropriations for the Extension Work because of their personal and intimate knowledge of the success of Dr. Knapp's work in the South. Articles were published at the same time in leading magazines of the country showing Dr. Knapp's methods and the successful results.

In an official report which Mr. Lever submitted from the Committee on Agriculture to the House of Representatives on December 8, 1913, he said:

"Various agencies have been tried as a connecting link, with various degrees of success. The printed page is insufficient. The bulletin and agricultural press have not been found effective in reaching and impressing the farmer in the remote districts, who most needs the information. That late Dr. Seaman A. Knapp, founder of the Demonstration Work in this country, said:

'There is much knowledge applicable and helpful to husbandry that is annually worked out and made available by the scientists in the United States Department of Agriculture and in the State Experiment Stations and by individual farmers upon their farms, which is sufficient to readjust agriculture and place it upon a basis of greater profit, to reconstruct the rural home, and to give country life an attraction, a dignity, and a potential influence it has never received. This body of knowledge cannot be conveyed and delivered by a written message to the people in such a way that they will accept and adopt it. This can only be done by personal appeal and ocular demonstration.'

"His judgment was correct, and to meet the deficiency of the bulletin and agricultural press in impressing the farmer there arose the system of undertaking to do this by means of the lecture

institute work, as the bulletin and lecture has its place in the extension field, but the best thought of the country had concluded that the characteristic attitude of the farmer is such as to make the development of some other system of reaching him with the best practice of agriculture a pressing necessity.

The farmer is naturally conservative, and to an extent skeptical of new methods. His habits of thought and methods of procedure are well settled upon him, and he is slow to change either unless convinced beyond any doubt of the wisdom of doing so.

To him experimentation with new methods seems to be, and is, in the nature of a gamble and the farmer cannot afford to gamble. He may read the bulletin and hear the lecture, but unless he is shown that the method proposed for handling his business, shown under his own conditions, is better, he will not accept it as against his own, which has provided a living at least for himself and family. It is not sufficient to tell the farmer that his method is not the best. He must be shown the best methods. The appeal must be made through his eye. He will quickly accept new principles and practices if their value is demonstrated to him under the environment in which he lives, and the system of itinerant teaching, which Sir. Horace Plunkett says, 'has stood the test better than any other,' is predicated upon the idea of the willingness upon the part of the farmer to adopt those methods which have been proven to him personally to be most effective in his business.

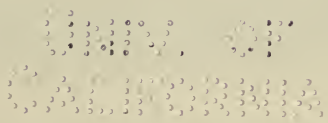
The fundamental idea of the system of demonstration or itinerant teaching, presupposes the personal contact of the teacher with the person being taught, the participation of the pupil in the actual demonstration of the lesson being taught, and the success of the method proposed. It is a system which frees the pupil from the slavishness of the textbooks, which makes the field, the garden, the orchard and even the parlor and kitchen classrooms. It teaches us to 'learn to do by doing.' As President Wilson said: 'It constitutes the kind of work which it seems to me is the only kind that generates real education; that is to say, the demonstration process and the personal touch with the man who does the demonstrating.' ''

CHAPTER II

BOYS' FARM CLUBS

AS far as the records of the United States Department of Agriculture go, they indicate that the first Boys' Corn Club was organized in Macoupin County, Illinois, in 1899. It grew out of the failure of the Farmers' Institute to secure an attendance. The Secretary of the Institute conceived the idea of distributing some good seed corn to the boys of the county, have them grow some good ears of corn and bring them to the annual meeting of the Institute. He reasoned that if the boys came, their fathers would come also. He was not mistaken—they came in large numbers. In this and other counties in Illinois, as well as in other states of the middle west, this idea was taken up right generally between 1900 and 1905. Boys grew small plots of corn in order that they might have beautiful ten-ear exhibits to take to the fairs. In fact, the ten-ear exhibit idea seemed to be the sole basis of award for prizes. It was felt that by emphasizing the good points of an ear of corn, that better seed corn would be generally used. Perhaps this idea was overworked until some of the Experiment Stations began to show that these beautiful ears did not always produce the largest yields, at least it was found that the yielding power of seed corn depends more upon its ancestry and history.

When Dr. Seaman A. Knapp began to organize Boys' Clubs as Junior Farm Demonstration Work, the Boys' Corn Clubs of the middle west had passed the zenith of their



Dr. Knapp with Jerry Moore and other prize winners of 1910

activity and usefulness and were somewhat on the decline. After the Farm Demonstration Work had been going on for about four years, it was reported from Mississippi, from Texas and other states in 1906-07, that the boys wanted to have a hand in this new enterprise. Dr. Knapp realized the possibilities of utilizing the energies of these newly formed purposes. He realized, also, that a county agent could only look after a limited number of individual demonstrators. For this reason he said that "We must organize the boys so as to handle them in groups." He grasped the idea of having the Corn Club Boys demonstrate to the nation and to the world that the South could grow large yields of corn. Of course he did not lose sight of the fact that each of the boys would be helping his community and his county with these same object lessons.

In the beginning of the systematic effort to organize boys wherever the Farm Demonstration Work had gone, the following objects were held up to the agents, school officers, teachers and others interested in promoting the Corn Clubs:

"(1) To place before the boy, the family, and the community in general an example of crop production under modern scientific methods.

(2) To prove to the boy, his father, and the community generally that there is more in the soil than the farmer has ever gotten out of it; to inspire the boy with the love of the land by showing him how he can get wealth out of it by tilling it in a better way and keeping an expense account of his undertaking.

(3) To give the boys definite, worthy purposes at an important period in their lives and to stimulate a friendly rivalry among them.

(4) To furnish an actual field example in crop production that will be useful to rural school teachers in vitalizing the work of the school and correlating the teaching of agriculture with actual practice."

Some statement of reasons for Corn Clubs was thought necessary, too, and it was made in these words:

"Corn was selected for the first demonstrations, because it is a plant that can be profitably produced in most sections of the United States. The boys throughout the country have common knowledge of it from childhood, and the lessons seem easy. Corn yields more food to the acre in most sections of the United States, when properly handled, than any other grain crop. Food for men and animals is one of the first necessities. Cheapness of production is an important item. The growing of more and better corn in the South is necessary for better farm conditions. It forms part of a proper rotation for soil building and will furnish feed for a more extended live-stock industry. It is the foundation crop for home use in most of the Southern States. Its more extensive growth will encourage diversification."

It was stated further that, "The Farmers' Co-operative Demonstration Work is not undertaking the organization of these clubs to teach agriculture in the public schools, but it is seeking through its field force to instruct boys in practical agriculture on the farm." Of course it was realized that the reflex action on the school would call for more interest and activity among the teachers, in corn, in potatoes, in pigs, in calves, and in farm matters generally.

Dr. Knapp also observed:

"The Demonstration Work undertakes to create in the schoolboy a love of the farm and a new hope by showing the wonderful possibilities of the soil when properly managed and the ease with which wealth and distinction are achieved in rural life when science and art join hands. This is worked out by the cooperation of the demonstration workers, the county superintendent of public instruction and the rural teachers."

At the very beginning of the organization of Boys' Corn Clubs in connection with the Farm Demonstration Work, Dr. Knapp insisted upon standardization. He said every boy should undertake to demonstrate with an acre of land so that

if he broke any records in corn production that it would be upon a full acre basis and not upon any little rich garden spot, for which the boy would have to apologize and explain that at this rate it would be such and such yield per acre. Dr. Knapp went further in his standardization work. He insisted that the ten-ear exhibit should be only a small part of the basis of award. It was his suggestion that the cost of production should figure as one of the main items. It was at his suggestion, also, that each boy should write a history of his crop. He realized the beneficial effect on the schools and teachers, when thousands of boys began to write compositions upon living themes, in which they were intensely interested, instead of upon abstractions. Not only have thousands of interesting stories been written in good English by the Club members on how their crops were made, but hundreds of these bright boys have stood upon their feet and made public talks to large audiences along the same line. There has been no collateral influence touching upon teaching in the schools which has been more beneficial and far-reaching in its application and use than the farm and home clubs in connection with the Demonstration Work.

The basis of award that was agreed upon in Dr. Knapp's office and adopted generally in the Southern States for the awarding of prizes in the Corn Clubs was as follows: Yield, 30%; Showing of Profit, 30%; History, 20%, and Exhibit, 20%. These ideas and these percentages entered into the bases for judging other crop and live stock club work everywhere.

Although the different phases of work represented in these different items were stressed, and an effort to maintain a proper balance was constantly kept up, the question of large yields was an engrossing one in the public mind for several

years. Very few people realized, previous to that time, that it was possible to grow more than 200 bushels of corn on an acre. In fact, it had been done only a few times in the history of agriculture. Capt. Z. J. Drake, of Marlboro County, S. C., had produced 254 bu. 3 pks. on an acre in 1889, and had won a $1,000 prize. His cost of production was large, however, and the club boys had to limit their expenditures. The following list of boys making the four highest yields and the best records in each state for the first few years of the Corn Club Work in the South are worthy of permanent record:

"Alabama — Walker Lee Dunson, Alexander City, Yield 232.7 cost $.199 per bu. Ewell Hickman, Troy, Yield 225.25, cost $.219. Eber A. Kimbrough, Alexander City, Yield 224.75, cost $.198. Junius Hill, Atalla, Yield 212.5, cost $.086.

Arkansas — Willie P. Brown, Hamburg, Yield 172.32, cost $.142. Edwin Moore, Hot Springs, Yield 155.25, cost $.165. Joe Reed, Johnson, Yield 142, cost $.18. Dillard Wyatt, Rosie, Yield 131.14, cost $.32.

Florida — J. R. McVicker, Baker, Yield 191.1, cost $.187. Malcolm Miller, Baker, Yield 170.2, cost $.193. Richard Miller, Baker, Yield 129.28, cost $.26. Gurney Crews, Lake Butler, Yield 124.87, cost $.39.

Georgia — Ben Leath, Kensington, Yield 214.71, cost $.142. Ernest J. Wellburn, Madison, Yield 181.72, cost $.30. Bethel Edwards, Avalon, Yield 186.67, cost $.25. Byron Bolton, Zeigler, Yield 117, cost $.135.

Kentucky — Roy Steele, Crestwood, Yield 155.83, cost $.145. Edward G. Gallrein, Valley Station, Yield 144, cost $.14. W. Arthur Cook, Owensboro, Yield 131.5, cost $.12. Theodora Cummins, Butler, Yield 138, cost $.137.

Louisiana — John H. Henry, Jr., Melrose, Yield 150.75, Cost $.163. L. Z. Wardlaw, Red Oak, Yield 148.6, cost $.16. John M. Cobb, Vowells' Mills, Yield 131.5, cost $.15. Edward Grimes, Pride, Yield 127.7, cost $.17.

Maryland — Thomas Bonwill, Still Pond, Yield 118.4, cost $.20. J. Earl Smith, Chestertown, Yield 110.5, cost $.15. Walter Garner,

Waldorf, Yield 110, cost $.19. Hopper T. Goodwin, Longwoods, Yield 106.4, cost $.29.

Mississippi — Bennie Beeson, Monticello, Yield 227.62, cost $.14. J. Jones Polk, Prentiss, Yield 214, cost $.23. Carlous Reddock, Summerland, Yield 206.6, cost $.136. Carl Graves, Soso, Yield 202, cost $.145.

North Carolina — Charles Parker, Woodlands, Yield 195.9, cost $.24. J. R. Cameron, Kinston, Yield 190.4, cost $.34. Geo. West, Kinston, Yield 184.7, cost $.192. Richard Brock, Princeton, Yield 188 cost $.32.

Oklahoma — Orion Stutesville, Alfalfa, Yield 122.33, cost $.30. Elson Coleman, Newkirk, Yield 110, cost $.19. Earl Ross, Edmond, Yield 105, cost $.218. Harmon Smith, Hastings, 100 bushels to acre at cost of $.248.

South Carolina — Jerry Moore, Winona, Yield 228.7, cost $.33. Earnest M. Joye, Venters, Yield 207.2, cost $.40. John Fleming, Mt. Pleasant, Yield 171, cost $.25. Gary McKenzie, Hamer, Yield 164.6, cost $.09.

Tennesseee. — Norman Smith, Covington, Yield 168.2, cost $.21. Howard Riggins, Clarkesville, Yield 161, cost $.138. Clarence Nave, Elizabethton, Yield 163.7, cost $.25. Vincent Hamilton, Fall Branch, Yield 134.4, cost $.30.

Texas — John Hubert Rose, Henderson, Yield 164, cost $.094. Roy Day, Slocum, Yield 136.5, cost $.106. Bohumil Zatopek, Sugarland, Yield 148, cost $.12. Earl Davis, Grapeland, Yield 112.5, cost $.09.

Virginia — Marius Malmgren, Hickory, Yield 209, cost $.11. Frank G. Brockman, Amherst, Yield 167, cost $.225. Leroy L. Sawyer, Norfolk, Yield 166.5, cost $.28. K. D. Secriot, Buchanan, Yield, 165.5, cost $.24.

West Virginia — Oscar Francis, Smithfield, Yield 133.35, cost $.22. Roy Kerns, Glenwood, Yield 133, cost $.11. Walter Matthews, Roanoke, Yield 133, cost $.17. Hazel Ayers, Smithfield, Yield 130, cost $.32.

Volumes of records and reports have been made by Corn Club Boys, but only one will be incorporated here. It is typical of the others in many respects, but, of course, is one

of the very best. This is the record of Walker Lee Dunson, of Alabama:

"Walker Lee Dunson, Alexander City, Ala. Yield 232 bushels, 39 pounds. $.19 cents.

Lived on farm all his life and was 14 years of age when he made this record. Land is a bottom with sandy loam soil 3 to 6 feet deep. First cut corn stalks with a stalk cutter and turned land with a turner, breaking 10 to 12 inches deep. Double cut it with a disc harrow. Land was pulverized good and in fine condition. Laid off rows 3 feet apart and bedded up the rows with a turn plow. Seventh of April planted corn about 8 inches in drill. The corn came up to a perfect stand. First cultivation was May 12th, and applied 400 pounds of 10-4 guano as a side application. Second cultivation on May 24th, applied 800 pounds 10-4-3 guano. Third cultivation June 5th, used 800 pounds 10-4 guano. Fourth cultivation applied 200 pounds top dressing. Fifth cultivation July 5th, applied 100 pounds of nitrate of soda. Harvested it October 1st. Corn produced one to four ears to stalk. The variety was Marlboro prolific. When corn was planted used 200 pounds 10-4 guano.

He had been in the Corn Club three years. In 1911, his first year, he made 75 bushels. In 1912 he produced 172 bushels and 12 pounds and in 1913, 232 bushels and 39 pounds. Second year he won a trip to the National Corn Exposition School at Columbia, S. C. In 1912 he won a trip to Washington and several other prizes, among which was a fine percheron mare from the Central of Georgia, R. R. In this length of time he had much experience in farming. He says: 'Every boy ought to try an acre to experiment on. It will teach him how to farm and do better work."

A summary of the cost of production, etc., of his 1913 crop is as follows:

Fertilizer	$26.70
Labor	19.70
Total	$46.40

This is a little less than 20 cents per bushel. His profit was $186.10.

In 1914, Walker's fourth year in Club Work, he made 175.25

bushels of corn on his acre at a cost of 20 cents per bushel, 1,623 pounds of seed cotton on his second acre, and 3,354 pounds of oats in sheaf and 1,974 pounds of peavine hay on his third acre, winning a second percheron mare from Central of Georgia R. R., for four crops on three acres. Thus this young farmer won a fine pair of draft mares to continue his high-class demonstration farming. He has recently married Miss Margaret Brown, one of the North Carolina prize winning girls, whom he met on the trip to Washington in 1913. They are developing a model farm and home.

From 1906 to 1908 the enrollment in the Corn Clubs began to show up in several of the states. Some agents interested the boys and started them to work. Some county superintendents of education helped enlist the boys and aided in the instruction of the groups. The first county superintendent of education who thus organized Corn Clubs was W. H. Smith, of Holmes County, Mississippi, later president of the Agricultural College of that state. He was appointed Collaborator by the United States Department of Agriculture. The first Demonstration Agent to take up this phase of work and promote it actively and successfully himself was Tom M. Marks, of Jack County, Texas; 1909 was the first year in which the Corn Club Work was organized and promoted generally throughout the Southern States. It is very interesting to see the number of boys who produced yields of more than 100 bushels to the acre in the first five years of this intensive activity in the Boys' Club Work. This record is as follows: 1909, 52; 1910, 171; 1911, 327; 1912, 493, and 1913, 374.

A Department Circular giving results of the Corn Club Work in 1911 made the following observations:

"The Boys' Demonstration Work teaches the boy how to make a crop successfully and economically; hence, there is an element of economic management and profit in it. It inspires a love of the soil and, above all, when the boy is successful there is a consciousness of achievement, which is of great value. It is not merely a Boys'

Club for the purpose of having a set of rules or an organization. True, this idea is used, but mainly in an incidental way. This work is not a contest in corn growing wherein each one who enters is left to prepare, plant, fertilize and cultivate in his own way. Of course, prizes are offered in this work, but only for the purpose of arousing interest and keeping up enthusiam. The plan is to instruct, to direct, to guide and to train. The circulars of instruction sent at different times throughout the year cover the fundamental principles of good farming, such as deep fall plowing, the pulverization of the soil, seed selection, suitable spacing, intensive cultivation, the increase of humus, the economical use of fertilizers, the systematic rotation of crops, the use of more horse power and better implements, and the keeping of farm accounts. The effort is made to have each boy receive attention and instruction on his acre or the acre of a neighboring boy. A boy takes pride in ownership and will learn more agriculture and more business on his own acre of corn than elsewhere."

Soon after the boys began to enroll in large numbers in this new form of Corn Club Work it became necessary to have badges, pennants, banners and other regalia upon which some uniform insignia should be used. Agricultural colleges and high schools began to round the boys up in short courses and encampments at fairs and elsewhere. One of the occasions which Dr. Knapp enjoyed most, in the closing years of his life, was the attendance of 1,500 Corn Club boys in overalls, and with cornstalks as walking sticks at the Texas State Fair at Dallas. He regarded it as one of the greatest honors that had come to him to be able to address such an assemblage.

Dr. Knapp made many valuable suggestions with regard to the insignia to be used by the Club members. It was his suggestion, too, that the boys enter into competitions by groups and by counties rather than altogether as individuals. Inasmuch as prizes were offered and awards made in many instances for best records as clubs, there was much interest aroused in club activities and county records. The first prize

trip to Washington was offered by Dr. Knapp personally to the Club Boys in Mississippi when he was on a visit there. It was the beginning of many interesting prize trips to the Nation's Capitol, to fairs, live stock shows, to colleges and other places.

By the time the Boys' Demonstration Work had been well established in the fifteen Southern States, public-spirited citizens were giving more than $50,000 worth of prizes a year to the boys. These awards took the form of cash, pigs, plows, colts, calves, shotguns, books, bicycles, implements, hats, clothing, trips and scholarships. Senator R. L. Owen, of Oklahoma, offered a thousand dollars and asked how best to distribute it. Dr. Knapp advised that he give it to teams from the clubs who would make the best average records. Thus these club members strove to bring honor upon their counties. As the work developed the boys attached more and more importance to the recognition and honor involved in the awards. Blue ribbons, certificates and diplomas were cherished as highly as awards of money.

It was a matter of great personal pride to the founder of the Demonstration Work that the prize winners in the Corn Clubs elected to take scholarships in the agricultural colleges, when such prizes were offered them. It was a matter of great gratification to him, also, that the agents who were appointed in the different states to give special attention to the Boys' Club Work became the connecting link between the Department and the agricultural colleges in their extension work. The memoranda which he drew in perfecting the agreements with the colleges whereby such agents should become agents of the Department and representatives of the colleges really forecast the provisions of the Lever Extension Act. It was very fitting that the man who was the founder of the

Demonstration Work and most largely influential in establishing a policy of co-operative extension work by an enactment of Congress should have also been prominent and influential in the passage of the Hatch Act, providing for experiment stations. No man realized more fully than he did that the research and experiment station work by the Department and colleges were inadequate and incomplete until a proper form of extension activity could be worked out.

Hundreds of Corn Club Boys have graduated from the agricultural colleges and thousands of them are now active and successful farmers. In the communities where they live it is far easier to promote organization of farmers, and the co-operation of the people along marketing lines than was true at the time the first Corn Clubs were organized.

W. W. Finley, former President of the Southern Railroad, paid the following tribute to Dr. Knapp's participation in the Corn Club Work, in an address to the State Teachers' Association of South Carolina, in June, 1912:

"Splendid as have been the results of Dr. Knapp's cooperative farm demonstration work, I believe that by far the most important thing he ever undertook was the inauguration of the Boys' Corn Club Work. The immediate and primary effect of this work is seen not only in the records of the large yields made by individual members of the Boys' Corn Clubs throughout the South, but in the increasing average yield per acre in all of the states resulting from the stimulation of interest in the best cultural methods and in seed selection. If the Boys' Corn Clubs had done nothing more, their records would stand as an imperishable monument to the memory of Dr. Knapp. But in my opinion the most important results are not in the raising of corn, but in the raising of farmers. They are essentially agricultural schools. The boy who hopes to make a creditable showing or a record-breaking crop and to do so by methods that will yield a profitable margin over the cost of production must be a student. The members of the Boys' Corn Club not only acquire theoretical and practical knowledge as to the best

Pig club member and the house he built for his pig

Club members and county agent judging a lamb

methods of growing corn, but I believe that their work in these clubs tends to imbue them with a thirst for knowledge and that they will grow up into scientific and progressive farmers, whose work will lift the standard of agriculture throughout our entire section.'

Correspondence with educational leaders shows that Dr. Knapp fully realized that the Corn Clubs would lead to Pig Clubs, Calf Clubs, Potato Clubs and other clubs. He rejoiced in the evolution of the club, which indicated that the members were developing into broad, scientific and practical farmers and business men. He then said: "This learning agriculture, which is composed of the following ingredients—one-eighth science, three-eighths art and one-half business methods out of a book—is like reading up on the handsaw and jack plane and hiring out for a carpenter." He took genuine pleasure in seeing these boys learn real agriculture as he had conceived it and also by the methods which he urged.

All phases of Club Work can furnish stories of achievement by the youngsters. The various live stock clubs are all getting splendid results. Perhaps a good Pig Club record will suggest what can be done with calves, lambs and other animals. The story told by Amos Roy, of Yukon, Okla., is a good one. He says:

"I bought my gilt of my father on December 7, 1916, the day she was bred put her in an alfalfa pasture alone, so no other hogs would hurt her or eat her feed. Her weight when I bought her was 290 pounds.

She farrowed eleven living pigs and one dead one. I was successful in making her raise the eleven pigs and after showing them at the fairs, I sold ten of them at six months of age for $505.80 and one at one year, bred, for $100.00, making $605.80 besides $205.50 in prize money won at the fairs, making a total of $811.30 and I had the old sow left with another litter of pigs.

The total amount of feed eaten by my gilt from breeding to farrowing was: Corn 432 pounds, bran 125 ponds, shorts 125 pounds, tankage 62½ pounds. Her gain was 175 pounds and cost

4 1-9 pounds of feed for each pound of gain in weight. She gained in weight 1½ pounds per day.

The total amount of feed eaten by the sow and pigs during the 120 day contest was: Corn 2,724 pounds, shorts 456 pounds, bran 432 pounds, tankage 235 pounds.

The net gain on sow and pigs was 1,100 pounds and cost 3½ pounds of feed per pound of gain. They gained over 9 pounds per day. The total cost for feed and care from breeding of gilt to end of the 120-day contest was $129.83. Adding the cost of food after the contest and fair expenses which were $231.47, making a total cost of $361.30 spent on the pigs. Total income $811.30, leaving a net profit of $450.00.

The sow is now worth much more than I paid for her so I do not deduct anything for her purchase price.

Amos Roy."

When Woodrow Wilson was inaugurated Governor of New Jersey the Farm Demonstration Work was well established in every Southern State, the boys were attracting national attention in corn production and the girls were making a splendid start in their clubs which were opening the way for the home demonstrations. This movement was not lost on the far-seeing new governor. He noted that "The work grew in every direction." He addressed the New Jersey legislature in part as follows:

"The thing that tells is demonstration work. The knowledge of the schools should be carried out to the farms themselves. Dr. Seaman A. Knapp found the way when he was sent into the South to fight the boll weevil. Choosing a good farm and a good farmer here and there he showed the farmer how to cultivate part of a field, gave him simple, fundamental directions, brought him selected seed, and made frequent visits afterwards to see that his directions were carried out. Of course the neighbors promptly took notice and the next season did the same thing, — with the same results, good crops, earlier crops, crops that the weevil was no match for. And fighting the weevil was only an incident. The work grew in every direction, — not work in the schools, but work suggested and directed by men

good farming which will inspire his community and forecast his manhood possibilities for farming on a large scale.

The club members who have grown their acres of corn and secured their live stock should immediately take up the question of how best to use the acre of land which has been in corn and also how to feed their live stock most economically. They should practice soil building and animal feeding. Whatever animals a boy may own, some good grazing will have to be provided. The boys who are growing pigs would make a great mistake if they were to pen up the pigs and feed away the corn to them. It would not be a balanced ration for the pigs and the meat would cost more than it could be sold for. The acres which have been in corn should be seeded to small grain or legumes. In some sections it will be better to sow the acre to a cover crop for grazing and to be turned under in the spring. Following this treatment, prize acres of cowpeas, soy beans or peanuts might be grown. In other sections it will be advisable to seed together such crops as wheat and red clover, rye and crimson clover, rye and bur clover, or vetch and oats. Hundreds of boys in some of the States have already made fine demonstrations along these lines. They have taken more pains with the inoculation than the average adult farmer does. The result is that they have taught the important lesson of soil inoculation in their communities. Perhaps it would be a good idea for a boy to put one-fourth of his acre in clover or vetch and the remainder in rye, oats, barley, or wheat. If he decides to plant clover, only a small area should be undertaken until inoculation is secured. Inasmuch as he is manipulating this acre for the sake of feeding his live stock and of improving the soil, he might further subdivide it and put one-fourth of an acre in rape or some other crop to be used exclusively for grazing purposes. In

counties where potato clubs are undertaken, one-eighth of the acre can well be devoted to potatoes. Summer legumes and annual grasses for pasture, hay and humus will be in order for the remainder of the acre or the whole acre after the winter crops are taken off. When this acre is put into corn again in the rotation, the boy will have a fine opportunity to observe the effects of the different crops on the improvement of the soil. Under this plan boys who make large yields will doubtless be able to repeat on the same acre. It should be a matter for serious thought that the boys who have produced the large yields have not been able to "come back," when they use the same land the second year. By following even a simple two-year rotation, combined with live stock feeding, the boys will continue to get large yields at low costs. By seed selection and breeding they will improve quality and increase economical yields in small grains and legumes just as they have with corn. They will develop the best.

There are several thousand boys who are members of the pig clubs. Under the stimulation and encouragement of public-spirited business men, some of these boys have started into the hog business without having grown any crops to feed the pigs. Every one of these boys should promptly select his acre and begin with the small-grain and legume crops. He should have some grazing for his pigs just as soon as possible. He has really entered the farm club work without passing through the first grade. He may, however, join in at this stage of advancement, for he will get an opportunity to do the corn club work when that activity is taken up again. By growing his pig and his feed crops the land is prepared for good work with corn during the second year of his club membership.

The smaller boys, during the first two years of their mem-

bership in the clubs, will have enough to do to handle one acre at a time and care for their live stock. It will be better for these boys to exchange small grain, hay, cowpeas, beans, clover seed, or some of their other crops for enough corn to feed their live stock than to overcrop themselves by farming two or three acres just for a limited amount of corn. Some of them might grow just enough corn for feeding purposes, but the average boy, by helping his father with the larger crop of the farm, can get feed corn for one year in exchange for his labor and help. It will be good training for the boys to use their intelligence and resourcefulness along this line. It is more important to demonstrate profitable soil building and animal feeding than it is to try to make large yields of corn every year, especially as the corn demonstrations in the rotations will be so much more effective. The older and more advanced boys might farm two acres at a time. One acre will be in corn while the other is in small grain and legumes. Of course, the crops on these acres will alternate. In this way a boy might compete for corn club prizes every year, but it is recommended that prizes be offered also for the live stock, for the legumes, and for the small grain. If the club member uses his small-grain crop for grazing and for turning under, he can compete for prizes on the legume crops and vice versa. There are hundreds of communities, where prizes on these crops will do a vast amount of good. Club members have a good opportunity to demonstrate the best methods of harvesting seed from such crops. They can make a fine profit on these enterprises. Prizes might be offered for yields of seed and also for hay.

In semi-arid sections this program will have to be still further modified and adapted to climatic conditions. Corn, if planted at all, may be alternated with peas or soy beans.

The small-grain crops may be emphasized to good advantage. Club members in such sections can do some fine demonstration work with kafir, milo, and other corn substitutes, and in live stock feeding.

Toward the close of the second year, in most sections, preparation should be made to plant the acre to corn again. A club member who has followed this plan for two years will know a great deal more about corn production and farming in general than he did when he was a freshman in the work. He will doubtless be able to make an excellent yield at a low cost of production and the quality of his corn should be greatly improved. He will be better able to write a history of his crop which will reveal his knowledge of the whole plan of work which he has been following for three years. At the close of the third year he may repeat his rotation if he expects to remain in the club, but most of the boys will be going away to high school or college after they have done three years' work. It is recommended, therefore, that the boy prepare his acre thoroughly and seed it to perennial clovers and grasses or alfalfa. Such a course carefully followed and such a demonstration thoroughly done will make the club member a benefactor in his community even after he has left home to better prepare himself for further service to his fellows.

He has well merited a certificate of recognition, honor and distinction from the highest officials of the college and state. He is entitled to full membership in the "All Star Club."

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Secy. Houston awarding diplomas to prize winning club members

Six 1913 prize winners in Washington

These half-grown boys and girls could make a garden and raise the fruit and poultry to support the family if they would. It might brown their skins and soil their hands, but it would help them to do something and to know something. It would aid the family pocketbook and help the family character. There is no sufficient reason why every American family should not own a good home and have a snug sum laid by for a rainy day, except our laziness, our lack of thrift or possible sickness, and nine-tenths of all sickness is due to malnutrition, which is another name for ignorance."

All the women agents who attended the first conference of State workers in the United States Department of Agriculture will recall the definite, specific instruction and the line of approach to the home. Dr. Knapp told these agents not to go to the farmer's house and tell him they had come to teach his wife to cook. He said the man would knock them down, and that he would be justified in doing it, out of respect to his wife whether she was a good cook or not. This line of reasoning caused him to prefer to approach the home through the activities of the girls in the clubs. He suggested canning and poultry clubs. He said that if the girls began with the study of one plant in the garden, that they would soon learn how to utilize other vegetables and fruits. He realized from the beginning, also, that they would be making most interesting demonstrations in farm animals and their management. That is why he said that after the girls had had some experience as members of the Canning Clubs, many of them would want to take up poultry as their advanced course. He suggested that the gardening and canning activities would constitute the freshman and sophomore years in the club life, while animal husbandry would be engrossing them mainly in the junior and senior years.

Before the Girls' Club Work was established the General Education Board had been financing the Farm Demonstration

Work in all Southern States east of the boll weevil advance. The appropriations by Congress to the Department of Agriculture were for the purpose of fighting the boll weevil, consequently, the Board at that time was paying the expenses of the work from the State of Mississippi east. The agents were selected by Dr. Knapp, acting for the Department of Agriculture, the Board paid the salaries and traveling expenses of these agents on vouchers prepared in Dr. Knapp's office.

Because of the limitations of the Congressional appropriation and the necessary restrictions of Departmental regulations, the funds from the General Education Board were most helpful. The members of the Board had the greatest confidence in Dr. Knapp's probity and judgment. They supported him in the widest latitude of initiative and enterprise. In the matter of travel expenses alone they were willing to have frequent meetings of agents for instruction and inspiration. They were glad to have state and district agents sent to different parts of the country to see good farming and splendid live stock. Dr. Knapp even sent his leading agents to Canada to observe methods of work there. It was the fixed policy in the administration of the work, also, to have representatives present at all important educational conventions and conferences. He paid, from Board funds, most of the expenses of the Boys' Club work in co-operation with the colleges. He matched these funds with thousands of dollars from boards of education, chambers of commerce, bankers, county commissioners, county courts and others in the promotion of the work for men and boys, but the funds of the General Education Board were peculiarly helpful, and effective in the inauguration of the Girls' Clubs and the Home Demonstration Work. When Dr. Knapp went to the Secretary of Agriculture with the request for the appointment of

the first woman agent, he was told that no woman had ever been appointed by the Department of Agriculture for field work. The Secretary was doubtful whether the appropriations made by Congress could be used in this way, although he was anxious to help the girls and also to encourage Dr. Knapp in the expansion of the work which he had in hand. The Board had the faith and confidence to underwrite the work in its pioneer stages and to promote its development. Its money was used freely in getting equipment and supplies. The revolution in the manufacture of canning outfits, sealers, fireless cookers and such articles was brought about because the early demonstrations showed the necessity for better appliances and more practical conveniences for work in the home. No other factor has had such a far-reaching influence upon the mechanical and physical equipment and improvement of the country home; likewise, more liberal salaries for women agents were made possible. Thus it was that the finances of these philanthropists were used until the demonstrations attracted national attention. Then Congress assumed the responsibility. Provision was gradually made in larger allowances and broader authority was given in annual appropriation bills. Afterward it was written into the permanent law of the land by Congressman Lever, who had been a constant friend and student of the Demonstration Work. The fact that home economics has a place in the Extension Act alongside of agriculture is directly traceable to the work done by the women agents who began with canning clubs.

That the General Education Board was satisfied with its investment is evidenced by the fact that they responded with increases just as rapidly as Dr. Knapp thought he could use the money wisely. A letter from Dr. Wallace Buttrick shows

the esteem in which these co-workers held the man who used their money for the benefit of humanity. Dr. Buttrick said:

"The public at large ought to know how great a service Dr. Knapp rendered his day and generation. He was one of the greatest teachers I ever knew and one of the greatest souls I ever loved."

Dr. Knapp expressed the belief that through intensive activity and organization, the boys would be able to attract national attention in five years in their line of demonstration work. He said, however, that before this time was half gone that the demand for Girls' Clubs would be very strong and that the agents must be ready for it.

The first club was organized in Aiken County, South Carolina, by Miss Marie Cromer, in the early part of 1910. Miss Cromer was a country school teacher and was also the Aiken County representative of the School Improvement Association at their annual session in December, 1909, where a representative of the Department of Agriculture discussed the development of the Boys' Club Work, and gave tentative suggestions for the beginning of the Girls' Clubs. Miss Cromer secured an enrolment of 47 club members in different parts of the county by spring. She met with quite a bit of apathy, indifference and some opposition, but she aroused the girls and got them started, even though she had to write letters after her day's work was done in the schoolroom. Later in that same year some work was undertaken in two or three counties in Virginia, with Miss Ella G. Agnew in charge. Altogether there were about 300 girls enrolled in 1910.

The work of Miss Cromer and her girls in Aiken County soon attracted much attention and favorable comment. Miss Cromer was appointed a special agent by the United States Department of Agriculture in the latter part of the summer of 1910. A prominent woman invited her to spend the sum-

mer in New England where she was given good opportunities to visit institutions giving instruction along domestic science lines. Dr. Knapp sent a representative of the Department of Agriculture to Aiken County to help the girls in the canning of their tomatoes. There was cordial co-operation on the part of the county superintendent of education, the business men and the state college responsible for such lines of work. Winthrop College, Rock Hill, South Carolina, furnished a special instructor to give timely aid to these girls. The following quotations bearing upon the beginning of this work are taken from a special report made to Dr. Knapp on July 28, 1910, by the representative of the Department of Agriculture, who helped in the inauguration of the work there:

"As soon as the names of the members of the clubs, with their addresses, were sent in, special letters and leaflets were sent to them. A selection of Farmers' Bulletins bearing upon their work was also sent. Each girl had been instructed to plant 1-10 of an acre in tomatoes."

"The officials reported that the girls take a great deal of pride and interest in their plants. They also found that the circulars were carefully studied. A great deal was being learned about the soil and plants, by growing and studying one plant. It was also their observation that they could make many valuable suggestions with regard to sanitation, hygiene and general home improvement after having secured the confidence and good will of the girls and their mothers through the club."

"Encouraged by the interest taken and the ability shown by the various members of the club, as well as by the boys and parents, also, it was decided to leave the canning outfit in the county and have it moved from place to place. It was suggested that the girls have 'Canning Parties.' The outfit was left in a community where there were 11 girls who have tomatoes ripening from time to time. One girl is to invite the other girls to come and bring their tomatoes to her home and spend the day. Two of the mothers in that community manifested unusual interest and have been present every day. They will be chaperons at the canning parties. There are also two or

three boys in the same community who will be first-class assistants. They bring in wood and water, keep up the fires, and do the capping and tipping. As soon as the work is fairly well finished there, the outfit will be moved to another place 10 miles away, which is the center of another group of members of the club."

"It is more than probable that the Tomato Club will increase in numbers and influence in Aiken County next year. It seems to be a good plan to specialize on one vegetable and make a thorough study and demonstration of it. It seems to appeal to the individual and to the popular mind more forcibly than if the girls were to adopt the name of Garden Club or Domestic Science Club. As a matter of fact, however, the work naturally leads to experiments and demonstrations with other plants and also to various phases of kitchen and household activity and economy but still there is an advantage in singling out one plant and vegetable."

"It can be readily seen that when this work develops it will have a far-reaching effect. It will affect the homes in an economic way because the girls can convert some of their spare time into profit. It will encourage thrift. It will also lead to various lines of home improvement. The well trained and enthusiastic young woman working in a county, can bring about wonderful changes in a year. It will have a fine educational value and a beneficial reflex influence on the schools."

In the light of the hundreds and thousands of meetings of Girls' Clubs for instruction, for entertainment and profit held during the past ten years, it will be of interest to incorporate here a newspaper description of one of the first "Canning Parties" held by the Aiken County Clubs in August, 1910.

"TOMATO GIRLS"

Bunch of Aiken County Beauties Gather and 'Put up' Many Cans of Tomatoes.

White Pond. Aug. 14. — One of the most successful and enjoyable meetings of the Aiken County Tomato Club girls was at the home of Mr. and Mrs. S. N. Hankinson last Thursday. There were ten of the 'tomato girls' there with baskets and tubs of the loveliest tomatoes, besides a crowd of spectators from far and near too

numerous to mention. The canning was carried on most successfully under the instructions and aid of Miss Margaret Harley, and Mrs. S. N. Hankinson. By twelve o'clock 190 cans were filled and capped ready for exhausting. All capped by Mr. Clemins Hankinson. Then dozens of delicious water-melons were served. Shortly after, dinner was spread out under the shade, every family having brought baskets of good things. By three o'clock all the tomatoes were tipped, cooked and labeled. The rest of the afternoon was greatly enjoyed by the young folks, who declared the tomato club was most enjoyable as well as profitable.

From *Greenvile Daily News,*
Greenville, South Carolina,
August 16, 1910."

The Miss Harley spoken of was the country school teacher in the community where the home of Mr. and Mrs. Hankinson was located. Mr. Clemins Hankinson was the 15-year-old son and brother who was ready to help. The people who assisted in making this little "Canning Party" successful were prototypes of thousands of others who had similar intelligence and enterprise during the succeeding decade.

When Miss Cromer came to Washington en route to New England and had conference with Dr. Knapp and other representatives of his office with regard to the work she had in hand, everybody was impressed with the fact that her new club was a confirmation of what Dr. Knapp had planned and prophesied three years before. When the writer learned about the enthusiasm with which the girls were doing their garden work, and the zeal which they manifested in their club organization, he realized the inspiration and power of such activities. Miss Cromer told about the girls whose health had been greatly improved by their outdoor work. She told about others who had been pale and anemic, but who were now strong and rosy. She told about some who were doing better in school since they had become members of the club.

There was so much encouragement and exhilaration in the recital of such achievement that one naturally felt an impulse to go up higher. Accentuated by such feelings the suggestion was made that the party go to the top of Washington Monument. The suggestion was adopted. As the elevator climbed up in this great shaft, which is 555 feet and eight inches above the placid waters of the Potomac below, the writer recalled the motto printed on the aluminum apex of this great obelisk. On this apex are two Latin words, as follows: "Laus Deo," which mean "Praise to God." Even then as the vision was enlarged and the horizon extended across the Maryland and Virginia hills, it was realized that here was a line of approach and a method of work which would aid thousands of girls and their mothers and thus brighten as many homes from the Atlantic to the Pacific. Here indeed was a work, which would praise God by helping humanity. It was really a new education. It made one remember a quotation from Dr. Hodge, as follows: "Learning those things in nature that are best worth knowing to the end of doing those things which make life most worth living."

The appointment of women county agents and the organization of Girls' Clubs went forward apace. In 1911 State Agents were appointed in more than half of the Southern States. In 1912 the rest of the states came in. All began appointing home demonstration agents and enrolling the girls as rapidly as the work could be cared for. The following paragraph is taken from a report at the close of 1913:

"In the Canning Clubs of the Southern States, there were 20,060 girls enrolled in 1913. The 4,202 girls who sent in reports put up 1,032,115 cans of tomatoes and 522,147 cans of other products worth $180,420.05. Ten Mississippi girls made a profit of $868.66 from ten tenth acre gardens at an average cost of $29.93. The best county record is that of Etowah County, Alabama, where 104 girls

Clyde Sullivan of Georgia with her diploma

put up more than 30,000 No. 3 cans of tomatoes worth $3,600. Clyde Sullivan of Ousley, Georgia, had best yield reported in 1913. She produced 5,354 pounds of tomatoes from one-tenth acre, canned 2,254 No. 2's, 212 No. 3's, at a profit of $132.39. Margaret and May Belle Brown, of Mecklenburg County, North Carolina, on two tenth acres produced and sold vegetables to the value of $243.86, at a profit of $214.12."

It is very interesting, also, to note that the agents soon grasped the simplicity and significance of the work. They realized its philosophy and power as will be seen from the following quotation taken from the weekly field report of a Virginia county agent at that time:

"After all, this Canning Club Work means that we are to get a girl to do something worth while; have it approved by those she loves, and then lead on to greater things."

This definition gives the law and the prophets in Demonstration Work for girls and boys. It shows the influence and power of the opinion of those we consider worth while. This definition also contains a promise of larger things as the work unfolds and develops. The very next annual report showed some of the promised expansion and evolution both as to the amount and variety of activity. The following is quoted from the 1914 report of the Canning Clubs:

"The enrolment for 1914 was 33,173. Of these club members 7,793 put up 6,091,237 pounds of tomatoes and other vegetables from their tenth acre gardens. These products were put into 1,918,024 cans, jars and other containers. They are estimated to be worth $284,880.81 and nearly $200,000.00 of this is profit. The average profit per member was $23.30. Furthermore, these girls put up thousands of dollars worth of other products from the farm and orchard.

In many counties the results of the work from an economic, as well as an educational point of view are large enough to attract attention. Ninety girls in Alamance County, North Carolina, put up 55,165 cans and jars, valued at $7,039.65 from their tenth acre gardens; 136 girls in Etowah County, Alabama, put up 46,533 con-

tainers worth $5,970.17. In Hamilton County, Tennessee, 102 girls put up $14,240.00 worth of fruits and vegetables but, of course, this represents the surplus of the farms and orchards as well as their own little gardens. In Barnwell County, South Carolina, the Girls' Club grew and sold more than $2,000.00 worth of pimiento peppers, and the club of Polk County, Florida, put up and sold about $7,000.00 worth of guava products.

Special work has been done with peaches, berries, figs, scuppernongs, mayhaws, agritos, oranges, cumquats and many other fruits of the South. Nearly 3,000 girls now belong to Poultry Clubs. Many of the best trained club members are succeeding with winter gardens. In all of these activities, the women on the farms have given active help. Fiscal officers, school officers and teachers have cooperated in many ways.

The individual records of thousands of the club members were excellent in 1914. Hester Sartain, of Walker County, Alabama, grew 7,037 pounds of tomatoes. She put up 1,620 cans, jars and bottles and the entire output, at market prices, was valued at $221.35, of which $146.20 was profit. Cora Brown, of Polk County, Georgia, produced 5,290 pounds and made a profit of $144.61 Lois Robertson, of Comanche County, Texas, realized a profit of $193.00, counting 4,868 pounds of tomatoes grown in her garden and the fruit she put up from the farm and orchard. Many other records were almost as good."

It was observed in the report of that year that many club girls were following a systematic course of work by taking two vegetables the second year, three in the third, and so on, and that they also showed a disposition to plant perennial vegetables and fruits. The agents encouraged this tendency because they realized that such permanent gardens would serve as memorials to club members who had gone off to high school or college. It was realized, also, that such gardens would serve as magnets to draw the girls back to the farmsteads. It was noted that these older girls still had a pride in the possession of things which they could call their own. They had not lost any of their desire to earn something. It

was fortunate that the development had made progress before the war came on. It made for increased efficiency and production in thousands of homes. A West Virginia farmer recently remarked that the Extension Act, and the Federal Reserve Act were mainly responsible for the winning of the war, because one provided for finance and the other for food.

Let one of the Canning Club Girls tell her own story of her four years' work, for she tells what multitudes of others would tell with slight modifications here and there. This is the history of the career of Jessie Woddell, of Arkansas, in the Canning Club:

"In 1915 at the age of 13 years, I joined the Girl's Canning Club under the supervision of Mrs. Sarah J. Trussell, Home Demonstration Agent for Garland County.

I have been a member ever since. The first year, not knowing very much about the cultivation of tomatoes, I only gathered 2,400 lbs. of tomatoes from my own tenth acre. I sold most of them fresh, only canned for home use. I took an exhibit of my canned products to the county contest for Boys' and Girls' Clubs and won a pair of dial scales which, though a small prize was nevertheless appreciated.

The second year I gathered 3,240 pounds of tomatoes from my tenth acre. I canned 200 No. 3 cans for the market and sold the remainder fresh, making a net profit of $46.36. I took an exhibit of my canned products to the county contest again and won a rocking chair for a prize.

The third year being an ideal year for tomatoes, I gathered 4,276 lbs. canned 720 No. 3 cans for the market for which I received $2.49 per dozen, and sold the remainder fresh, making a profit of $151.85. I took some of my canned products to the county fair and won a cash prize of $25.00.

The fourth year, 1918, being a very dry year my yield was only 3,500 lbs. I canned 100 No. 3 tin cans for market, for which I received $3.00 per dozen and sold the remainder fresh. I received as much as 12½ cents per pound for fresh tomatoes. I made a net profit of $211.20. I sent an exhibit of my work to the Arkansas State Fair at Jonesboro, and have been informed that I won first prize for

Canning Club Work in the state, which is a scholarship, in one of the agricultural schools, given by the State Bankers' Association.

This is the prize I have always coveted and have been saving some of my money each year to help me through high school when I had finished the common school.

Being a club girl has been a pleasure to me as well as educational and profitable. I have learned things in my Club Work that will be profitable to me all through life. This being the last year for me in the Club Work, I am going to try and make it my best one."

Dr. Knapp rejoiced in the prospect of the full fruition long before other observers saw the possibilities of these new phases of this work. This was because he was the Nation's seer and prophet in the agricultural civilization of the new day. This is the reason that a prominent thinker said that "Dr. Knapp was the one great agricultural statesman which this country has thus far produced." He died in the spring of 1911, but he had his organization formed and his workers inspired. His son, Mr. Bradford Knapp, who had been his assistant for two years, succeeded him and the work developed and prospered greatly during his term of office.

In 1906 and 1907 Dr. Knapp's speeches and writings were replete with such eloquent passages as the following:

"But to-day I am not viewing this campaign for increased production in the country from the national standpoint. I am thinking of the people, of rose-covered cottages in the country, of the strong, glad father and his contented, cheerful wife, of the whistling boy and the dancing girl, with schoolbooks under their arms, so that knowledge may soak into them as they go. I am thinking of the orchards and the vineyards, of the flocks and herds, of the waving woodlands, of the hills carpeted with luxuriant verdure, of the valleys inviting to the golden harvest. What can bring these transformations to the South — greater earning capacity of the people."

"Sixty years ago most of our mechanics lived in the country upon small farms, which they and their families tilled for support, and

they sold their surplus labor to supplement the home income. People were honest and thrifty, because all were employed; these mechanic farmers now reside in town or city, sell all their labor, and live out of a canned garden and milk a tin cow. Of course their sons and daughters are idle."

"No young woman is quite half educated who is not a post-graduate in household economy; especially in preparing the food needful for the farmer, in making and repairing the clothing, in the orderly arrangement of the household, in the laws of health and care of the sick, in the management of the domestic fowls and in the knowledge of trees and plants required for useful or ornamental purposes."

"The third advance in the great uplift of rural conditions consists in teaching farmers' wives and daughters how to feed, clothe and doctor their families."

"In the centuries the American people have been at work on the problems of rural reform some progress has been made, and we are now prepared for the complete accomplishment, of what we have so earnestly sought, the placing of rural life upon a plane of profit, of honor, and power. We must commence at the bottom and readjust the life of the common people."

Under war conditions the club girls not only did much emergency work, but their regular activities were speeded up. The following extract from a weekly field report of the Home Demonstration Agent of Alleghany County, Virginia, is a case in point:

"Alleghany County, Virginia, boasts of a 14-year old girl who won the loving cup offered for the greatest amount of patriotic work done during the war by boys and girls of the county. I am sure all will agree she deserved it when her story is read:

'With the help of my 12-year old brother, I cleared 12 acres of corn land, cut pines and brush, grubbed sassafras, piled and burned the brush and helped fence the field. I dropped fertilizer and corn and hoed it all over once—part of it twice. Worked my tenth acre in beans and tomatoes, and helped with the home garden, the house work and part of the time cooked for eight soldiers who were boarding with us. I canned 860 cans of vegetables and fruits, mostly in

tin, and went out in the neighborhood to help and teach those women to can and seal in tin, as they had never had the experience in tin before.' "

Nineteen hundred eighteen was the banner year in the food production lines to date, but the achievements were made possible by the training and experience of the previous years which constituted a wonderful bit of preparedness. A few facts and statistics of this notable year follow:

In the fifteen Southern States there were 9,026 Girls' Clubs organized by the Home Demonstration Agents. These Clubs had a total membership of 286,278. Of these members 77,264 cultivated 1/10-acre plots; others had 1/20 acre, and still others were in bread clubs and poultry clubs. Many of the girls have had to fill the place of some man of the family called to the army and have faithfully attended to the work of planting, cultivating and harvesting crops besides trying to keep up their own plots and can the crops raised there. This extra labor would have been almost impossible if it had not been for the training in the Canning Clubs. During the season a large amount of fresh vegetables was sold by the Club girls, as the demand by the war activities, shipyards and army camps, in many places, made excellent markets for their fresh products. Hence, the canning was not pushed to quite as great an extent as it otherwise would have been. Still the club girls put up 6,629,590 containers of vegetables for home use and for market, valued at $1,511,713.32 from their 1/10-acre plots. The girls also put up 65,734 containers of fruit from their 1/10-acre plots, valued at $18,926.25. From the farm and orchard, as well as wild fruits collected by the girls, they put up an additional 3,850,178 containers of vegetables and fruits, valued at $860,563.10; 54,128 cans of meats and fish were canned by the club girls, valued at $16,150.41.

A total of 42,751 containers of pimientos, 62,342 cans of Dixie relish and chutney, products made largely from the pimientos, were put up. The girls of South Carolina also learned how to store their pimientos fresh for winter use and large amounts are now sold direct to the consumers in their natural state. The club girls have not only been instructed in canning as a method of food conservation, but have also been taught drying of fruits and vegetables, and brining of vegetables. These instructions have resulted in the girls storing 2,043,181 pounds of dried fruits and vegetables, valued at $404,419.02, and 19,670 gallons of brined vegetables, valued at $4,682.00. The club girls are not only growing their 1/10-acre plots, but 19,925 of them have winter gardens and 7,113 have established perennial gardens. The perennial gardens generally contain some fruit trees, grape vines (especially of the best Muscadine varieties), or other small fruits selected according to climatic conditions, after advice of the agent. As a result of this work special products are made, either for home consumption or for market, and as fast as these gardens are established with their uniform system and selection of plants, considerable income can be expected for the girls. Of the special club products, 70,238 bottles of fruit juice and fruit sirups and 90,864 glasses of jellies, marmalades and fruit butters were put up in 1918. Some fruit pastes were also made. The excellent quality of the fruit paste made from the Muscadine grapes indicates that this paste will in a few years be a fair rival to the fruit pastes now imported from other countries.

Although the girls largely contributed, by means of knitting and sewing for the Red Cross, Belgian Relief Work, etc., they also followed the regular sewing courses taught by the Home Demonstration Agents in the Girls' Clubs. The result for 1918 being 39,175 caps and aprons, 7,711 dresses,

64,220 miscellaneous articles of sewing, including holders, towels, laundry bags, and sewing screens. Seven hundred and sixty-four short courses for club girls were held and were attended by 26,039 girls. As an encouragement to the girls, 2,157 scholarships have been awarded; of these, 1,427 were county, and 730 were state.

The agents have assisted the club members in marketing "4-H" Brand products of fruits and vegetables and very satisfactory results have been secured. The members of the Girls' Clubs had emphasized the symbolical expression of the development of the head, hand, heart and health by placing the "4-H's" on their insignia for uniforms, caps, aprons, badges and banners. The Boys' Clubs had adopted similar insignia. They took pride in using it on their labels to designate the brand and establish standards.

The working out of the 4-H badge, brand and insignia ran through several years in the early history of the club work. Changes were made in response to needs. As the numbers grew there was more demand for distinctive badges, banners, pennants and labels. It was thought to be a good idea for the boys and girls to use the same emblem as far as it was applicable to the different products made.

The first regular design for the Boys' Corn Club had a grain of corn in the center with the four clover leaves around it. The Girls' Club badge used a tomato in the background and a 4-H clover leaf upon it. Prior to that even, a label had been extensively used giving a picture of a girl with a basket of fine tomatoes. The boys had used various designs showing ears and stalks of corn on their badges, banners and ribbons. They had made extensive use of a button containing the word, "Demonstrator." The motto, "To Make the Best Better," was suggested by Miss Carrie Harrison, of the United

States Department of Agriculture. She is quite a friend of the Club Work and was the author of the recipe for B. S. Chutney, which so many girls made and used.

In 1911, a former county superintendent of education from Iowa, Mr. O. H. Benson, was brought into the Washington Office to help with the Club Work, which had been in existence for years, and was then developing very rapidly. He had already used a badge with his boys and girls in Iowa. It was a three-leaf clover. The idea of using a four-leaf clover and adding a new *H* was suggested by another assistant of Dr. Knapp's, who had been in charge of the Club Work since its organization in the Department of Agriculture. After the girls began to make exhibits of canned tomatoes and other high-class vegetables and fruit products at the fairs and put them on the market, a suggestion came in from Mrs. Jane S. McKimmon, State Agent of North Carolina, that there should be a special brand name for all of these products which should come up to standard requirements. She had realized this need when she took the matter up with some of the leading grocers in her state. The idea was passed on to various state agents with the request that suggestions for a brand name be sent into headquarters. Quite a number of suggestions were made, but none seemed to meet with general approval. It was at the Conference for Education in the South, in Richmond, Virginia, in 1913, that the idea of using the figure *4* in front of the *H* came to the author of this volume as the solution of the problem. It was during the course of a meeting while listening to an address. As soon as the meeting was over he called together the state agents who were present and said: "I have it." When the suggestion was submitted to the agents it met with unanimous approval. It soon appeared on an artistic tomato label which was used all over the country. From that

it was extended to other labels, not only in the Girls' Work, but on the boxes of potatoes, seed corn, and other such things which the boys had to sell. Then began the systematic campaign to raise and maintain standards in order that the 4-H brand might become favorably known. Since then this design has been used upon myriads of badges, caps, aprons, pennants, flags and standards in all lines of club work.

As already stated, the girls have been taught thrift and how to save. They have invested a large part of the proceeds from the sale of their products in War Savings Stamps and Liberty Bonds, pure bred chickens, live stock and furniture. Many have used freely of their earnings to improve their homes. Two stories, one from Georgia and one from Mississippi, show how the girls can make money on poultry and how they are disposed to use it:

"Extract taken from Weekly Field Report of the Home Demonstration Agent of Clark County, Georgia, March 1, 1919.

'The little club girl, who by results from her flock of about 50 chickens and 1-10 acre garden last year, completed payment on her piano, and saved a 'nest egg' on her 'college fund,'' has already sold $16.00 worth of lettuce, spring onions and parsley. Her lettuce and parsley were grown in a 'discarded' cold frame which was once used by the school garden. Her onions were grown in the open on her 1-10 acre plot. She expects to clear about $6.00 from her early English peas and radishes. She hopes to have a bank account of not less than $300.00 from all her 'club work' sources at the close of this year's work.' "

This is from the 1919 report of Gladys Horton, of Torrance, Mississippi:

'This being my third year in the club work I was fairly well equipped in material and experience for beginning what I hoped would be a very successful year with my chickens.

Early in the year, Miss Cowsert, our County Agent, reorganized the club and gave us our new instructions for carrying on our work, not only in regard to our poultry, but also continued our

lessons in sewing and cooking and growing feed-stuff for our fowls.

One of the first things I did was to select from my flock of 53 Reds, several of the best hens, whose eggs I saved very carefully for setting purposes. Among those selected were Emma, Susie, Della, Annabell, Lula and Ruby. (You see I have my best fowls named for Home Demonstration Agents.) All of them were good layers, but Emma was superior to the others. She seemed to realize that she was a Club hen and that my reputation as a club member depended to a great extent on her. She actually laid 15 dozen eggs and really deserves honorable mention in my story, and I must not forget my big cock, Talbert, who was my prize winner last year, together with several hens.

Early in March I set my first hens and continued to set them all along until May, setting altogether 263 eggs, and hatching from that total 248 chicks. Besides setting all the eggs I needed, I sold about $35.00 worth, thereby introducing my breed of Reds to the public and more important than that, replenishing my supply of ready cash. I kept an egg record on 15 hens. They laid 2,003 eggs in ten months.

In addition to the eggs, I have sold during the year $49.00 worth of chickens besides having both chickens and eggs for eating purposes whenever we wished. The expense of feeding and keeping my flock is small for I have raised most of my feeding stuff for them, so most of the money realized off my chickens is clear profit.

By crediting myself sales stock on hand and equipment my assests are $541.36. By charging for the stock at the beginning of the year with feed, fencing and house, my expenses for the year were $205.07. This leaves a net profit of $336.79.

Nor is the expense and profit of raising pure bred chickens all the good I have gotten from the Club Work this year, for I have had some very practical lessons in sewing and cooking, besides good training in practical arithmetic and composition. In preparing for the Fair I had to make a table cloth, napkins, a dress, a nightdress, write my booklet, and fill out my record book, on both of which I won a prize."

Girls who made money in the clubs by industry and thrift helped to furnish the home better, to improve the grounds

surrounding the home, and in some cases have even assisted, or given the initiative, with their earnings in building a better home. All of these improvements are made after consulting the Home Demonstration Agent, who generally acts as the financial adviser of the Club girls. Basket making, and other results of club training have also added to the girls' income and a large number of them have good bank accounts to their credit.

In this connection it is especially pleasing to note the ever-increasing number of girls who attend high schools, colleges and universities, paying for their education out of the earnings from their club work. Many of the early Canning Club girls have attended colleges, secured their degrees in home economics, or domestic science, and returned to their states to become County Home Demonstration Agents.

Club members gathering tomatoes for canning

CHAPTER IV

HOME DEMONSTRATION WORK

WHEN Dr. Seaman A. Knapp began the Demonstration Work in east Texas in 1903 he managed to get the farmers to make object lessons in the production of field crops. Within a few years he had the boys conducting demonstrations with crops and live stock. The men and boys were conducting their operations on the farm at large. When his girls came forward to do their share they instituted their little enterprises on the farmstead. They began in the garden, worked in the backyard and then into the kitchen. Some would-be friends wrote Dr. Knapp that he was making a mistake by beginning in the garden with vegetables. They thought he should begin on the front lawn with the growing of flowers. History has revealed the wisdom of his plans. When the girl worked into the home she was in the realm where woman is queen. She entered a new relation of co-operation with mother. The plan of the new education was approaching the culmination. The system of education was being completed because, when the partnership of the mother and daughter was strengthened, the son and the father had been winning achievements, and now, the work of every member of the family was coming to a focus in the home and on the farmstead. This, in Dr. Knapp's mind, was the consummation of the fundamentals of his purpose to reform rural life.

It was in 1913 that the farm women's part in the Home Demonstration Work began to assume such proportions as to

justify the agents in giving it special attention and separate definition. Quotations from all annual reports along about that time trace this natural and logical evolution, as will be seen from the following extract from the records of 1914:

"The cooperative work carried on by the Office of Farm Demonstration Work and the State Colleges of Agriculture, has, from the beginning, emphasized the plan of organization which provides for an efficient, devoted, county woman agent, employed for as long a term as possible and instructed and supervised by the state agent. This plan of personal leadership and supervision is the basis of all successful work. The time of employment of the county agent has increased rapidly so that many are now employed from eight to twelve months in the year. The idea is a well-trained, efficient woman agent in every county, employed for the entire year. Now that the worth of the work has been sufficiently proved, that it cannot be successfully done without close supervision all the year round, it is the policy of those in charge of the work to get just as many counties on this basis as possible regardless of any extension of territory. In those counties, as rapidly as the Girls' Work shall become established and the agent's efficiency proved, demonstration work for women will be developed. It is important that this be done as promptly as is consistent with thorough work so that, as funds become available from the Lever Act for the salaries of women agents, there shall be in existence a practical well established system of Home Demonstration Work with tabulated results for enough counties to be convincing as to the soundness and worth of the scheme.

The Girls' Club Work has opened the doors of the homes for the agents to do demonstration work among the adult women. It has been a process of evolution along natural lines. Many of the county women agents are using the canned products which the girls have put into the pantry, and the poultry products, which have been grown by the mothers, to demonstrate simple, useful lessons in cooking. In some counties the agents have already enrolled from 75 to 100 women demonstrators and each one has a home-made fireless cooker. Creole chicken has been the first lesson, because in preparing it both garden and poultry products are needed. Some agents have

been sucessful in having the women demonstrators do egg grading and form egg selling associations.

Following the work with garden and poultry products the agents easily get to demonstrations in bread making and also in butter making. Incidental teaching in sewing comes in making uniform caps, aprons, and dresses. The girls make these things and embroider the "4-H" club emblem upon them. Of course the mothers help. In all the home work the agents have familiarized themselves with the most useful conveniences and helpful utensils, and especially those that can be made at home. The whole program naturally leads to home sanitation and beautification. It is easy for an agent, who has the confidence of the girl and her mother, to get fly screens put in, and even to install simple and inexpensive water works. It has been found most desirable to follow a well defined program, but all along the line, good agents find hundreds of opportunities to give advice and make suggestions which lead to better living."

When the time came for the expansion and enlargement of the Girls' Club Work these agents, who had been associated with the founder of the Demonstration Work, began at once to study his public utterances in order to see what expression might supplement the conversations and conferences which he had with different people concerned. It was soon seen that in an address to the Demonstration Agents in Georgia on September 16, 1910, he evidently had the future of the Home Demonstration Work in mind. This speech was published and sent to hundreds of people who were interested in the new education. On this occasion Dr. Knapp said:

"It is also realized that the great force that readjusts the world originates in the home. Home conditions will ultimately mold the man's life."

He was hunting for the forces which would change conditions and improve civilization. He wanted the men agents present to understand that although they might do excellent work in the fields and orchards, still the great reformation

would not, and could not, take place until the home was reached.

Dr. Knapp realized that the agents before him were working with men and boys. He knew they must help in what he then called the "third step in the great advance," as he wanted them to get viewpoints and fundamentals. He went deep into the philosophy of the Home Demonstration Work in these quotations:

"The home eventually controls the viewpoint of a man; and you may do all that you are a mind to in schools, but unless you reach in and get hold of that home and change its conditions you are nullifying the uplift of the school. We are reaching for the home."

In this same connection he told of a Chinese boy who came to this country and graduated from one of our great universities. People said he would return to China and give them the benefit of American culture. The fact is, he returned to his native land, grew a queue, put on wooden shoes, married a Chinese girl, and when one of the university professors saw him ten years later he looked and acted like all the rest of them. His home training had asserted itself. The schools and colleges were not powerful enough to counteract such a force. Nobody realized more than this great agricultural philosopher that the home is the fundamental unit of all organized society.

Other extracts from the same address show not only that he was leading the agents to get the right point of view and perspective, but that he wanted them to get the right methods of approach and procedure. He did not fail to impress them with the magnitude of the endeavor and the rare good judgment that would be required. These sentences are typical:

"The matter of paramount importance in the world is the readjustment of the home. It is the greatest problem with which we

have to deal, because it is the most delicate and most difficult of all problems."

"We try to teach the farmer greater thrift, to raise his own provisions, to can his vegetables, so that he may have them the year round; that he must put his money into a better home, and so percolating and drifting through his home there will be a broadening element and there will be a gradual uplift of conditions, and as there is an uplift movement of conditions, the men themselves will become a little broader and a little straighter and a little firmer, till by and by this home society where he must live, this rural society, will be a great dominating force in the land, and we shall become a pattern, not only to our own country, but to all countries, showing how a great and free people were able to readjust their conditions."

"Our project would have been sufficiently ambitious if we had said, 'We will increase the wealth and give the people greater earning power, but other things that we teach incidentally are that we must improve the moral tone, the moral conditions, and the whole prosperity of the people, to try to turn all avenues of the wealth that we create into the proper channels so as to create a better people. But even this is not quite enough. We may have wealth and social prosperity and home comforts and not be a high-minded, stalwart, courageous and brave people. We must teach that."

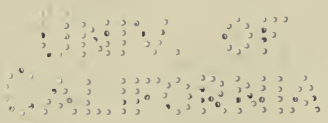
The rapid growth of the Home Demonstration Work in the South can best be shown by the following statistics for 1918:

Total number of clubs, (Women and Girls.)	23,096
Regular enrolment	738,407
Emergency enrolment	3,283,669
Total Amount of Food Preserved:	
Vegetables, fruits and fruit products canned (containers)	64,604,531
Value	$15,566,456.15
Meat and fish canned (containers)	157,605
Value	$56,463.34
Dried vegetables and fruit stored	8,982,787
Pounds, worth	$1,846,625.56
Brined vegetables stored (Gallons)	1,006,222
Value	$382,808.73

Total No. labor saving devices made	68,294
Total No. labor saving devices purchased	32,739
Total No. improved devices for butter and cheese making	20,055
Total No. lbs. butter made under Home Demonstration methods	16,507,711
Average increase in price per lb. for butter made under Home Demonstration methods	$ .173
Total No. lbs. cottage cheese made and reported	1,042,542
Approximate No. of chickens raised	1,592,357
Total No. dozens of eggs preserved in water glass	130,297
No. of dozens of eggs sold cooperatively	575,593
No. lbs. of market poultry sold	1,148,728

The woman county agent in the Home Demonstration Work is a new institution. European countries have workers whose duties are somewhat similar to the farm demonstration agent, but the home demonstration agent is a pioneer. Other countries have various kinds of itinerant teachers, both men and women. They go from school to school and teach groups just like special music and drawing teachers in city schools, but the woman county agent directs her work to the home and focuses it there. She marks her progress by the results achieved by the girls and their mothers in the great science and art of home making and building. In ten years she carried the evolution of her work from one vegetable in the garden through the poultry yard, the orchard, the kitchen, the household with all its better equipment, arrangement and beautification. She is now guiding the activities of thousands of demonstrators whose crowning purpose in the work is the improvement and beautification of the entire farmstead.

At the close of the first decade of this type of endeavor and enterprise by girls and women, it is possible to take stock and determine steps of progress. A traveler, who had occasion to visit several state and county fairs in the South recently



A canning club at work

Canning fresh fish

remarked that there was wonderful uniformity in certain canned and preserved products. Vegetables and fruits had been standardized singly and in combinations. While the first-year girls start with canning of one vegetable they soon advance into the manufacture of this vegetable into a variety of higher class articles of food. This is well. If the girls should continue in plain canning they would only compete with the canning factories, where such work is done more rapidly by machinery. Direction and training by the Home Demonstration Agents have their effect, however, and the girls soon manifest skill and efficiency in putting up ketchups, pastes, soup mixtures, relishes, macedoines, preserves, jellies, marmalades, butters and fruit juices. Dixie relish is a fine example of standardization by the club girls in the Southern States. The instructions for making it were given at meetings of Home Demonstration Agents in every state. Wherever the traveler goes, in the counties worked, he can find this relish not only at the fairs, but also in the stores and in the homes. Of course there have been numerous modifications of the recipe and with good results. Similar results have been achieved with a special chutney and also with other vegetable and fruit combinations.

The women agents have done much to extend demonstration principles to fairs and exhibits. The fairs will be revolutionized. Heretofore an exhibit has simply been an illustration, or rather samples of products. A collection of them is supposed to make a fair. Thousands of square feet of space are covered with them, and for the most part their condition is one of museum stillness, except in the live stock department.

The demonstration idea contemplates a living, active, intelligent human being doing a thing in such an effective way as to attract attention, drive home a thought and compel imitation and practice.

It is passing strange that fair authorities and exhibitors have allowed midway barkers and fakers to monopolize the plan of having a living person to put over each and every scheme, whether it be a freak, a roulette wheel, a weighing machine, or a wild Senegambian. Educational people will put fakers and frauds out of business, and thereby cut a lot of rottenness out of fairs, as soon as they take their one educational idea away from them and use it in displaying the products of the farm and factory.

At a state fair one woman had the job of pulling threads out of silk, cotton and woolen fabrics and burning the threads one at a time. Multitudes of women, and men, also, learned how to tell the composition and value of cloth. They got at least one idea to take home. They will never forget the lesson learned. No such lesson could have been impressed by an array of bolts of silk, cotton and woolen fabrics gathered from all the factories of the world and occupying a floor space of thousands of square feet.

At the same fair a simple ram was in operation showing how easy and inexpensive it is to put running water into a farm home where a little branch or a creek is available with a few feet of fall. A man was present making calculations showing how much water was necessary in the running stream to give so many gallons an hour of running water to a certain height in the house. In that particular state the altitude of the valleys, hills and mountains varies from the sea level to nearly 7,000 feet, so that in many homes the ram is a good solution of water works at small expense. This idea of having one person who has done a thing best, and who knows it thoroughly, to be constantly showing multitudes of other people how it is done, can be applied to most of the things which are put into fairs as still exhibits. It would be a good invest-

ment for the fair authorities to use some of their premium money to pay all expenses and give prizes to the two or three women in the state who had made the best success of grading, packing and selling eggs. Numerous lectures have been delivered on this subject, but a visit to the markets and stores in any large city will show that comparatively few people have caught on. A woman who can tackle a stack of mixed eggs at a fair and put all the white ones of the same size in certain cartons, and the brown ones in others, and then pack them nicely for shipment, would have a crowd of interested spectators gathered around her all day.

One state agent reported, during the war time, when there was a big demand for knitting for the soldiers, that her most skillful knitter was an old lady of 82 years. Meetings were held at her home and she took pride in teaching younger women how to knit. A state fair secretary could have afforded to pay all her expenses and a premium to come to his fair and knit socks in the presence of the passing throng.

A great deal of instruction has been given in regard to making butter and cheese on a farm, but still only a comparatively few women are taking the advice. Some of those who do the best work in these lines should be invited and paid to make an active exhibit of it. This idea has already been worked out, to some extent, in the use of fireless cookers, and in the canning of vegetables, fruits and meats. In some counties, too, the demonstrators have made $20 and $25 hats out of material that cost $2.00 or $3.00, while the visitors looked on with amazement and then proceeded to go home and profit by the example .

Such a homely thing as the making of good soap has been neglected in this country, but there is a revival of interest in it now. If the best soap maker in the county, or in a state,

should take her material and simple equipment to the fair and do the thing there, the interest will be enhanced and the number of soap makers increased. This idea can be extended to the whole of laundry equipment.

It is the fond hope of many Home Demonstration Agents, especially in big fruit sections, that they may be able to get the people to produce wholesome fruit juices in such large quantities from surplus fruits, that they will take the place of many dope drinks that are now so extensively consumed by the people. A working demonstration in the making and pasteurization of such a drink as an exhibit would attract the attention of everybody who has possibilities along that line. There are some wild fruits and berries available everywhere. The selling of samples of real cider, honestly made on the fair ground, would also play havoc with the faking that is now done along that line. Reform in this line is needed in citrus fruit drinks also.

As the demonstration agents, their demonstrators, and cooperators think deeper and get more insight into the application of the demonstration idea, they will use it in more and difficult lines. Dr. Knapp's prophecy, that it would one day reach into the agriculture of every civilized nation of the world, might be expanded to say that it will reach and reform various home operations and customs not dreamed of by the pioneers. This one thought of changing an exhibit so as to have the power of skillful personality behind it has only had its beginning. It can be applied to the inoculation of soils, to the vaccination of animals, to making and using of self-feeders, to cutting up of the carcasses of hogs, sheep and cattle, to the curing of meats, the manipulation of bees, the dressing and packing of chickens and turkeys, the selection of seed, the treating of seed for smut, the grading, curing and

Co-operative egg circle grading and packing eggs

Home Demonstration Agents preparing muscadine products

packing of potatoes, and many other things which need to be done on the farm and in the country home.

One of the best examples of the application of the demonstration idea to a particular fruit is found in the Muscadine Grape Work. Like all other extension work, this is a co-operative proposition. The Horticultural Division of the United States Department of Agriculture began operations on one of the North Carolina test farms about ten years ago. Dr. Charles Dearing gathered scuppernongs, Thomas, James and all other cousins of the muscadine family into a group on this farm. He crossed them, bred them, pruned them and civilized them. They live together in harmony. They grow in clusters like other grapes. This grape is not only indigenous to most of the South, but in vast areas, it is abundant both in the wild and domestic state. Nearly every home there has its "Scuppernong arbor." On the test farm at Willard, North Carolina, in the autumn more than five thousand of these vines are loaded with most delicious grapes having a flavor which is different from all other grapes of the vineyard. Instruction in growing and preservation of these grapes was given at agents' meetings for several years. In September, 1919, one agent from each state, where muscadines grow, came to this farm and took special instruction for a week. They reduced grapes to a common denominator. They converted them into five products: jelly, marmalade, paste, butter and grape juice. An appropriate container was selected for each, and an artistic label was provided. The agents transmitted the instruction to the girls and they manufactured muscadines for home use and for market. The dining car services of three great railroad systems bought all the available surplus and the products didn't last half as long as they expected. Coming seasons will see this activity greatly expanded. Hotels, res-

taurants and homes will buy these high-class products as rapidly as they can be prepared. This is not only a demonstration in production, but an object lesson in marketing. How many so-called market problems disappear with skillful and artistic standardization!

Somewhat similar success has been achieved with figs, berries, cherries, agritos, mayhaws and guavas. A representative of the Bureau of Chemistry gave some special help with various citrus and other fruits, to the Florida agents, and the same high-class standards soon appeared at the fairs, in the markets and in the homes. Specific instruction in drying has brought about similar results with vegetables and fruits.

It is an open secret that there are thousands of people growing poultry who can not cull their flocks and save the layers. This explains why agents hold home demonstration club meetings in poultry yards and give directions there. Such simple, direct instruction leads to better poultry. It often calls for the adoption of the same standard breed for community production and marketing. It also calls for egg circles and for the production of infertile eggs and the consequent profit which comes from furnishing the best to the trade. Poultry clubs were begun soon after canning clubs started, and now thousands of farms have standard bred chickens where mongrels and shanghais used to crow. There has also been much improvement in turkeys, ducks and other farm fowls.

When the club members reached the advanced work in canning, they soon found that safety demanded higher temperatures than ordinary boiling to kill bacteria in meats, corn, beans, peas and a few other things which they wished put into their pantries and on the markets. The scientific instruction, which they received, soon convinced them of the need of

steam pressure canners. Thousands of homes now use such cookers, not only in canning, but in daily cooking of meats, vegetables, puddings and other articles of diet. An interesting incident occurred during the visit of some Home Demonstration Agents to France in the summer of 1919, in co-operation with the American Committee for Devastated France. These agents took about two dozen pressure canners with them. It seems that canning in France is a factory, rather than a home enterprise. The people of France were very favorably impressed, however, with the little portable canners, driers, fireless cookers and other equipment used by the visitors from America. One manufacturer installed machinery for working aluminum and made more than a thousand steam pressure canners. He put them on the market while the American delegation was there. His business is still increasing rapidly.

It is getting to be an ordinary occurrence for a Home Demonstration Agent and a small group of women co-operators to can a whole beef, or a hog. They have recipes for using all parts of the carcass in various products; consequently, there is little waste. The canning of meats is making rapid progress all over the South and especially where there is little cold weather and inadequate refrigerating facilities. The efforts to standardize meats into sausage, steaks, scrapple, puddings, roasts and other things soon get results similar in effect to the vegetable and fruit articles. It enables the maker to establish and advertise a brand and the consumers soon learn about it. Such work leads to interest in curing meat also. It has been observed that when the girls and women on a farm put up excellent food in attractive packages it gives them a pride in their home and farm. It frequently causes them to give the farm a name because it looks well on the label and on

other advertising matter. Some girls and women have established reputations for canned meats that are the best that can be found. For instance, they feed their poultry on milk in addition to the grain and seeds which are abundant on the farm in the summer and fall. They then can the chicken into different products. This seems to be a special field requiring excellent work, appealing to a high-class trade and yielding unusual profits. Of course it follows that the people who succeed with chickens will also can turkeys, ducks, geese, guineas, fish, and even wild game where it is abundant. The club members in Oklahoma who canned Jack rabbits and standardized "Bunny Sausage" are good examples of the natural and logical development of meat canning. Likewise combination packs of vegetables and meats have become popular.

Perhaps results are achieved more quickly in bread work than any other. The crying need of the allies for wheat flour during the war emphasized the importance of wheat substitutes. Uniform instruction in the making of breads was given to the agents in all the Southern States. Of course additional instructions were given by experts on state staffs. At all events, both girls and women went into bread clubs and contests with zeal and energy, and bread making methods were changed over a vast scope of country.

One of the most difficult reforms undertaken by the Demonstration Agents is in the making of farm butter. It is a necessary effort because proper handling of milk products leads to the use of more milk in the diet and it also means better sanitary methods in the home—gives opportunities for impressing lessons in both sanitation and nutrition which would be difficult if presented in ordinary dogmatic fashion. In some counties there are now many, and in many counties

there are some, women demonstrators who make farm butter by the best methods and put it up in artistic "4-H" cartons. Now that the start has been well made the numbers will increase more rapidly. A special campaign for one year, during the war, on cottage cheese and other milk products has served to advance the milk work. Home Demonstration Agents are still pressing to get cows on farms which do not have them. They are also keeping the food value of milk constantly before their people. This means health.

Doubtless the women agents have had the most fun with the demonstrations in time-saving and labor-saving devices for the home. As a rule, they started with fireless cookers. Given a soapstone, a bucket, a lard can and some sawdust or excelsior, and the Home Demonstration Agent will soon make a "Fireless" which will render the toughest old rooster tender and toothsome, while the agent is conducting a preserving or a butter making demonstration with the whole club around her. In addition there are a few men and boys in the audience, who are constantly expressing their doubt as to the prospective chicken dinner. They are dietetic skeptics. They are forthwith converted, however, and become coworkers for home improvement. Thousands of fireless cookers have been made. So, also, have iceless refrigerators, kitchen cabinets, wheel trays, ironing boards, butter molds, woodboxes, shower baths and other useful utensils and conveniences. Of course the fathers and brothers have helped, but the women and girls used their own mechanical and inventive ability to a large extent. It has been found that it develops ingenuity to focus the minds of a whole community upon the farm kitchen and the farm home generally. The Patent Office will show the effect of this campaign in the near future. Not enough inventive thought has been put upon this phase of

farm work and life. More attention has been given to farm implements and machinery. Let it not be inferred that the home making of devices and conveniences has prevented, or hindered, the purchase of the best available equipment along these lines. On the contrary, it has had the opposite effect. In counties where good home demonstration work has been done, the people are installing water works and lighting systems more rapidly than has ever been known before. This means, too, that they are buying washing machines, churns, meat grinders, mechanical refrigerators, motor-driven sewing machines and other similar equipment which reduce the drudgery, and increase the intellectual activity of farm women.

It can be readily seen that the foregoing program of work, as evolved during a decade, has brought the women agents into the home, and their advice and help are now being sought in home arrangement, equipment, furnishing, construction and beautification. The average agent can now look over a kitchen and draw plans for the placing of the furniture so as to save steps. She can take observations and measurements of the bedroom of a club girl and show her "how to adorn a simple home and make it appear like a palace," without incurring more expense than the girl can spare from the money she has made on garden or poultry. This agent can survey a site and suggest the kind of home suitable for such location and also in keeping with the resources of the people who are to live there. The time has arrived also when this versatile worker must be a landscape architect and artist. Many of them can already lay out a farmstead, and make it symmetrical and beautiful. Any agent should be able to change a front yard into a lawn. This is so much needed in those sections of the country where the front yards are bare, and where they have not learned to grow grass, shrubbery and flowers in proper

arrangement. After a few years of this kind of home demonstration work the passing stranger will be able to see more tasteful beauty than is possible now. It will be, "The better civilization." When the farmstead produces a larger share of the farm profits the women and girls usually get more money to spend upon the home itself.

The future alone will show the effects of this new work upon the civilization of the nation. It may be the mission of this new teacher and guide to show the world how wise it is to develop the country home with all its profit and beauty and thus keep so many folks from crowding into the cities. If so, they will maintain a proper balance in our civilization and thereby save it. Most of the social unrest and disorder of the world will be found in the cities. When Dr. Knapp's philosophy is generally adopted, the dangers which now menace will disappear. People will stop the mad rush to the cities, and with more profitable industry in the country, they will be happier in building a great rural civilization. A man with a beautiful home and a busy, contented family will never be an anarchist. Science and invention have done so much for travel and transportation that the city is closer to the country. This makes improvement necessary on the farm, and increases possibilities. In the first decade of the Home Demonstration Work the instruction and the work have been along lines of production. As the forces swing into the circle of the next decade, the tendency of the evolution will be stronger toward manufacturing and marketing. There will be more standardization. As work like this is done more and more in separate homes, there will naturally be more community co-operation and organization. Herein lies the secret of all successful organization of farm people. The homes and farms which are doing advanced lines of similar work will

have so much in common that they will come together, and undertake even more important things. An organization without definite object, purpose and plan is worse than no organization at all. In a few years there will be millions of farmers in the condition of Hans Hansen, of Denmark, as described by Dr. Clarence Poe, of the *Progressive Farmer*, when he says:

"The secret of his prosperity is that he is not content merely to make one profit on his work — that of growing crops. In other words, Hans gets agricultural, manufacturing and commercial profits. (1) Profits as a farmer for growing his crops; (2) Profits as a manufacturer (in a sense) through his dairying and stock-raising activities and (3) Profits as a merchant, by reason of sharing the cooperative association dividends obtained in marketing his profits. No people ever get rich merely by selling raw material — a fact which explains why the South remains relatively poor in spite of its enormous production. Danish agriculture prospers because it is not merely a matter of growing raw material. It is a well-organized commercial industry."

Likewise there will be hundreds of communities made more prosperous and happy because of community co-operation. Certainly this new corps of workers has furnished many inspiring and heroic examples of zeal, devotion and fidelity in the regular lines of endeavor, and also in the not less important incidental phases, which have furnished untold opportunities for the development of leadership and service. They have co-ordinated their activities with the Farm Demonstration Work and other lines of extension. They have co-operated with teachers, school officers, boards of trade, fiscal authorities, charitable organizations and all forces working for the betterment of humanity. Manifestly a new force is abroad in the land and the world feels and knows it.

The women agents have entered helpfully into all phases of home and community life. Numerous examples are re-

ported weekly which indicate that the people regard the agents as trainers, guides, gardeners, cooks, mechanics, artists, architects, leaders, counsellors and friends. One effective example will tell the composite story. It is the case of Miss Rachel Martin, who came from Mississippi to be a county agent in Harnett County, North Carolina. She not only did good regular home demonstration work, but she led her people in a masterful fight against the "Flu." She reduced want, relieved suffering and saved lives. Later, in taking charge of what appeared a recurrence of the scourge, she ran into spinal meningitis and met her death. An extract from an address of the Chairman of the Board of County Commissioners, delivered at a memorial in her honor, shows how people appreciate such work and service. Following the tributes at the meeting, plans were developed for a memorial building to contain the offices of the Home Demonstration Agent, the Farm Demonstration Agent, County Nurse, the County Superintendent of Education and other public welfare workers. The authorities were gratified, upon opening the desk of the departed agent afterwards, to find that she had already dreamed of such a building and had drawn a beautiful sketch which was adopted as the basis for the plans. The Chairman spoke in part as follows:

"My Friends: I fully realize that no words of mine can add any luster to the memory of our departed friend; but I am bidden to come in behalf of the Board of County Commissioners and the Board of Education, who, jointly with the Home Demonstration Department, have made Miss Martin's presence in our midst possible. We feel that we owe it as a duty, and we claim, as a privilege, this opportunity to publicly acknowledge our sense of obligation to Miss Martin for the splendid service that she has rendered the whole people of this county.

Those of you familiar with county affairs know that for every dollar the authorities have to spend there are many worthy calls,

and the constant problem with which we struggle is to discriminate between these worthy calls, and place the public money where it will bring the largest returns. When the proposition of sharing a part of the expense of providing a Home Demonstration Agent for Harnett County was first presented to the county two years ago, we were naturally in doubt as to its wisdom. The work was new and unproven in our midst. Miss Martin was a stranger, and her work as a public servant was unknown. But we took a chance, and this heroic soul began the task of carrying her message of service into the five thousand homes of the county.

It was a great task, undertaken amidst great difficulties. The public mind was torn and distracted between the ambitions of war and the tragic sorrows thereof. She was misunderstood and criticised, but it deterred her not. Suspicion, the poisoned dart of ignorance, glanced from the shining shield of her own clean conscience, and fell harmless at her feet. The indifference of those whom she would serve alone disturbed her.

But she did her work, and won her way, not only into the homes of the people of the county, but into the hearts of all who came to know her. Even as the Master chose the common things of life to teach his profound lessons, so she took the ordinary cares and problems of the home — aye, even with pots and kettles she taught the lessons of the nobility of service!

When the Great Court beyond convenes and the name of Rachel Martin is called, there will come a host of witnesses from all over the county, volunteers who will wait for no subpoena. There will be humble mothers anxious to testify that 'This is the one who came into my house and showed me how to lighten the burdens that oppressed my life.' Little children will come exclaiming, 'This is the one who pressed to my lips the cup of cold water in Thy name!' And we will all join in declaring that she was the one who sought and found the footsteps of Him of whom it was said, 'He went about doing good.' "

And so, my friends, she came among us a stranger, surrounded by difficulties; and she leaves us a friend, universally loved, having justified her calling. She fell a victim to her work, but not an unwilling victim."

How Dr. Knapp would have enjoyed a present-day meet-

ing of Home Demonstration Agents! He would have been rejoiced and inspired by their reports of work accomplished and with the prospects of further expansion and evolution of their activities. But he had the vision in advance. He knew what the demonstration principle would do when it reached the average home. So many conversations and so many extracts from his speeches show what he anticipated. His patience was wonderful! He must have wanted to see his great system of education completed, although he was more than 75 years of age when the foundations of the Home Demonstration Work were laid. He was willing to build gradually and steadily.

Once upon a time, Dr. Knapp and one of his assistants went to one of the states for a conference with the authorities in regard to co-operation in promoting the work. They arrived in the afternoon, paid their respects to the Governor and other officials in the evening and then retired about midnight to the hotel where they had adjoining rooms. At six o'clock the next morning Dr. Knapp was up, and coming into the other man's room, this conversation ensued: *"Well, Professor, how are you this morning?" "Not much, Doctor, I feel somewhat stewed up." "What is the trouble?"* said he. *"I am two hours short on sleep,"* said his assistant. *"Take a cold bath,"* said Dr. Knapp, *"it will make up for two hours!"* Then he added: *"Professor, have you figured out just how things are going to happen today?" "No,"* said the other man, *"I confess I have not." "Well,"* said Dr. Knapp, *"you don't have to be a brilliant man to succeed in the world. All you have to do is to think ahead of the crowd."* He then proceeded to outline the day's conference. He anticipated a disagreement, told what position each man would take and then gave his plan for harmonizing them. It happened that way

from start to finish. He had thought out the whole situation in advance. This incident is characteristic of the man. He thought the whole plan of demonstration work, including the home demonstration part, but was willing to bide his time for its complete development in this country and for its spread into other lands.

During the fiscal year of 1918-19, which covered the closing days of the war, the Extension Work reached the peak of its expansion. More than 2,400 men agents were on duty and nearly 2,000 women agents. This means that about four-fifths of the agricultural counties of the United States had men agents, and nearly two-thirds women agents, during the emergency period. Fifteen million six hundred and seventy-one thousand dollars of Federal, state and local co-operative funds were used in promoting the work that year. More than 2,000,000 boys and girls enrolled in the clubs and did their part in the nation's hour of need. Nearly 3,000,000 men and women enlisted and conducted useful and profitable demonstrations on the farms and in the homes. The results were prompt and potent, but the effects are more far-reaching than ordinary minds can fathom. It is manifest that a great educational movement has been begun and that it has had a most rapid evolution and advance. Doubtless the next few years will witness its further development and perfection. Under reconstruction conditions, it will spread more and more into other countries. Much has been done, but the possibilities are opening up and unfolding. A call to duty is made to this growing army of peace and progress. Dr. Seaman A. Knapp outlined this task in clarion tones at the Mississippi Agricultural College as far back as 1894. His words and his philosophy are still timely and appropriate. He said:

"Colleges of Agriculture and Mechanic Arts: Your work will

not be done until every farm house in the broad land is united by a highway so well constructed that the common wagon is equal within the limit of its work to the exclusive car, until the railroads of the country shall cease to arrange their schedules to see how much they can wring from toil, but how much they can contribute to a nation's wealth; until our work shops are supplied with such marvelous machinery, handled with such skill and economy that in every industry we shall not only supply the wants of our own people, but we shall successfully invade every market of the world; until every wage-earner shall be a skilled craftsman and a free man in his own home, and feel a yeoman's pride with a yeoman's privilege; until every farmer and planter shall be so well instructed that he will mold the soil to his profit and the seasons to his plans, till he shall be free from the vassalage of mortgage and the bondage of debt and become a toiler for pleasure, for home, for knowledge, and for country; until capital and labor shall unite under the leadership of knowledge and equitably divide the increment of gain. Your mission is to solve the problem of poverty, to increase the measure of happiness, and to the universal love of country add the universal knowledge of comfort, and to harness the forces of all learning to be useful and needful in human society."

Silence the bugle and the huzzas; lower the banners, we are only half civilized. We should not under-value that half. What infinite labor has it taken to secure it. Through what wreckage has the car of liberty passed. It has required thousands of years of conflict to establish law and order upon the present basis; to evolve the modern nation from patriarchal chaos. At each the stronger individual, the more powerful tribe, the wealthier and more populous city or district fought to maintain its prestige and sullenly yielded its vantage ground to national necessity. We paused and called our attainments, liberty, civilization; when the greatest war known to any age is still going on; the war of labor and capital, of employed and employer."

What a glorious conception of the "democracy of man"! What an opening up of opportunity he contemplated for the craftsman and farmer! He hoped to see them free from mortgage and debt, and "toilers for pleasure, for home, for

knowledge and for country." He has done much to bring about such a condition and his works do follow him. The incident which best illustrates the spirit and philosophy of his democracy occurred when he was in British India at the time he visited the Orient to make the rice investigations. He was traveling on the train, with his interpreter, when they stopped at a station where thousands of people had assembled. They were making obeisance and doing homage to one man. They bowed down to him and kissed his garments. The man came into the car where Dr. Knapp was and took a seat opposite him in the compartment. Many folks followed and placed flowers all about him and then left him in his glory. Dr. Knapp thought to himself: *"This is too much for one man, so I'll look out of the window and not appear to notice him."* He did this for a few miles, but he soon saw that the distinguished personage was restive under such inattention. Dr. Knapp seemed very much interested in the crops and landscape. Finally, the Hindu ruler, for such he was, couldn't stand it any longer, so he sent over his card. Dr. Knapp returned the courtesy. The ruler then came over and introduced himself by saying: *"I am So and So of such a city and province of this country."* The reply was: "I am Seaman A. Knapp, of Lake Charles, Louisiana, United States of America." *"But I am a rajah and the ruler of fifteen millions of people,"* said he. *"I am a mahrajah and a joint sovereign of eighty millions of people,"* replied Dr. Knapp.

The Hindu sovereign took another tack; he said: *"I have the power of life and death over my subjects."*

Dr. Knapp said: *"I have the power to give life and hope to my people and I do not want the power of death over them."* The rajah became intensely interested in the methods of democracy of the American Republic, and Dr. Knapp, after

giving him further information, went on his mission of service to his fellowmen.

When all extension workers learn the philosophy of object lessons, when they seek first the demonstration, realizing that the things of pedagogy, of propaganda, of organization, and even of oratory will be added unto them, then it will be possible for a careful observer to ride along the road and see that farm and home demonstration agents have been working there. This is true in many cases now, but the evidences should multiply as the years go by. A farmer, near Winterboro, Alabama, had been a demonstrator with crops and live stock for the county agent. His wife had been doing work in the kitchen for the woman agent. Their daughter had been a prize winning club member. All had made extra profits. They decided to build a new home. They asked the advice of the agents, who secured expert help from the College and the Department, along architectural lines, both for the building and the environment. They followed instructions carefully as they were accustomed to do. In less than a year the State Home Demonstration Agent visited the community and saw nine definite important examples of the effect of the object-lessons as wrought into other farmsteads. Every phase of farm and home activity has been demonstrated and illustrated in this way since Walter Porter began in 1903. Doubtless there will always be many agents who will realize the power of such methods. If so, the crowning work of the life of Dr. Seaman A. Knapp will not be lost to the world.

Through the development of all phases of the Demonstration Work its founder was constantly impressing his inspirational philosophy upon his agents and co-workers. A few quotations along this line will suffice:

"Your value lies not in what you can do, but in what you can get other people to do."

"Any race betterment to be of permanent value must be a betterment of the masses."

"The demonstration work may be regarded as a system of adult education given to the farmer upon his farm by means of object lessons in the soil prepared under his observation and generally by his own hand."

"The basis of the better rural life is greater earning capacity of the farmer."

"The common toiler needs an education that leads to easier bread."

"The world's most important school is the home with the small farm."

"No nation can be great without thrift."

"It is impossible to impress upon anyone that there is a dignity in residing upon a farm with impoverished soil, dilapidated buildings, and an environment of ignorance."

"A great nation is not the outgrowth of a few men of genius, but the superlative worth of a great common people."

During the decade following his death many estimates and appreciations of Dr. Knapp's life and work were published. A leading Southerner spoke of him as "Teacher, farmer, philosopher and statesman." Some have eulogized him as the "South's greatest benefactor." Dr. B. T. Galloway, former Chief of the Bureau of Plant Industry, United States Department of Agriculture, said: "The effective character of the Demonstration Work has been so fully proved that public opinion is largely crystallizing around it as a method of mass teaching and reform that is certain, if continued, to revolutionize agricultural conditions in the United States," and Hon. Walter H. Page, former Editor of the *World's Work,* and later Ambassador to England, said, "It is the greatest single piece of constructive educational work in this or any age."

Soon after Dr. Knapp's death, there was a general move-

ment among his friends and admirers to erect some form of a memorial in his honor. Suggestions came from many people. Some thought there should be a statue on the grounds of the Department of Agriculture in Washington. This would show that the nation appreciates the heroes of peace as well as those of war. Some wanted a bronze or marble bust at every agricultural college as a permanent inspiration to the generations of students who will gather there. But it was found that Dr. Knapp had expressed an opinion upon the subject of monuments. In view of this fact, and in respect to his sentiments, this movement was converted into a living memorial, active in the service of humanity. This memorial is now the Knapp School of Country Life and the Knapp Farm at the Greater Peabody College for Teachers at Nashville, Tennessee. How much more appreciated! This School has been doing advanced work in the preparation of Demonstration Agents and the farm makes demonstrations which are seen by thousands of visitors. It has won premiums for exhibits of thoroughbred live stock and excellent crops at many large fairs throughout the country. But some will ask about the sentiments expressed by this seer and philosopher, which changed the form of monument planned by his friends. He had said: "The least worthy monument to a man is a granite block or a marble shaft. They represent the dead man's money and the kindness of friends. The true monument is what the man has accomplished in life. It may be a better gate, or house, or farm, or factory; put his name on it and let it stand for him." Surely then the work which Dr. Seaman A. Knapp did for his country and for civilization will be an everlasting memorial!

CHAPTER V

DEVELOPMENT OF THE FARM DEMONSTRATION AGENCY

EXTENSION work in the United States begins with the Demonstration Agent and he begins with the farmer on his farm. Of course the histories will connect Extension Work with Experiment Stations and Experiment Station Work with the establishment of Agricultural Colleges under the Morrill Act of 1862. This is the evolution as it is outlined by legislative enactment and governmental provision.

It was just a quarter of a century after the enactment of the Morrill Law before the Hatch Act was passed making appropriations for experiment and research, and another twenty-five years rolled around before Congressman Lever had his Extension Bill ready to be enacted into law. Thus these developments are written into the statutes of the nation, but they do not tell the whole story. Casual readers may assume that one followed the other in easy and ready sequence, but such was not the case. Much thought and discussion intervened. The Agricultural Colleges groped for many years before they found their mission and began to fulfill it to any considerable degree. With but few students really taking agriculture, and still fewer becoming farmers, the faculties were not prepared to go out and instruct adult farmers. Teaching adolescents is quite a different thing from giving timely and appropriate knowledge and guidance to men who

have had twenty or thirty years of experience in their professions.

The colleges could not get very far with farmers' institutes or movable schools because the supply of information and the methods of instruction were neither abundant nor adaptable. In fact, they had little to extend, so the extension work was insignificant, as a general rule, for forty years after Agricultural Colleges began. Likewise it was impossible for the Experiment Stations to inaugurate extension work. They conducted experiments in order to find facts and discover truth. In no sense were these experiment farms conducted to make profit and demonstrate best methods. It was contemplated that they might lose money in order to advance science. This idea could not be extended to general farming without disastrous results. So it should not have been expected that an efficient system of extension activity should grow out of the Experiment Stations.

It has really come to pass that experiment and research call for one type of worker while extension develops quite a different one. Likewise the professor who teaches the students in the college has a profession all his own and may not be suited for either of the other lines.

Another criticism, which may be fairly brought against the early efforts in extension work, is that they were directed mainly to the most intelligent and the well to do. Because of the lack of logic in their position and because of their incorrect methods of approach there was, of necessity, a waste of money until proper changes and corrections were made.

It may not be so bad, after all, that there was some waste motion in executing the provisions of all these Acts of Congress if progress has been made, and if efficiency has been

substituted as rapidly as the better way is discovered. If progress could not be made in an untried field any other way, then it is largely a matter of avoiding the same mistakes another time.

It is getting to be generally recognized that the county agent is the keystone of the arch of agricultural extension. One mathematical definition says extension has three dimensions: length, breadth and thickness. Under the old method of instruction it had only one, viz., length. It extended from the college to the farmer. Under the new plan, the demonstration by the farmer is the center of influence. Here is the point where the pebble is dropped into the lake and from which the waves go out in every direction. Of course the College of Agriculture and the Department combine in their efforts through the agent. They also unite in contributing their information and knowledge. He often represents the authority of the county commissioners, the county board or the county court. Likewise he has the co-operation of the bankers and other business men. These interests focus in him as he starts his program of extension on a hundred different farms. Sir Horace Plunkett, who did so much for Ireland, once urged Dr. Seaman A. Knapp to organize the farmers into their own associations, leagues, or societies, rather than try to develop sentiment and enlist the business and professional men to aid the farmers in promoting a better agriculture. The reply was that the word "Co-operative" in Farmers' Co-operative Demonstration Work, must include all classes if we expect to build a great civilization with agriculture as its main foundation. He had definite plans, with the agent as a nucleus, to reform the agriculture and revolutionize the conditions of his country.

Thus it appears that Dr. Knapp was wise when he called

this new worker an agent. He knew that this man would have influence and power if he should become the representative of the best farmers, the best business men and the leading educators of his county. These are backed by institutions of prestige and usefulness in his state and nation.

Some prejudices is attached to the word agent because of the work of book agents, sewing machine agents, automobile agents and other men whose business it is to sell and deliver such goods. It must be realized that many of these agents are hustlers of a high order. They get results, or quit. A demonstration agent must do likewise, but an expert or an adviser may simply lecture or talk and then blame someone else for failure. Recent thought seems to be tending more and more to this interpretation of the real significance of the title. Editors and thinkers generally are now seeing and expressing what the founder of the Demonstration Work taught in the beginning. The following language is taken from *Hoard's Dairyman,* of January 17, 1919:

"We like the word 'agent.' It carries in its meaning the duties of a county leader, a supervisor, as he is sometimes termed. Agent means one who exerts power, or has the power to act; one who acts for or in place of another by authority from him; one trusted with the business of another.' "

This extract from the *Kansas Farmer,* of March 4, 1916, gives a very vital point which is fundamental for all who have responsibility in promoting extension activities:

"Being spoken of as the 'county expert' or 'county adviser' is the most serious handicap to the work of the county agricultural agent. It seems necessary again and again to correct the impression that the county agent is some young fellow who is being sent around to give experienced farmers advice on how to run their business. The real facts are that nothing exists that cannot be improved. Every community has its problems. There is a best way and a best time to do things on the farm, and the combined experience

of all the farmers in a neighborhood is far superior to the knowledge of any one man — no matter how much he may know or profess to know. Usually the best man in the community — those who have succeeded, made money and improved their living conditions — are those most interested in their own business and who have always been eager to learn how to do things better. These are the people we find organizing county farm bureaus and hiring good live men to help them in coordinating the experience of all and getting into practice the best things in farming. There must be a desire for information and those who are opposing the idea and arguing against it are shutting themselves off from a real opportunity."

Doubtless definitions by county agents themselves in this connection will prove interesting. Recently prizes were offered in North Carolina for the best definition of what the county agent really is. The following were considered the two best. This definition won the first prize:

"A county agent is a farmer, trained to serve his rural people as an apostle of the high ideals of living; as a teacher of the progressive principles of the business, the industry and profession of farming, and as a promoter of whatever will make for the welfare of individuals, communities and state."

This one won second:

"A county agent is a man placed in a county by the Federal Department of Agriculture, cooperating jointly with the State College and Department of Agriculture, to give his people a vision and to lead them to work toward the highest ideals in agriculture, education and religion, which gives the best we have in our most civilized and enlightened life."

The *Dallas Farm News* of February 4th, 1919 tells the following:

When Louis F. Arnold became agent in Collin County, Texas, in 1916, he visited every community in the county and spoke as follows to the assembled farmers:

"The Extension Service of the A. & M. College, the United States Department of Agriculture, and your county officials are cooperating in paying me a salary to help you farmers increase your

crops. If I can do this, I shall earn my salary; if I can't do it, I have no business here. Now, I want one man in this community to farm one field exactly as I instruct him. I want the rest of your people to watch the results, and if that field doesn't show an increase in yield, then it is your duty to go to the county court and have me dismissed."

"Mr. Arnold secured one or more farmer demonstrators in each community, a total of forty men making the agreement. He taught these demonstrators how to prepare the soil for planting the seed, how to select good seed and how to cultivate their growing crops. In each case the crops so grown harvested a greater yield per acre than corresponding crops on the same or neighboring farms. 'Seeing is believing.' It is indeed an unprogressive farmer who can watch a neighbor across the fence throw ten or fifteen more bushels of corn into his wagon than an acre of the same kind of soil his own farm has produced, without, at least inquiring how this increase was procured. Hence a majority of Collin County farmers became convinced that scientific farming, despite its awe-inspiring name, was worth trying. These trials invariably proved the value of the methods taught by the agent, consequently, the farming standards of Collin County have been revolutionized during the three years of service."

The popular understanding of the terms and definitions used by the founder of the Demonstration Work is remarkably clear in view of the fact that in many quarters, where he did not come in direct contact with its inauguration, there was a manifest effort to assume originality or superiority by a change of nomenclature. Even under such conditions there is a steady trend towards the well considered and fundamental phraseology and plans. Better still, there is a growing appreciation, on the part of the people, of the character and value of the real Demonstration Work brought about by the county agents. This is well expressed in an editorial in *Wallace's Farmer,* of Des Moines, Iowa, under date of September 24th, 1915. It says:

"A college professor once complained to us that these county

agents were getting more money than the professors. We said to him, 'Yes, and rightly, too; for it requires a higher grade of ability to do this work successfully.' Students in the college are obliged to attend the professor's classes and submit to whatever markings he gives them; but the farmer is not obliged to seek the advice of the county agent, nor to follow his suggestions. The county agent must be able to win men, and winning men is a far different proposition from pouring information into ears more or less willing, information which they are there to gain.' "

"All success to the county agent. May there be more of his kind, more and better and best. It will not be long before the farm women will want a county agent of their own. In fact, we have some of them now. They have a work even more difficult than the farmer's county agent."

Even at that time Home Demonstration Agents were already at work in large numbers, in the states where the Farm Demonstration Work was first established.

It does a serious injustice to a young man to send him into a county with the title of farm adviser. It involves a certain amount of assumption and egotism for him to go to the farmers and say: "I am your adviser." It is a common saying that advice is cheap. Anybody can give it. Furthermore, the farmer may have some self assertion in the premises and declare that advice from such source is not wanted or needed. How different the attitude and the approach if the young man goes to the farmer and says: "On behalf of the constituted agricultural authorities of our county, state and nation, I want you to make an object lesson in crops or live stock for the benefit of your community and the commonwealth. Then I wish to be the general representative in spreading the news of your success wherever it will help others." The appeal is different. The urge is different. It can be used with rich or poor, educated or uneducated. After a few years of successful work of this kind he can well be con-

sidered a consulting adviser in many farm questions which constantly arise.

In talking to some of his assistants in his office in the early days, Dr. Knapp said that in order to do this work successfully, "You must know agriculture, you must know education and you must know people." He left a strong inference, also, that if they did not know people that their knowledge of the other two subjects could not amount to much. Herein lies the distinction between the Demonstration Work and other methods of agricultural extension in this and foreign countries. It is in the method of approach and the encouragement to self-help for the sake of others. These principles are simple, so simple that the wonder is they have not been used in this field before. The same thing is true, however, in all great discoveries and inventions. Somehow, their very simplicity seems to cause them to be overlooked. Students from many countries have said that this demonstration phase of extension service is the great contribution which Dr. Knapp made to education and civilization.

The duties of the agricultural consulants or counselors of Denmark, Belgium, Norway, Sweden and other European countries are more similar to those of the Demonstration Agents in the United States than any other class of workers. Counselor is a better word than adviser. The first syllable of counselor means together. That is the derivation. This official and the farmer are supposed to reason together. Each contributes to the performance. The wanderlehers of Germany had a little more mandatory or semi-military authority. They were a part of the system. The traveling professors of France and Italy work more through the schools, although they are counselors also. In fact, that is true, to a large degree, in extension work as it had been developed in all European countries.

A few more words about the history of the establishment of the system of agricultural consulants in Denmark may throw light upon its present status. About 150 years ago the Royal Agricultural Society of Denmark was organized. It was made up of individual farmers at first. This society had, for its object, the improvement of the agriculture of that country. They offered prizes for the best essays and bulletins by leading farmers. The winners achieved prominence. Often their counsel was sought and given. The society encouraged those who made real contributions to better agriculture to advise and help others in their parts of the country. Many of them volunteered to give their services to go to the local societies, to schools and public gatherings generally to propagate their good work. Their success made their advice helpful and desirable. A county agent may become an adviser after a year of successful work, but he had better not pose as one till he establishes a reputation.

The Danish Royal Agricultural Society, established in 1769, had for its object the promotion of education and agriculture. It was made up principally of large farmers. The Society offered prizes for the best work in farm management and home improvement and the best popular descriptions of such work. The men who won these premiums were sent around to give lectures to local societies and to farmers in general. From the very nature of the case their work was largely of the lecture or institutional type. They talked to groups and did not have the time or disposition to undertake to impress lessons upon them through individual demonstrations. However, the activities of such traveling instructors gradually developed the duties of consulants or counselors.

The Royal Agricultural Society developed first, but it promoted the local organizations afterwards. It was about

100 years before the local clubs grew to such proportions as to have a far-reaching importance. At present they are federated into a national organization, but the Royal is a different organization. It promotes research and other scientific work. They receive gifts from philanthropic citizens for the promotion of their activities, also fees.

In 1864 the Danish Government gave greater effectiveness to the consulants by approving the work of the Society and making appropriations for the continuance and expansion of this system of instruction. It is worthy of notice, in passing, that the above-named countries, not having emphasized the demonstration method of teaching, did not appreciate the importance of the Junior Demonstration Work which has been pushed with such success in this country as Boys' Farm Clubs and Girls' Home Clubs. Some of these countries are moving now to organize such clubs and also to develop the demonstration idea to a greater extent among adults.

In Denmark there are consulants in dairying, in plant culture, in agricultural machinery and other lines. They are more like the specialists in this country. Perhaps they come in closer touch with the farmers than our specialists do, except in the smaller states of our country. In most sections of the United States the county agent is the real connecting link between the experimental, or theoretical side, and the practical and utilitarian. He must have workable knowledge and usable information available or he must be able to find it on short notice. He becomes a walking encyclopaedia and also a skillful performer in numerous lines. If he finds a farmer with his tractor or cultivator out of fix, he must be able to locate the trouble and get the machine going again. In this age of invention and improvement in manufacture, mechanical skill and knowledge are indispensable. The A. & M. landgrant col-

leges are justifying the "M" in their titles in a way that they did not, and could not, in their early days. A county agent must be a general, ambidextrous engineer, skilled in the rudiments of drainage, mechanics, electricity and other farm matters. Much emphasis has been laid, in some quarters, upon surveys, but the demonstration agent must make all kinds of surveys from making plats of boys' club acres, to the study of the entire crop and live stock industries in all parts of his county.

In Sweden the itinerant agricultural instructors are called agronomists. Our county agents must be agronomists, horticulturists, entomologists, especially in work with bees and certain insects which affect the crops of their counties, and veterinarians, when fighting contagious diseases among live stock.

In some states the Director of Extension and other authorities have made rather general use of the word "leader" as a title for agents in charge of the Junior Demonstration Work as well as for certain supervising agents on the state staff. This title is open to the same criticism as that of "adviser." An agent who has assumed a superior title is put to a disadvantage from the first. Leadership must be proved, and not simply claimed. How glad people are to follow real leadership and how readily do they recognize it! But this job does not seek merely to develop leadership in the officials who have charge. Far from it. It is the prime duty of such officials to teach through others, so there may naturally be a development and distribution of leadership. This idea is well brought out in the *Banker-Farmer* of October, 1919, when it says:

"'We look on our county agent as our leader,' says a man who ought to be leader in his country's agricultural affairs but isn't. The county which depends on its county agent for leadership is making

a grave mistake. He may leave some day. Then another leader must be trained which should have been done in the first place. The county agent who becomes a leader himself and fails to develop leadership among his constituents is a failure, no matter how efficient he may be otherwise. So is the county agent who undertakes to do things for his constituents which they should properly do for themselves for he is fostering dependence rather than development among them. The true function of a county agent is not to be anybody's or everybody's hired man or clerk. His job is infinitely bigger than that, so much bigger that it is useless to attempt a full definition. Happily most counties and their agents understand this right well and they are progressing as they should."

There is more opportunity for advanced and helpful service as a county agent than in the positions in regularly established lines of education. This is one reason why this kind of work appeals to a man of originality, ingenuity and aggressiveness. State and district agents may help, and staff specialists may contribute unusual and necessary knowledge, but the county agent is on the firing line. He makes the points of contact. He unlocks the treasure houses of knowledge and gives the golden key to his fellow men. He opens the doors of opportunity to young and old who have not had a chance to enter before. Each Agricultural College has a Director of Extension, but the real director is the man who is changing the nature and output of the crops in the fields, the standards of breeding of the farm animals, the direction of thousands of lives, the trend of events and the destiny of our civilization. Such work is being done and these men are doing it.

An editorial appeared in the *Southwest Trail,* a few years ago, which described a pioneer agent and gave something of his method of work and some of the results. The following extract is taken from *The Trail:*

"Fifty years ago the circuit rider, a bible in his saddlebag, was a familiar figure in the woods, making his house to house visits

among the settlers, to look after their spiritual welfare. His place to-day is taken by a missionary of another type, the Government Farm Demonstration Agent, who often similarly mounted, calls from farm to farm and whose mission ultimately results in spiritual betterment through improvement of material conditions. Instead of the bible, the modern messenger of the gospel of better farming carries government bulletins and a little record book, in which he enters the names of those who desire to turn over a new leaf and lead a better agricultural life."

"To get a grasp of the field agent's work I selected to visit Yell County, in the Ozark foothills of western Arkansas. There were to be found a variety of conditions; namely, the old worn-out cotton farm of the bottoms; the big plantations worked by renters, and the small hill farms with gravelly soils that demand intelligent effort to make them productive. Here is a county typical of the transformation that is going on all over the South from ancient one-man-one-horse farming to modern methods. Here is a county demonstration agent still working against odds and prejudice, but who had won the confidence of farmers and the appreciation of business men. He is P. K. Egan. His service with the Government began in 1907, with several counties under his jurisdiction. As the work grew his territory was cut down until now it is confined to one county, which alone gives him a man's job. He has fifty demonstrators working with him — that is, farmers who are growing crops under his supervision — and over 700 cooperators on his list; that is, farmers following Government instructions issued in bulletin form and sent them by mail. He also has Boys' Corn and Cotton Clubs with a total of forty-three members to look after. He makes the rounds of his fifty demonstration farmers about once in six weeks, occasionally calling on a cooperator as time allows or opportunity occurs. One-sixth of his time is devoted to the Boys' Work. This keeps him busy the year round, for after crops are matured he begins on his deep fall plowing and seed selection lessons. If a farmer, after enrolling as a demonstrator, shows no interest and makes no effort to follow instructions, his name is dropped from the list and another is substituted. There are always others eager to get help, for the work has proved its value by increasing the prosperity of the demonstrators and bringing up the price of their land. What once were classed

as almost worthless, wornout farms, have acquired double or quadruple the value given them five years ago, and farmers have quit poking fun at the Demonstration Work."

During the stress of war, the county agent in many parts of the United States became a propagandist, a campaigner, a maker of drives,—a general publicity man. This was not so bad where an agent had been on the job for several years and, therefore, had a foundation upon which to stand. It damaged the efficiency of many new agents, however. It gave them a desire to continue such methods as a steady diet. There are evidences of popular intellectual indigestion when there is so much agricultural speech-making and writing.

Improved farms with their proper and profitable crop rotations and their beautiful and prosperous live stock make the best editorial sanctums where the agent can launch his editorial and reportorial wisdom. There are so many vantage points on such farms where he can find platforms and pulpits for his lectures, speeches and sermons. Without the demonstration farms as object lessons, his talk is mere twaddle and his publicity and propaganda only "words, words, words." How unfortunate the agent who puts publicity before demonstration! It might have been unavoidable in war time, but never again. The underlying principle might be stated in a paraphrase something like this: "Seek ye first the demonstration and its lesson and all these other things shall be added unto you." This fundamental principle will apply to all general promotion and organization work which the agent may undertake to encourage and foster. The man who begins his duties as county agent by undertaking to instruct all the farming people in his county by public speeches, and by articles in the county papers, has reversed the logical order and can not get the best results. The enthusiast, who is car-

ried away with the possibilities of organization for organization's sake and who takes that as his starting point, will soon have his people enmeshed in parliamentary procedure, and their achievements along agricultural lines will be discounted in advance. It is not claimed that good results may not possibly come from extensive organization first and intensive instruction later, but this is putting the cart before the horse. Dr. Knapp told the agents never to push their plans in front of them, for, said he:

"Some will anticipate the results and be disappointed when they come. The element of surprise will be fore-stalled. Others will antagonize because they will consider the theory rather than the practice."

There are some people in every community who are ready to take issue with everything which may be offered. They can not argue against results. Lessons written upon the ground in the forms of better crops and live stock can not fail to be convincing.

In the growing of this great demonstration tree in various soils and cultivations it was to be expected that it should have many branches, grafts and suckers. There are many effects, results and consequences. Much digging, pruning and spraying will be necessary if the tree is to be healthy, and the fruit abundant and high-class. It was a natural result for the success of the demonstrators, co-operators and agents to create a general demand for organization. Those who had done the same things and done them well had a community of interest and consequently were the suitable material for organized co-operative effort. It does not follow that organization of all farmers and their policies should become an immediate project of extension authorities and field forces. There is more nebular thought afloat on the subject of agricultural organization now

than upon any other topic pertaining to farming or farm folks.

Demonstration Agents should consider three types, or steps, of organization, viz., (1) selective, (2) sentiment-forming, and (3) general. They must realize that human forces are mobile and changeable. They can not take organization as an objective and finish it with a song of satisfaction like, " 'Tis done, the great transaction's done." They will fare better if they adopt a philsophy somewhat after this fashion: Organizations may come and organizations may go, but object lessons go on forever.

The selection of the demonstrators themselves is the first and most vital piece of selective organization. This is where Gideonic wisdom is most needed. As a practical proposition, the agent must frequently call for volunteers, especially for the Boys' Farm Clubs. Then in every section or sub-division of the county he must have some counselors and supporters who advise and help. Of course most of them will be demonstrators themselves and, therefore, competent and intelligent to give aid. However, a country preacher, a physician, the county superintendent of education, a leading banker, editor or lawyer may belong to the chosen few who constitute the advisory cabinets of these agricultural reformers. This council should be expanded as interest grows. It should always be made up of members who have a vital concern in the success of the work and the welfare of the people.

The Progressive Farmer of November 1, 1919, gave this brief outline of the duties and workings of a farm council:

"The council has appointed five sub-committees, each one charged with a clearly defined share of the agricultural work of the county, and each one representative in that it includes a leading citizen from every district or beat."

"The sub-committees and their duties are, roughly, as follows: The executive committee advises directly with the agent on general matters and when the council cannot meet, acts in its stead. The marketing committee lists live stock or other farm produce to be shipped and sends the list to the county agent. This group also assists the agent in all details of handling shipments, such as weighing, grading and loading. The crop and soil improvement committee studies the cropping system and makes recommendations concerning it; studies methods of improving the soil; and is now working on a somewhat flexible system of farming for the county as a whole. The finance committee handles all general funds, as those resulting from shipping, and the publicity committee disseminates information of general value, such as outbreaks of disease, shipping dates, agricultural 'drives' and the like."

Dr. Knapp talked more about the organization of public opinion to support the work than he did about the organization of farmers. A properly organized supporting public opinion is a psychological necessity. Promiscuous organization of all the farmers of a county may be an official liability, especially to the agent who has not been on the job long enough to become established in the confidence and esteem of his constituency. Dr. Knapp said:

"Public opinion is brought into harmony and made forceful by the support of the press and the cooperation of the best farmers and leading merchants and bankers."

How futile will the efforts at general organization become if the worker can not take the first two steps!

A successful Demonstration Agent naturally wants his general and county-wide organization work to be successful. The surest and best way to do so is to make each association, club or bureau an excellent object lesson. Afterwards he may encourage the organization of similar units and by and by a county-wide federation, if conditions are favorable, but he

should understand that such is not always immediately necessary.

The type of organization which seems to be the most enduring is the selective farmers' club with a limited membership. There are several clubs of this kind in the United States which have been in existence more than fifty years. Each club has only twelve members. When a member dies or moves away the remaining eleven elect his successor. It is considered a great honor for a son to succeed his father in this club membership. Such clubs may become buying or selling associations, or they may co-operate in securing farm loans. The twelve constitute unsurpassed security. These clubs meet monthly at the home of one of the members. Thus each man is responsible for the entertainment of the entire club once a year. It is not a hardship upon anyone, because it does not come often anywhere. It is the custom for an elegant dinner, made from the products of that particular farm, to be served upon the occasion of the annual visitation.

It goes without saying that everything about the home and upon the farm is in apple pie order when the club meets there. Crops are cultivated, live stock fat and sleek, and implements and machinery in proper place and in good condition. These clubs bring in new seed and new stock. They are on the constant lookout for new ideas. Their programs are full of interest and they express themselves freely when examining the farming of their fellow member. There is something about the social, educational and the culinary features of these clubs which seem to give them cohesive power and permanence.

The very fact that membership is limited and the club exclusive seems to make people want to join. The question arises then, can the county agent, as a representative of the

nation, state and county governments, encourage such an organization? It appears undemocratic. The effect is just the opposite, however. Other clubs can be organized and they will vie with each other as to which can do the best work. It usually works out that way. Everybody, who wishes, can become a member if he will help to organize and develop a new club.

When it comes to a county agricultural federation, delegates from such clubs will constitute an intelligent working body which can do things far more successfully than a miscellaneous organization of all farmers who may be drummed up by newspaper notices, dodgers, appeals and propaganda.

All county and state associations are directly dependent upon the virility, intelligence and efficiency of the local club. Interest in them can not be kept up by speeches, lectures, or parliamentary programs. Things must be discussed and done which will be profitable and helpful. A member of such a club should be able to grow better crops and live stock and also to sell his output to better advantage and for better prices. Of course there should be a constant improvement in the farms, the homes and the folks.

Another type of general organization which the agents should encourage and foster is the special crop or live stock association; such as the Corn Growers' Association, the Alfalfa Club, the Apple Growers Club, the Sheep Growers' Association, the Hereford Club, the Bee Keepers' Association, the Milk Producers' Association, the Duroc Club, the Poland China Association and other similar aggregations. The members of these organizations have much in common and they are mutually helpful. The work they do is distinctly and specifically in line with the county agent's duties and he can well afford to aid them. They, too, constitute suitable, inter-

ested working constituencies who may properly send delegates to county meetings of farmers to undertake activities of a general nature. These county meetings, made up of chosen representatives of local groups, can take up matters of general interest to the agriculture of the county and home life of all the people. This representative body will be a good promoter of the work of the demonstration agents, as well as other progressive welfare activities.

When such county organizations are formed, they will make possible a state association of a high order. It will not be self-constituted and it will be free from politics. There is a difference between an organization and an organism. An organism has the principle of life and growth in it. An organization may not. How important, therefore, for the county agent to see that the work he does along this line has the elements of growth in it! This will not be true if organizations with indefinite purpose and indeterminate objective are pushed. It is dangerous to push any phase of extension work in an arbitrary, capricious and unpremeditated fashion. This is true to an even greater extent where it is a matter of dealing with the collective human element. It is possible to make a mistake in advice about crops and live stock and overcome it later, but an agent may start more than he can stop when he goes into the general field of organization.

There are some other types of general organizations among farmers which the agent may encourage without assuming any official responsibility for their conduct or misconduct. He may join the Grange, the Farmers' Union, the Society of Equity, the Farm Bureau and any other similar society or association and give them the greatest personal endorsement and support without committing the institutions who employ him. In this relation he is more of a co-operator. At least he is exercising

his rights as a citizen to promote a good cause. He is going outside the realm of his duty when he becomes an organizer for any of them.

The Southern Farm Journal of March, 1915, gave some good suggestions with regard to the activities of the County Agents along organization, as well as other lines:

"The County Demonstration Agent should put himself in touch with every forward movement in his county and in touch with every agency that may extend an influence for better farming and better living in his county. He should help to organize and perfect local community organization along all forward lines. He should encourage and sustain cooperative enterprises such as the various communities may be in need of, including cooperative fire insurance companies, buying and selling organizations, pure bred live stock clubs, cooperative creameries, where justified, poultry clubs, canning and general neighborhood clubs, etc. He should also interest himself in local and neighborhood societies so far as possible and, in fact, put himself in thorough touch with all the activities of his county."

"The County Demonstration Agent should plan his demonstrations in such a manner as to cover the entire county, in a strategic way, so that every farmer in the county may see and receive the benefit of his work without unnecessary trouble and travel and expense. He should have an office or place of residence in some central location, but he should at all times be accessible to farmers for advice and counsel, and spend the greater part of his time out among the farmers. He should be provided with some quick means of conveyance that will allow him to reach and advise with the largest possible number of farmers throughout the county. Otherwise his possibilities for usefulness will be unnecessarily curtailed."

"The County Demonstration Agent should thoroughly familiarize himself with the prevailing agricultural ideas and tendencies of his county and, where possible, attempt to systematize and classify the crops of the various communities in his county so that as many farmers as possible in the various communities, will raise similar crops. This is for the purpose of attracting big buyers and forcing advantageous sales. For instance, certain communities should per-

haps center on Irish potatoes, others on sweet potatoes, others on cabbage, others on onions, others on fruit, etc., with the idea of making a specialty of producing crops in sufficient quantities to attract the larger buyers on favorable terms."

The clearing house phases of the work of the Demonstration Agents are what scientific men call a constant. Chambers of commerce have their secretaries, but the farmers have not, until recently, had their headquarters. The efficient agent naturally becomes an executive secretary for the agricultural interests of the county. It was observed early in the history of the county agent that he was constantly called upon to be a commissioner of agriculture for the county. His office is a distributing center for helpful ideas, better seed and improved stock. Since the county agent has become a kind of rural free delivery of agriculture, the bulletins and circulars of the Department and the colleges reach their proper destination without such appalling waste as formerly occurred. It is getting to be the ordinary thing to find in the agent's office a classified alphabetical cabinet containing literature suitable for the conditions in that county. The agent makes special distribution at certain seasons and during special drives and campaigns.

With constant intercourse and communication on the part of this itinerant commissioner, it was to be expected that he should become a medium of exchange. That is one definition of money, but here is a medium of more value than money. A farmer started to put in an order for 25 bushels of cowpeas three hundred miles away. The agent came along and told him that his neighbor on the other side of the town had them and was anxious to sell them at a reasonable price. It has happened many times that the agent has caused the buying of good seed corn, near where it was to be grown, and at

the same time prevented the purchase and planting of unacclimated seed from long distances.

Crops new to the agriculture of a section can be introduced and brought into general use more rapidly now than was possible before the work of the county agent began. This is well illustrated by the increase of soy beans on the Atlantic seaboard, velvet beans in the South and sweet clover in the middle west. Nothing more striking occurred in the history of agriculture anywhere than the rapid improvements in the live stock of counties where the county agents conducted definite demonstrations along this line. Thoroughbred Durocs, Poland Chinas, Hampshires, Berkshires or other good hogs have become general in a county, following two or three years of good pig club work among the boys. Grade Shorthorns, Herefords or Angus have become plentiful and the total tonnage of beef and veal greatly increased by the bull associations organized and encouraged by the same agency. Whenever the demonstrators take up any phase of live stock work there are sure to be many who become good breeders, and thus make permanent contributions to the agricultural welfare of their counties and states.

Examples of the introduction of better hogs, better sheep, better horses, better poultry are to be found in the records of hundreds of demonstration agents. The evolution of the duties of these public servants has led them squarely up to the question of marketing. This is one of the big questions for the American people now. It concerns the producer, the consumer, and all who come between. A county agent who has increased production, and who has promoted wise and sensible organization, can not stop his helpful activities of co-operation even if he were to try. Whether those in charge of agricultural offices and funds will it or not, the county agent must follow

A field meeting on a lespedeza demonstration

Soy beans in a young orchard — A double demonstration

up what he has started. This does not mean that he is to sell the produce for each farmer, but it does mean that he must know how to grade and standardize the product to be sold. He must know whether to sell it in the raw state or whether to have it manufactured on the farm before offering it for sale. He must know the markets, and especially those nearest the producers concerned. Knowing these things, he must be able to get individuals and groups to demonstrate grading, packing, shipping and selling. If he has developed his work and organized his forces up to this point, he will have little difficulty in getting them to go forward to the final step in marketing the output of their farms. When one considers the definition and full meaning of the word production, he realizes that the thing is not really produced till it is marketed. To produce means to bring forward, to lead forth. The things grown on the farm should not be brought forward to the markets until they are perfected. This means that every possible step in growing, manufacturing and improving should be taken by the producer. The market problem can not be solved without the help of the county agents, both men and women, and still they can not, and must not, undertake to assume full charge and direction of it.

Much can be done in the way of keeping boys and girls on the farms, if more intelligence is used in preparing, refining and packing the things they have to sell. There is a feeling of pride in selling beautiful graded apples in nice crates, marked with the label containing the name of the farm where grown. Every member of the family takes an interest in making up and sending out attractive packages of seed when the father or son has made a reputation for breeding and growing a certain crop. Every member of a farmers' club brings honor to his county when he co-operates to ship a car of

hogs or cattle of uniform grade, class and weight. The farmer who manufactures his pigs into sausages, scrapple, lard and a few other by-products, and puts them on the market in standard uniform quality and weight, and in attractive labeled packages, can hold up his head and his price at the same time. He is at once benefitting his customers and himself. The consumer is willing to pay more for a high-class dependable product. This will apply to vegetables, fruits, field crops, butter, honey and nearly everything which the farmer has to sell. In some things he will make as much money in the processes of manufacture and marketing as he does in growing the raw material. If there are three profits here, the farmers and their families had better use more intelligence and skill in order to get the second one. It may take a year or two to grow a crop or an animal. It is prepared for market in a short while. If the county agents can give wise direction and guidance to the second operation they will contribute much to the building up of country life. While they must not neglect the lines of work which they have developed thus far, it is manifest that they must grapple with the problem of standardization primarily, and then marketing for the next few years. It is a mistake to say the farmer's work is only one of production in the ordinary use of that word.

The evolution of extension work and the development of farming call for more and more business training of the agents. A good background of business experience will avail much for the agent who has to deal with the best farmers, merchants, bankers and others. The man who can simplify farm bookkeeping and get farmers to change their habits in this line will be a wonder. A knowledge of the fundamental principles of economics will often enable him to size up situations and judge

tendencies. He will be able to give timely advice which will often be profitable to all of his people. Many students in colleges now have seen this trend and are preparing themselves accordingly.

The active progressive county agents realize they are developing a great system of educational work. They should know that they are pioneering and that the work they are doing will be helpful to their successors for hundreds of years. Their records contain much material which will grow in value with the passing of the years. The weekly field report of Robert F. Waters, of Love County, Oklahoma, of January 3d, 1919, gives a good idea of the varied and helpful nature of the work of county agents in general:

Monday — My work for the day was confined largely to my office. I did a lot of regular routine office work, besides some that might be easily classed special in that it was out of the ordinary. I have reference to some correspondence with a little girl in the Eastman community in regard to helping her secure one of the pretty little Holstein calves which are so frequently advertised in our farm papers. This little girl is a hustling member of my calf club, and became intensely interested after I had visited the boys and girls in the interest of club work. This sort of interest and initiative in only a little child is enough to stimulate and encourage any one, and I am glad of the opportunity to report that this little club member, on the strength of her own initiative and forethought, will soon be the proud possessor of a Holstein calf.

Tuesday — In the early part of the morning I had a consultation with Mr. Hartman. He wanted to pay outright for the Poland China gilt which his son, Arthur, received on the E. C. P. I was really glad to allow him this privilege. Mr. Thurman of near Rubottom asked to be allowed to pay for his gilt. I allowed him to do so. I have decided to give all of the other boys, 33 in number, the same privilege. This will lift quite a burden from me, and will be just as good as selling the increase at auction, and will be a much faster way of settling matters.

WEDNESDAY — I was interpreter among a bunch of Mexicans for the census enumerator. Here we had quite a little fun.

THURSDAY — I wrote several letters, one in particular, to Mr. S. Herrington, placement officer, Okla. City, in regard to Tom S. Gardiner, a soldier who has proliferate anthritis (dead bone.) I am trying to secure free training for this boy, and I feel sure I will be able to do so.

FRIDAY — Wrote some letters, one to the Central Scientific Company, sending warrant for a farm level which I purchased some time ago. The money with which this purchase was made was given to me by our county commissioners. These commissioners have never denied me yet.

SATURDAY — A gentleman called to see me this morning and asked me to come out and survey his land. The other day I was called to show a man how to butcher a hog. A third man wanted me to visit his place and take a bloody wart off the leg of one of his horses. The county agent, I have observed, must be a utility man, so to speak. He must be a cosmopolitan, sort of a Dr. Jekyl and Mr. Hyde. He must be a civil engineer, mechanical engineer, orator, teacher, preacher, Sunday school superintendent, veterinary surgeon, entomologist, queen expert, politician, bookkeeper, lawyer, importer, exporter, auctioneer, financier, (to get by), statistician, economist, landscape gardner, farmer, and Ford mechanic. The county agent must render service in all the above callings in a rundown hard-to-crank tin Lizzie. The county agent has a cinch."

Thus it will appear that this worker has wonderful opportunities to stimulate the agricultural and economic life of the county. He may be a strong moral force. He should certainly be a great co-ordinator. He sustains a vital relation to the schools and is instrumental in connecting them closer with the life of the people. He brings the city closer to the country and causes greater harmony between them. He is a publicist of the highest order. He is a booster for the best in our civilization and when he has been on the job for a hundred years, this will be a better country because of his ministrations.

CHAPTER VI

SOME QUALIFICATIONS OF THE WOMAN COUNTY AGENT

IN outlining the qualifications of the woman county agent it must be borne in mind that this is a new and developing work. It is only ten years old. A decade is a short time in the history of any educational movement. Perhaps a hundred years may elapse before the novelty and freshness wear away. Because this method of work has so much action in it, and because it reaches the fundamentals of civilization so vitally, it should never crystallize nor institutionalize to the extent which other methods and processes of education have done.

The Home Demonstration Handbook, issued by the Georgia College of Agriculture in 1920, says:

"Home Demonstration Work has come to be a comprehensive system of education for rural home makers. Its object is the fullest and finest development of women and girls through the use of all the many resources of the farm home and farm community. Its chief means of realizing these aims is the initiative aroused by 'the demonstration' which the individual makes as an object lesson for her family and community."

While the Extension Act was intended primarily for rural people, there has been much home demonstration work done in urban communities also.

It should be noted further that there is some overlapping of the qualifications and duties of the Farm Demonstration Agents and those of the Home Demonstration Agents. The

woman county agent must do and be many of the things heretofore outlined under the Farm Demonstration Work and vice versa. In some cases the woman agent has promoted enough of the farm work to create a demand for a man agent. It nearly always happens that an aggressive man agent starts enough interest in Club Work among the girls to create a demand for a woman co-agent. As these phases of work develop it is significant to note how they mutually support and supplement each other. It can be seen already that there will be no serious conflict in jurisdiction or function. As a general proposition, the man agent will be responsible for demonstrations on the farm at large while the woman agent directs her drive at the farmstead; that is, the home and its immediate environment. It is not claimed that she should direct all the activities around the farm home. On some farms the dairy or the orchard may be the main interest and the principal source of revenue. Certain phases of live stock work are handled on the farmstead. In such cases the instruction will be given by the farm agent, but on the average farm, where only a few cows are kept to supply the family with milk and butter, and where the orchard is of ordinary home proportions, the Home Demonstration Agent catches the responsibility. In fact, on most of the best managed farms, the woman does the planning of the garden, poultry yard, orchard and lawn. She does the reading and studying necessary to direct all of these operations. Of course she must have help in the heavy manual labor necessary to the promotion of these things, but she does the head work. If the whole layout of the farmstead is to be harmonious and beautiful then there must be a guiding force with taste, judgment and perseverance.

The man who manages the farm can give only occasional and spasmodic attention to the farmstead. Of course he can

give valuable co-operation at these times, but with him it can not be a matter of continued thought and care. Likewise the man agent may help and encourage the demonstrations in the immediate environment of the home, but he can not make them his larger interest, because the demonstrations of field, feed lots, pasture and forest constantly call him. In the growth of the demonstration system of education both phases have converged somewhat to the home. That should suggest co-operation in the enterprises which present the crowning features of the development. Where different members of the family have been doing different lines of work for several years, everybody is ready for demonstrations of an advanced nature and a high order. In such cases the men and women agents have conferred and agreed upon plans for the building of attractive farm homes and the landscaping of the grounds. Wherever such demonstrations are begun each agent inspects and encourages whenever possible. In this way the problem is worked out with reference to the whole farm and its products. The farmstead is beautiful as a whole and not simply in front of the dwelling. Trees and shrubbery are necessary in front of the barns and outbuildings, as well as upon the lawn or front yard. The lines of work of the two agents run parallel in the main, but converge at the apex. There can be no conflict or antagonism where each agent has thoroughly developed one line to the focusing point.

The Home Demonstration Agents who helped to found and establish this work were heroic and devoted pioneers. Many of them worked for small salaries paid for only three or four months in the year. They were helping girls and women for twelve months. They were on duty and gave aid at all times. The more beautiful and more efficient homes of the future will become increasing tributes and memorials to them

and their work. In many cases, without degrees in domestic science or home economics, they set standards and established results which have become precedents and guiding stars for their successors, who enjoyed better college and university training along these special lines. Their singleness of purpose and their thoroughness in execution made success more certain. New agents with more elaborate training are in constant danger of trying to teach too many things at once. There is no limit to the amount of knowledge they may seek for themselves, but there is some limit to the amount they should try to impress at a given time and upon a certain situation. They should never forget the idea of "one thing at a time and that done well." This is necessary for their success.

These forerunners in this missionary educational endeavor have created a demand for specialists and shown them where they can help. They have stimulated research and experiments in the field of home science, and the colleges and Department will have to establish experiment stations and research laboratories in home economics just as they have in agriculture. In order to illustrate and drive home a few definite, scientific truths, it is necessary for these agents to be fully fortified by research and test.

It will be a healthy development to see actual practice demanding more truth and facts from science for immediate utility. In agriculture much work was done at the colleges and experiment stations before the results found general application and use by the masses of farmers. In home economics the demand from the field is liable to accelerate the research at the colleges and universities. Home Demonstration Agents are thus bringing about changes which are destined to advance civilization. High honor to the faithful and unselfish workers who led the way! The tributes to their service should

be abundant and the praise of their devotion unstinted. Their co-operation with all uplifting forces has been cordial and effective. These indeed are the co-agents.

Many different workers in widely scattered fields have labored together to give character and fix standards of qualifications of the Home Demonstration Agent. While all of them started with the same simple, definite piece of work at first, each one had opportunity to develop the expansion of it under her particular conditions. When an observing woman saw that conditions in her county were not the best for growing tomatoes because of wilt or drought, but that there were great possibilities for poultry, she turned the plant work into the growing of poultry feed and made the production of high-class chickens and eggs the main work of the club members. It was noticed that several agents in different states began egg circle work about the same time and in the same way. In like manner scores of them took up beans, pimientos, okra, berries, guavas and other vegetables and fruits after their girls had mastered the tomato. In this way those who were making plans and programs were able to observe trends and tendencies by studying the operations in the field and the reports of the county women agents.

It confirmed the observation, already made in the farm demonstration work, that the principles and processes of the demonstration system of individual and mass training were applicable in every clime and under all conditions. It works well among the wealthy because they are able to make excellent object lessons. It suits the poor because their good examples are inspiring and uplifting. It becomes the intelligent because they can use their trained powers in perfecting the demonstrations, and it is proper for the ignorant because in the doing of it they must gain knowledge and ability.

The efficient and faithful agents and directors in the Demonstration Work have, in their own official conduct and reports, established standards of duty and qualifications which will influence thousands of those who succeed them in the ages to come. This is true in all lines of the farm and home demonstration work. They considered it their first duty to help, rather than instruct.

The woman county agent should be a coach, trainer and guide. Football and baseball coaches are teachers worth while, and there is much pedagogy in their work which educators generally might study with profit. They select the men for the respective positions and they stay by each man until he masters his job. When the real public performance takes place the coach may not be in sight, but the evidences of his training are plainly visible to all those who at all understand the game. This is true in the Club Work done by the girls, and the object lessons in home making conducted by the women. The community may not know how much coaching an agent may do with the individuals and with groups of individuals, but by and by it will see the effects thereof. In an organization of more than 1,000 women workers, many of whom were public school teachers, it is difficult for all of them to see the importance of training. They naturally want to talk about teaching, instruction, forming classes and giving lessons. They do not all seem to realize that training is more important than teaching. It is not enough to tell or to teach, but it is necessary to see that the person being taught is able to do the thing. In this plan of procedure, the demonstrator becomes the teacher and furnishes the object lessons. Solomon said: "Train up the child in the way that he should go." He did not say teach. The animal trainer knows that it takes persistence and perseverance to drill the brute mind until it can

do a few things in a certain way. If careful training will get results in such cases, surely we should be able to train superior human intellects so that they can teach others. One woman can increase the efficiency of a hundred women and as many girls, by guiding them along definite paths. She changes the life of the whole county by directing a limited number. She must keep her ideal in mind and work towards it at all times. The people will see it in the gradual unfolding. A person who has only a day or two to spend in a large city realizes the importance of the work that a guide does. Many agents have guided the home activities of a whole county in a still more effective way.

A Rhodes scholar, from the Union of South Africa, spent a year in this country studying agricultural organization and development. He grew ten acres of cotton and took part in all phases of work necessary to produce and harvest it. He observed that a fourteen year old negro boy could hoe three or four rows to his one and pick two hundred pounds to his fifty. He came to the conclusion, that in order to succeed with this crop in his country, that it would be necessary to transport enough negroes from the cotton fields of the South to establish a cotton farm every few miles and have a system of supervisory directors to guide and train the workers. He said that even the ignorant field hands in this country had absorbed a lot of knowledge and skill from their environment. He shrank from the task of teaching thirty million negroes in Africa to grow cotton by any dogmatic or academic process.

This same Oxford athlete was favorably impressed with the American game of baseball and wondered whether he might not take it back to the young men of his country. He thought he might buy books of instructions for all the boys on the teams and have them study the rules in school, and then

play the game on the diamond. He was told that such would be a long, tedious and complicated process. The thing to do is to select nine husky boys on each side and let one crew go to bat in order, and the other into the field, in the respective places of catcher, pitcher, first baseman and so on around. They learn to play by playing. Of course the Oxford man, with his knowledge gained here, would have to do some general coaching, but he could keep the game going. When that stage is reached the boys could begin to learn from the book of instructions. They would have the interest and the desire. Under such conditions it is not difficult to impart knowledge. The analogy holds for all forms of group training and mass instruction. Just to the extent that Demonstration Agents appreciate the philosophy of such method just to that extent will they become masters of the situation, and multiply their usefulness.

A good woman county agent must be a gardener, orchardist and farmer. The gardening side has been thoroughly impressed upon the public mind, because, for several years in the early days, there were more than a hundred thousand girls a year working with one or more vegetables. Gardens have been stimulated everywhere because groups of girls started the study and production of one vegetable. Many of these agents realize the importance of this phase of the work because they have selected their own 1-10 or 1-20 acre plots and conducted their own work in advance of the girls. As they progress with the second, third and fourth year girls they specialize on two, three and four vegetables. They carry the public along with them. They must learn methods of canning, preserving and jelly making which enable them and their demonstrators to utilize the surplus fruits of the gardens and orchards. Thus it is that they study small fruits, and they are also called upon to give advice in pruning, spraying and other-

wise managing new and neglected orchards in their counties. While there may be a great many agents who do not have the advantage of proper preparation along these lines, it is certainly gratifying that they are anticipating the needs of the work and are constantly keeping ahead in their private study, short courses, reading and correspondence.

There may be horticulturists who love plants, but do not care so much for folks, but this is a person who must be fond of both. Furthermore, she must able to inspire a love of vegetables, flowers and trees. It is a very important qualification in the Club Work to give the members a love of nature and plants. After this is done it is a simple matter to teach the fundamentals of horticulture and agriculture. The Demonstration Agents have a great opportunity and mission to give purpose, enthusiasm and direction to the teaching of these things in the schools. There is so much abstraction, not to say aloofness, in the practice of teaching such subjects from text books in class rooms, that interest and vitality are greatly weakened. When a growing child studies a growing plant and strives to make something out of it, the results, both direct and indirect, are sure to be good. Teachers cannot cooperate fully and successfully with agents in Club Work without visiting the gardens and homes of the Club members. When a teacher makes such a visit she is sure to commend and help. She immediately increases her influence and usefulness. She must increase her knowledge also, if she is to continue to encourage and aid the girls who are doing progressive work. No wonder that so many teachers look upon the county agents as their special helpers and as benefactors to the schools. When rural school teachers are employed for twelve months in the year, and when each one becomes an assistant Home Demonstration

Agent, our whole educational system will be reformed and vitalized.

While there is usually a man agent in every county where there is a woman agent, and he is expected to give advice and help in general farming, at the same time, the woman agent enhances her value and standing in the community if she is able to answer questions occasionally with regard to staple farm crops. A general knowledge of agriculture is an important part of her equipment. There are some women agents in the service who own farms of their own and who direct the operation of them successfully. It has been observed often that such agents have an unusually strong and forceful influence among their people. Their associates and demonstrators have a most wholesome respect for them because they are doers, and not talkers only. There seems to be an impelling desire on the part of these agents, whose main work is to get other people to do things, to put them into practice for themselves Many of them are making investments in the line of their work and they are proving that they can make profits out of their own advice.

The woman home demonstration agent must be an excellent cook, a high-class seamstress and a scientific dietitian. There are no qualifications of a woman county agent more important than cooking. Many an agent has gained standing and prestige by being able to prepare simple, nutritious foods in the most practical and helpful way.

It has been a great achievement to arouse so much interest in cooking and to teach so much about it without announcing such purpose, and without direct and dogmatic methods of approach. It was wise to call it canning, and to begin with the girls, but how could they do all this work with vegetables, fruits and meats without learning how to cook them? This

plan of procedure, not only caused them to learn what the agent had to impart, but it caused a general discussion and exchange of methods of cooking among the mothers and neighbors of the club members.

When a girl has a pantry full of preserves, jellies, jams, relishes, chutneys and macedoines and other good things, it is a wonderful opportunity for the agent to have some demonstrations made in the cooking of healthful, appetizing meals. This is all the more true since the club members and demonstrators have been canning poultry, beef, pork, and other meats. They utilize all the available food material on the farm in their program of work, so that improved methods of cooking are constantly under consideration.

Just as in the gardening and farming work, there is a strong disposition on the part of the agents to practice what they preach in the canning and cooking. This probably accounts for the fact that a large number of home demonstration agents get married every year. It is a loss to the work, of course, but not a total loss for they soon make homes which are conspicious and helpful object lessons of the very things which they have been promoting.

It will always be of more than passing interest to watch the careers of the agents and club members who take their knowledge and experience into commercial lines of work. Some have already established tea rooms, preserving kitchens and food shops of various kinds and with marked success. The next few years will doubtless wtiness marked development in such activities. The opportunities for financial profit are excellent and the field of service is large. In fact it is a call to duty, because of the great general need of reform in matters pertaining to the preparation and serving of food.

Ofttimes the men and boys see the importance of the Home Demonstration work when the agent uses an improved utensil or device to prepare a meal with a minumum of time and labor. Many times valuable demonstrations in cooking have been given which meant much to the over-worked housewife

All Girls' Club members are supposed to make their uniform caps, aprons, and dresses. They also make cup towels, work bags, table sets, hats, and many other articles which increase the usefulness of their work. How much help, therefore, can the agent give if she is an expert in sewing! By beginning with these things the way is opened for further work along millinery and dressmaking lines. She does not become a routine instructor of such things, but she stimulates and promotes activity in them.

For the first decade of the Home Demonstration Work, more attention was given to food than any other subject. Agents were called upon to make suggestions for the diet of healthy people and also for those who were sick. Doubtless, numerous lives have been saved by these devoted women in their capacity of dietitians. In this way people are constantly learning more of food values. What a great thing to get the public to know how to feed itself!

The woman county agent should be a good carpenter, cabinet maker and tinner. Every year's reports show that more than 10,000 fireless cookers, 3,000 iceless refrigerators, 10,000 fly traps, 500 wheel trays, 500 ironing boards and 500 kitchen cabinets are made as part of the home demonstration program. The first models and examples of these things are made by the agents themselves. Skill in the manufacture of them has improved the standing of many a woman in her community and county. Some of these things and other time and labor saving devices, which are now being made, indicate

Making a fireless cooker

Club members making equipment for bee work

that these agents are more than ordinary carpenters. They are actually becoming first class cabinet workers. In keeping thousands of outfits in shape and in soldering millions of cans, we are not surprised that these women are excellent tinners. They are adepts in this trade or occupation, not only because of this experience, but because of the experience that they have had in keeping their most popular vehicle of transportation in repair. It is a compliment to their ability and resourcefulness that they do not get discouraged when they get stuck in the mud, — they always manage to get out and get to their appointments. Their mechanical ability is something marvelous.

Perhaps there has been nothing in the evolution of the duties and activities of the Home Demonstration Agents which has commanded more general respect than their independence and ingenuity in the discharge of their daily duties. An Alabama agent was going to an appointment in her automobile when she came to a tree which had been blown across the road. There was no chance to get around it because of the woods. She remembered that she had just crossed a bridge with loose planks in it, so she backed up to the bridge and loaded on four of these boards. She then moved forward to the tree and placed two of the boards on each side with the ends resting on the top of the log and on the ground respectively. She then drove up the inclined plane and down on the other side. After replacing the planks on the bridge she went on to her meeting, conscious of a victory over material things, and confident of her ability to lead the people who had assembled there.

A new agent travelling, late in the day in Oklahoma, accidentally lost her way and got into a farm road which led into a long narrow lane with a wire fence on each side. After

going about two miles she came to a gate which was locked. She soon realized that she was up against a difficult situation. It was growing dark. Even if she succeeded in turning around and driving out of the lane she was not sure she could get into the public road again. She hurriedly looked the situation over. Naturally she thought of the pliers in the tool box, for they had helped her out many times when her machine had refused to run. She got out the pliers and cut the barbed wire fence from the post which held the lock and chain. Then she worked that post loose and lifted it out of the ground. Of course it was an easy matter then to swing the gate around on its hinges. But just at that time she looked up and saw a man approaching. It was the farmer who owned the gate. She hastened to explain her mission and to apologize for the apparent field burglary. He laughed heartily and told her to come to his house for the night, because he wanted his wife and daughters to know a woman with self-reliance and practical ability which she had displayed. It is almost needless to say that she enrolled some club members and demonstrators who did good work. She also made some friends and admirers who were always glad to aid her.

The woman agent must be a nurse, sanitarian and health officer. In ordinary epidemics and in many special cases the Home Demonstration Agent gets opportunities to show leadership. Sometimes she must act as a nurse and organize untrained people to become temporary nurses. If work of this kind had not been done during the influenza epidemic many communities could not have met the emergency with any degree of success.

The following is a good example of relief work done under the guidance of the woman agents: When the flu struck Richmond County, Georgia, in October, 1918, the authorities

asked the Home Demonstration Agent to organize the fight against it. She and her assistant began at once to look for buildings which would accomodate several thousand patients, for there were many regiments of soldiers camped near Augusta, the county seat, as well as a large city population to care for. They selected the buildings on the Georgia-South Carolina Fair grounds. The live stock barn was to be the main hospital. It had large windows, three wings, a rotunda, and dirt floors. Soon the advice and help of a physician and a nurse were secured. Then they proceeded to select and plan different departments. The county agent described the situation as follows:

"Stalls (where prize cows and horses were kept last fall) were chosen this fall for drug rooms, linen closets, supply rooms, nurses' and helpers' quarters. The rotunda was chosen for the office, as it had a post in the center from which a light could be suspended and a telephone could be installed. The heads of each department were notified to be ready for patients by noon on the following day. We saw at once that help was the next thing needed, so there was a call meeting of the public school teachers. The president of the Board of Health explained the situation to them, and asked that each would volunteer for some particular line of work, such as nursing, kitchen, or cleaning, and go with us to the fair grounds for work. In a few hours, physicians, nurses, dietitians, art teachers, music teachers, society girls, bookkeepers, carpenters, plumbers, etc., were all hammering, painting, sweeping, raking and digging and shoveling in the live stock building. Those who were formerly teachers of art and music were busily engaged in white-washing Daisy's stall, while other dainty white hands, nearby, were washing windows, and raking out stalls. In the gallery there were carpenters and plumbers putting in shelves, installing sinks and making water connections, tacking up tar paper to screen off a diet kitchen and serving room. On the first floor just beneath this were workmen placing a stove that had been used at Camp Hancock to accommodate the patients who had pneumonia and influenza.

"The Superintendent of Schools offered the equipment for the

kitchen from the domestic science department, and in a few hours time the city worker and I had secured trucks from firms in Augusta and carried all of the equipment from the Home Demonstration kitchen and from the school out to our new hospital. The helpers placed the equipment and in the meantime I went to town in a truck and loaded up with a supply of groceries. I visited the milk supply companies, the meat houses, and other places, to make arrangements for regular orders.

"By the next day at noon the departments were beginning to be organized and I was acting as one of the dietitians and in charge of purchasing and planning for both kitchens. Miss McAlpine was first assistant in the diet kitchen. Miss Eve, a domestic science teacher of Augusta, took charge of the nurses' kitchen, and then we had a stall in which all dishes were sterilized. I appointed four of the teachers to do that, as they could alternate, two for each day. There were numbers of young teachers who helped in each department. I had some to assist in dishwashing and other duties who had never found it necessary to know an ice pick from the refrigerator; but they made one bold effort and rendered splendid services.

"As true as his word, the director had the patients brought in at noon on the following day. A Red Cross ambulance, with stretchers and physicians and men to lift out the patients, rolled up at the once-called barn, but then a lovely hospital. Every worker had been notified to wear masks, aprons and caps. This was a scene that looked like Hallowe'en night, when the first patient was brought in. From every corner of the building you could see figures draped in hospital aprons, white caps and flu masks. Their eyes were the only features that could be seen. We all had a peculiar feeling when we realized that we were actually in the building with the flu all around us. All before this there was laughter to be heard above the sawing and hammering of the workmen, but not a sound after the first visit of the ambulance, except an occasional groan of the patients.

"This peculiar feeling soon left all the kitchen workers, for an order came from the house physician for three kinds of diets, liquid, soft and regular, besides milk formulas to be prepared for the sick. From the nurses' kitchen there was to be served a supper

for forty people and we had only a short time in which to get it ready. Every man was at his post and this meal was served on time."

It is scarcely necessary to say that this well organized, systematic institution relieved suffering and saved many lives. Patients poured in until the epidemic subsided. Refreshing and sustaining foods were sent into hundreds of homes where the stricken and suffering ones were unable to get to the hospital. The work done by this enterprising and resourceful agent was appreciated by these people. She demonstrated superior organizing and administrative abilities. Increased prestige was given to the work. Similar service was rendered in many other counties. In some there was no hospital, but the agents called for volunteers, organized them and proceeded upon their mission of relief.

Home Demonstration Agents also prevent disease by organizing clean-up campaigns to get the people to destroy flies early in the season. These apostles of sanitation have an important message and a large responsibility. While there is no conflict with the work of physicians, the Home Demonstration Agents can, and do have much influence as visitors and inspectors. They have the confidence of their people and their thoughtful suggestions are followed more readily than official orders. A bright, observing woman traveling into the homes does not have to carry a badge of authority to influence the people in clean-up campaigns and also in fighting epidemics of contagious diseases.

While it might not yet be a standard requirement, it is good if the woman agent is a chorist, a gymnast and an all round recreationist. There is so much of group or mass work, that is incidental or necessary, that a person who can lead songs and yells has quite an advantage. In the meetings of instruction and in the drill camps, much time is saved and

much enthusiam aroused by concerted action. The same principle is involved in the light calisthenic exercises and in the games which the club members so greatly enjoy. The demonstration agents should have expert knowledge of the whole matter of recreation because their work deals with nature. People who think constantly about vegetables, fruits, pigs, lambs, calves, chickens, the soil and the great out-of-doors, should be experts in showing the people the way to renewed life and energy.

The woman county agent must be an ambassador, a diplomat, and a financier. She is an ambassador extraordinary, and she ministers potentially to the greatest institution on earth, viz., the home. In a few years there will be several thousand of these extraordinary ministers in the domestic service. It requires a high order of diplomacy to get women to improve their own condition and environment by impressing upon them the importance and dignity of the situation in which they are to help somebody else. Even in poorly kept homes it is possible to have demonstrations conducted upon the appeal that the object lesson will aid the neighbors. It is easy enough to approach those who have the desire and ambition for improvement, but it is difficult to reach the ignorant, illiterate and prejudiced. These women agents have managed to get into such homes and bring about changes along the lines of sanitation and beautification which other agencies have been powerless to reach. It is doubtful whether any other educational workers have situations requiring more tact and judgment. No other workers reach so far and so effectively. These agents have to be good financial managers in the conduct of their own work because, oftentimes, they have to convince county commissioners, fiscal courts, boards of education and revenue of the wisdom of expending money to

promote their own activities. They line up bankers, merchants and public-spirited men and women generally to contribute their money to help with prizes, scholarships and equipment. These are all worth while, but the lessons of thrift and economy they have been impressing upon the members of the clubs, who have saved money from the sale of their products, and who have started their bank accounts, is an even greater achievement in finance. There are many cases of club members who save four or five hundred dollars each in their four years of club work. It is excellent for the county agent to show them that, by careful management and good stewardship, they can double this money every few years. Under the interest rates that have been prevailing in the country recently it would double itself in ten or twelve years. With good management it should double itself in half that time. If these club members use their accumulations of four years in such a way as to double it in every six years by compound interest, until they are fifty years of age, they will be worth more than twenty-five thousand dollars each by that time. A great many people live to be fifty years of age without being worth that much. It is quite necessary to impress lessons of thrift and economy upon these club members at the time in life when it will be worth most to them. Of course the training, and the ability to earn and achieve, is worth more than compounding finances, but at the same time, there are some important lessons, about the saving of money, and the proper stewardship of it, which have been sadly neglected in certain sections. A thousand women working along these lines will not only change sentiment, but will change practices Such work emphasizes the meaning of the word economics. In the early days of Greece the men were warriors and the women managed the homesteads and made the living for the families.

The word economics means home management. The Grecian housewives were so frugal and thrifty that our language borrowed their word in order to convey such meaning, not only in household affairs, but in the management of affairs of communities, states and nations as well. From the standpoint of derivation it is superfluous to put the word home before economics for then we repeat and say home, home management.

The very success of the club work, with its ever increasing demonstrations in production, has added to the duties of the promoter and called for additional qualifications. While she has been growing and conserving products she has been automatically opening up marketing questions. Marketing calls for more organizing and financial ability. Each Club member must carry her own responsibility, develop her own standards and make her own reputation, but the agent must see that these things are done. Just as soon as several get started well in putting up the same product, the agent can unify their efforts and output, and get them in touch with the trade. It will not be long before they will have their own co-operative association, with its officers and managers, who will take charge and handle all details. This relieves the agent of handling other people's money and keeps her hands free for other new tasks. Local markets are worked first. The effect is good. If the buyer knows the seller and is acquainted with the attractive home and well managed farm, where the products are grown and put up, it makes for satisfactory business relationships. Home Demonstration Agents have shown their value in a business way by enabling the club members to reach the consumers right in their own counties first. In order to do this it was necessary to overcome difficulties and prejudices. Just as fast as the producers put up standard

goods of sterling quality and backed by persistent honesty, just so soon will the machinery of marketing get into satisfactory operation in any community.

After an agent gets a large number of club members and co-operators putting up quantities of a uniform product she may have to direct their activities in finding wholesale markets. This has happened many times recently in the poultry work in shipping carloads of chickens and turkeys. The agent gave the most careful instructions for all the preliminary details, so that when the day arrived for the actual assembling, loading and shipping, the business was all handled by the officers and members of the organization. They also looked after the collecting of the money and the proper distribution of it. Similar financial and managing ability has been displayed in egg circle work and in the marketing of large quantities of canned products, preserves, jams, jellies and other things good to eat and use. As these lines of high-class production and business-like marketing are perfected and practiced more extensively, people will learn that it is not necessary to crowd into the cities in order to earn money in standardized manufacturing. The opportunities, for making good profits in finished products on the farm, are constantly enlarging.

The woman county agent must have some of the qualifications that are found in the best missionaries, colporters and pastors. It has been remarked many times that the success of the Demonstration Work has been mainly due to the missionary spirit of the agents. It will be fortunate if these now in this work and their successors will always appreciate and encourage the value of the spirit of service.

When the club members and the demonstrators realize their need for knowledge along certain lines and manifest

their desire for it, the printed page has some power, but the miscellaneous distribution of Government publications has been a great waste of the peoples money. The distribution of tracts by a colporter is a more direct method of approach than the ordinary use of mailing lists. This same method of finding points of contact by the itinerant agent has given a personal hold and established a kind of leadership that is human and powerful. Thousands of instances are reported in which the girls and their mothers look to the agent for guidance in other matters than gardening, canning and preserving. Not long since an agent reported a case of a crippled girl who had earned enough money, through her garden, to have an important operation performed, so that she might be able to walk like the other girls during the rest of her life. The county agent went with her to the hospital, held her hand when she passed into sleep and was the first person into whose face the little club member looked when the trying ordeal was over. Surely an affectionate devotion was enhanced here and a relation was established, in that community, which caused the agent to become a social and moral factor of a high order.

As this work develops and expands, the woman county agent gets more and more opportunities for service. At the same time, with the experience and study, the standards of her qualifications will become higher and higher. By and by she will be a florist, an architect and an artist. Already a great many of them, with their knowledge of plants and their skill in the growing of them, have started girls on the way to become successful florists. A few years ago practically none of them knew that there are hundreds of opportunities in this country to make a good livelihood selling flowers. As a result of the training being given by the agents, many of these

girls will not only take advantage of opportunities to establish preserving kitchens and pure food shops of various kinds, but they will take charge of the flower stores and gardens. Better still, they will learn flowers and make their homes attractive. It is an interesting development, in the evolution of the Demonstration Work, that many of the agents have already been called upon to suggest plans for building farm homes. They have been called upon, too, to suggest proper arrangement for farm kitchens. This has caused numbers of them to study the fundamental principles of architecture. The converging of so many minds on household devices and conveniences naturally develops ingenuity and inventive power. The whole field of architceture for the farm home is being opened up more and more. The young women in colleges, now who are preparing themselves for such service as this, will do well to study the tendencies, as well as the actual recorded results. Having begun the work with the daughter in the garden, and having conducted canning on the lawn and in the backyards, the agents have guided and directed the activities through the kitchens, pantries, dining rooms and the home in general. They have made constant suggestions about equipment, including screening, furniture and water works until they have come fully to the question of beautification. The sixteen and eighteen year old girls, who have been in the club for four years, are anxious to take the advice of the agents with regard to the pictures in the homes, flowers, and shrubs and trees on the lawn. Thus the woman county agent must know the elementary principles of art. They are being called upon every day to enunciate such principles and to utilize them. And it has come about in the evolution of this great organization that the woman county agent is called upon for advice and help in everything that

pertains to the home and its environment, just as the successful man agent is called upon in all matters pertaining to the farm and its management.

This, therefore, is a new and wonderful contribution to education and civilization, which has been made by American women in the early years of the 20th Century.

Director Symons, of Maryland, in his 1919 report says:

"Home Demonstration Work stands today as the biggest piece of educational work that women have ever attempted to do. There are no limitations to the duties of a home maker, and it is only by education in the science of home making that home problems can be made easier.

"The war brought an unusual change in our home conditions, and the average home maker was forced to become educated along the lines of health, food, thrift and sanitation. The trained Home Demonstration Agent was naturally best suited to give information and assistance in these problems. She was called upon to advise and help in every phase of home making, from renovating old clothes to the proper food for the baby. She was expected to teach the art of soap making as well as that of preparing apple jellies. There is no other profession that calls for such varied lines of work as does that of home making. Home making is referred to as a profession, and that is just what it is. There is no art of which a girl should feel more proud of being accomplished in, than the art of home making."

They have established standards of performance which will call for close application and zealous persevering work by their successors, but the new day is calling for new achievements by women and these have not failed to answer the call. So many of them have visions of the future possibilities and zeal to carry out their own fond hopes. Their realizations, in this age of science and invention, actually reach beyond the ideals and dreams of the seers of the last decade. President Bryan, of the Washington Agricultural College outlined the objective of the Home Demonstration Work in an

Demonstration in kitchen arrangement

A state fair demonstration exhibit showing how the club girls improve their own rooms

address about ten years ago, when he was discussing another subject. Doubtless he would amend it now by substituting a high powered automobile for the carriage and horses, but still the description of the country home and its environment is worthy of study by the women and girls who hope to be demonstrators in home making. He spoke in part as follows:

"The cotter can produce a more beautiful tree, if he loves it, than the millionaire can require his hired slave to produce. Roses and honeysuckles and the old-fashioned pink are democratic. The rudest home on the rocks out there may be a very bower of beauty. Your gospel comes to the rich man hard pressed with business cares, and bids him find a new source of rest and joy. It comes to the poor man bowed down under severe daily toil and teaches the same lesson. It gives to both a truer conception of life and happiness. The merchant prince with stately mansion richly furnished; driven to his business in a shining carriage drawn by glossy horses, liveried coachman on the boot, is an object of envy. How about this farmer prince whom I am about to describe A cosy white cottage embowered in roses in the midst of a pretty yard. The cottage is clean and simple within and there are evidences of a love of books and music and art. In the meadow sleek and stately cattle drink at the limpid brook. Young lambkins skip from bank to bank or troop away to their bleating dams. The young corn is full of sap and grew so much last night that you can begin to hear the rustle of the rich dark green leaves. The cherry trees are reddening in the orchard and you can hear the quarrel of the woodpeckers over the first ripe cherries. The sweet smell of the red clover comes floating over the field and you can hear the hum of the bees at their joyous task. The farmer is hitching a pair of strong, contented horses to the mowing machine, for the clover must be cut today. His brow is not so drawn as that of the merchant prince, and he is whistling to himself in an undertone. Why should not he also be envied, and is this life less wholesome and worthy than that? Maybe, after all, he would not be willing to exchange all with the merchant prince."

CHAPTER VII

SUPERVISION, INSTRUCTION AND SUPPORT

TITLES and definitions in the Demonstration Work are of supreme importance because they indicate the motive and method of it. The working system is based upon the doer rather than upon the thing done. The human element is more important than crops, soils or farm animals. It is active, vital and animate. Thus demonstrator, agent and club member are more valuable terms than agronomy, animal husbandry and entomology, however interesting and necessary they may be in academic teaching. An agent may have degrees in agriculture or home economics and still be unable to secure impressive demonstrations in these subjects. Ability as a trainer and influence as a leader of the mass are the prime requisites and qualifications for extension workers of all kinds. An agent who has these powers and also has the best scientific training should have the greatest possible success.

In the inauguration and establishment of the Demonstration Work, system and management were largely responsible for its success. A county agent was required to visit his demonstrators at least once a month; the district agent visited the county agent just about that often and the state agent was supposed to check up on the district agent often enough to keep himself perfectly familiar with developments. It is difficult to fully estimate the value of these periodical visits. The farmers and the members of the family, who are demon-

strators, put forth extra effort to have their crops, their live stock, their preserves and jams, and their premises generally, in the best possible condition. It is human nature to want to win approval under such circumstances. Some students of this plan have said that the visits of inspection by the men and women agents are even more potent than the scientific knowledge which they impart.

The district agents, as a rule, have from fifteen to twenty county agents under their supervision. When they have spent a day or two with each one, the month is about gone. Of course they may find it necessary to spend three or four days in one county one time, and not more than an hour or two with another agent in another county. When a county agent is first appointed and begins work, the district agent may spend a week in that county. After the agent gets everything going good a smaller amount of time is necessary. Then again the district agent sees that the work in a certain county is not succeeding. He must diagnose the trouble promptly. Perhaps some advice and coaching may help the county agent. Perhaps the business men, the county commissioners or the educational board may be out of line and making trouble. Some counsel and guidance from the outside may be specially timely and helpful. The district agent comes along with information about how they do things in other counties, and gives just the aid that will smooth things out again. Whenever it becomes apparent that the county agent is a misfit, or has lost his usefulness and influence, the district agent is ready to bring about a resignation, and perhaps a transfer.

In the capacity of judges of people and situations, the district agents earn their salaries several times over. If the county agents were appointed from state headquarters, and if there were no supervision except such as can be done

through occasional visits and correspondence, the loss would be immense. Many states have more than fifty counties each and quite a large number have more than a hundred. In all such states county agents might be doing very poor work and the state supervising staff not get on to it until much damage had been done.

As drill masters and orderly sergeants the district agents are indispensable. They multiply the usefulness of the county agents and all co-operating folks. They are the universal joints which connect up the different vital parts and make the machinery operate smoothly and effectively. They are the governors on the engine which regulate the speed and prevent lost motion.

It has been said many times that the county agent should be an optimist in order to dispense good cheer and brighten the hopes of people who may be prone to complain and grouch. Some farmers form the habit of nursing the blues. Certainly no man or woman, who is a pessimist, should ever be appointed, or retained, as a district agent. Such a person can spread gloom over too many square miles in that position. By the same token, a radiant, hopeful district agent can send out all the county agents in his territory on missions of persistent, hopeful service every month.

The state agent is next in line in the scheme of administration and supervision. There may be assistant state agents, who share the duties and work of the state agent. In some states, too, the director takes the place of the state agent in the men's division, but usually he is the general supervisor, for the college, of all the extension activities of the institution. He is the dean of the field activities and looks after faculty and college relationships. As a rule, he is an active field captain himself and is the exponent of the

college of agriculture in its dealings with boards of education, boards of agriculture, the legislature and the public generally.

There is another wheel in this machine which, in the evolution, has come to discharge important functions and that is the specialist. It is recognized that county, district and state agents must have knowledge of rudiments and fundamentals of good farming and housekeeping, respectively, before they go among the people for work. It is recognized, also, that they are constantly observing the best work along these lines in their fields, but still there is a work for some specialists. They can concentrate on one thing more effectively. It is easy to overdo the specialist idea, however, especially if college authorities are disposed to follow their catalogue nomenclature. It is a mistake to assume that agents or demonstrators need help in all phases of subject matter. They have correct and usable knowledge of about 90% of the agriculture and home economics which are necessary in their business. The 10% which the specialists furnish, however, is worth more than one-tenth in effect because it represents the new and advanced things in science. Specialists waste much time and cause some friction when they assume to teach the whole body of knowledge under their subjects. They can accomplish much more if they devote their time to helping the agents and demonstrators only in the lines which are vital and urgent, and also new or unfamiliar. Whatever the specialists do should be done through the county agents.

A specialist should contribute the aid that the agents, farmers and their families can not get from their own study and observation. Of course the agents are too busy, generally, to follow up a subject as far as their own conditions demand,

and a man or woman who is devoting full time to it can make a most necessary and helpful contribution. For instance, a drainage engineer can attend a few field demonstrations and show the underlying principles of terracing or tiling, and the county agent will soon be able to do it and several farmers will become expert in a short time. A mechanical engineer can give some special instruction at Home Demonstration Agents' meetings, for a few days, and the whole group will be better prepared to give needed advice in regard to gasoline engines, water works, electric lights, washing machines and power equipment of various kinds for the farm home. Architects can give direction in the building of a half dozen houses in a county, in the artistic development of the lawn and landscape, and by that time the general interest and knowledge of the fundamentals will be sufficient to enable the agent to carry forward similar work all over the county. There is a very necessary work for specialists in combating plant and animal diseases and insect pests, but even in these cases the most common ones soon become subjects of general knowledge and the specialist does not need to give perpetual instruction to the same folks. The main point is that the county agent, under the supervision of the district and state agents, is on the ground, knows the situation and knows what the specialists have to offer. He must give direction to the whole program in his county or he will lose his standing and become discredited in his own position. On the other hand, if the county agent brings the specialist to his field for timely and expert aid, his own reputation will be enhanced and strengthened.

Wherever and whenever there is a change in the cropping system of a section of country and new crops must be introduced, as happened upon the advent of the boll weevil,

the specialist gets a chance to exercise his talents to a great extent, but even here he must realize the importance of working through the county agents.

No kind of work of specialists is more important right now than that done by the market experts. If they can shape their instruction, in standardization and selling, so that the county agents can grasp and promote them, they will render a great service to all the people. Better still, it must be cohesive and usable so that the farm folks will co-operate. After all, the main question is one of earnestness and devotion on the part of individuals who make up the organization. Hard and fast rules can not be laid down. A few general guiding principles are better than many regulations. It is impossible to catalogue the titles and duties of all the various kinds and classes of the army of people who are really working out a new system of procedure as they march.

The situation is very well stated in a quotation from an article by Herbert Hoover, in the *World's Work*, for April, 1920. He said:

"When a man has a big job to do, he first decides just what he wants to accomplish and then he gets the men he needs to do the work. He puts one man at this, and another at that, and tells both of them what the common purpose is. Pretty soon A and B overlap and then have to be got together and have a talk. The discussion settles where A gets on and B gets off, and both go ahead until a new situation arises. After a while B's work is found to be unnecessary, and he drops out. A new angle of work turns up, and C is put at that. When I was in the Food Administration, the Government kept sending efficiency experts to us, and the first thing they all wanted to do was to draw a 'chart of organization.' I wouldn't let them even get seated in a chair. An organization isn't a chart, it's a body of men — and any new organization that can be charted is badly launched.' "

He further emphasizes the importance of practical

achievement in preference to theorizing in the same article in this language:

"The Anglo-Saxon mind works differently from the Latin mind, and this difference accounts for the Anglo Saxon — The American — success in self-government. The Latin mind is logical. It insists upon reducing things to clear-cut, logical, 'principles' before it proceeds to action. Frenchmen, or Italians, will spend months drawing up a set of 'principles,' arguing endlessly before they can agree upon the precise phase that fits exactly their philosophical preconceptions — and the first time they try to do business under these 'principles' they simply start another endless argument over its violation of the 'principles.' "

"Now the American mind is logical enough, but it is practical. It does not conceive of 'principles;' it formulates ideals. These ideals are a rough conception both of what it wants to do and of the spirit in which it wants it done. To achieve these ideals, it formulates measures. Then it proceeds to action. If the first set of measures does not produce a result that satisfies the ideal, it casts that method aside, and tries another."

Specialists, county agents and all other workers need to remember the early instructions in the demonstration work, viz.: "Get results first and do the talking afterwards." Such a line of action will prevent misunderstandings and make co-operation easy.

From the very nature of the case, general instruction in this work begins with the demonstration. It is the nucleus in theory and in fact. It is somewhat like the story of the western farmer who had three sons. He wanted them to stick together and keep the farm intact after his death. It was a cattle and hog farm. Following a good custom, he suggested that they name the farm. They thought it over, but could not agree upon a name. Finally they went back to their father and asked him to suggest the name. "Certainly," said he; "my sons will raise meat here and I think Focus will be the best name. A focus is the place where the

sun's rays meet." They agreed upon that name. From the farm and home demonstrations, the rays are reflected and refracted and the light goes out at many angles.

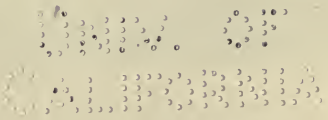
The farmers who live near a good object lesson will talk about it and ask about it. If it is located on the public road, the radius of its influence will be greatly extended. Logically the first meeting for instruction should be the field meeting. This is a group of farmers who have been called to meet upon the farm of a neighbor, who is conducting a demonstration. Of course the county agent should be present at least until the work is well established. Later the specialist may be present also. The main instructor, however, will be the man who has grown the crop or produced the live stock which is being exhibited. Before the demonstration work began, it was thought best to hold farmers' meetings at the court house or perhaps at the high school building. Often these meetings were poorly attended. Sometimes there were as many lecturers from the college and Department present as there were people in the audience. Considerable expense was incurred and energy devoted to conducting farmers' institutes, which did not seem to reach the farmers or even appeal to them. Those in charge failed to realize the truth in Gladstone's philosophy when he said: "One example is better than a thousand arguments." Field meetings, or field schools, as they were sometimes called, had a fine stimulating effect. When a sufficient number of such gatherings has been held in a county they touch every community; then it is much easier to get a larger attendance at some central point. More successful meetings have been held in corn, wheat, bean, clover and alfalfa fields, since the inauguration of the demonstration work, than had ever been held in the interest of agriculture in this country previous

to that time. The same thing is true with reference to meetings in gardens, orchards, barnyards, lawns and kitchens.

The evolution of group meetings, among the club members, for inspiration and training has been similar to that of the adults. In the very beginning of the corn clubs, the boys had their round-ups and rallies on the best acres of corn. It is true that they had clubs and were supposed to have meetings at the schools and other public places, but as a matter of fact, there were many individuals who joined the county club, not for the sake of any club features, but rather for the instruction and the competition. Most of them started their activities as individuals and grew into the idea of community meetings.

The poultry and pig clubs operated the same way. On account of the technical and mechanical instruction necessary in the canning work, the girls had canning parties in the beginning. They co-operated in learning the work which they had to do. However, these girls started as individual demonstrators in their gardening work.

When a considerable number of individuals in any of these phases of work began to advance, they soon manifested a desire for more information than could be given by the agents on occasional visits. Of course the small group meetings enabled them to exchange ideas and they gave the county agents a chance to give them more general and extended instructions. In a big county with constantly increasing interest, the demand for instruction, advice and help is so great that the agents try to meet it by holding county conferences, campaigns, short courses and general rallies. In this way agents from neighboring counties, district agents, specialists and workers in related lines, generally, can be called upon for their contributions. When the growth of the



A local club at one member's home

Prize winning club members and their exhibit

work itself creates a demand for such meetings it is sure to be helpful and effective. The kind of instruction given at these meetings will be more appropriate and effective than was the case under the old plan where the lecturer prepared his deliverance before he left the college and inflicted it upon all parts of the state alike; even though the soils, crops, insect pests, animal diseases and climatic conditions might vary widely. Community and county rallies on public days and at fairs have been used to good effect for mass education along specific lines. This has been unusually true with the Boys' and Girls' Clubs. They have used exhibits, parades, banners, streamers, caps and other regalia to impress the nature of their organization and its achievements. In their talks to the assembled audiences and with their displays, they furnish illuminating illustrations of what they had done throughout the year. Oftentimes the most valuable contribution at such meetings is made by a club member or demonstrator who had previously had no experience in public speaking or in making exhibits. The essays on "How I grew my crop" have taught more people the fundamentals of good farming than elaborate addresses and bulletins written by experts.

While hundreds of meetings, lasting from one day to six weeks, with an attendance of from 100 to 1000 and more people, have been called short courses, they are really more than that. They are revivals in agriculture and home making. They are drill and training camps and they are a part of this great country life reformation. Their object is to confirm the faith and approve the achievements of those who have set out to bring better conditions to their communities, and also to give them increasing purpose and additional knowledge for the enterprises of another year. It is not

sufficient to describe such occasions as schools, courses or institutes. The nature of the action and the spirit of the assembly are different. It is an unique institution because it is designed solely to meet a specific demand. Out of the desire for definite help for club members have come various encampments which have been organized to promote club work among the members. As a rule, these are called "4-H" camps. They are held for four days. During that time the club members get valuable experience in conducting their own activities, both for instruction and entertainment. The camps are great recreation centers also. The youngsters get valuable practice, too, in preparing and serving their food. In all this work they bring in such aid as they are able to get from the realm of science. They, too, strive to get material for use throughout the rest of the year. Some of these camps have used the county as a unit; some represent two or three counties in co-operation, and others have been state-wide and interstate. Camp carries the idea of drill and suits better than scholastic terms.

Perhaps no meetings of instruction have had such far-reaching influence upon the extension work in general as the conference meetings of the Demonstration Agents. When there were not more than eight or ten agents to the state they held meetings annually and sometimes semi-annually. In the formative days, Dr. Knapp and other representatives from the Department of Agriculture in Washington attended practically all of them. Those few agents caught the spirit of the work and learned the method of it. As a rule, all the agents in a group had the same kind of work in hand. The result was that there was much unity and zeal in their association. There was a certain devotion and innovation about it because of the vital interest involved, and because they

were able to report results achieved. The experience meeting has been a most potent part of all meetings of the demonstration forces. Doubtless the fact that the agents looked forward to the next meeting cheered them on in getting good results in their counties. They were anxious to report them and receive the plaudit, "Well done." When the forces grew larger the state meetings were continued as annual meetings and the intervening meetings were held in districts. Instruction in the district meetings was more intensive and specific, while at the state meetings there was the expanding of the horizon and the enlarging of purposes. There is just enough of system and discipline in an organization of this kind to give it tone and effectiveness. In the absence of such supervision, the centrifugal forces would grow stronger than the centripetal, and by and by, the organization would disintegrate. The meetings have strength and power. It may not be generally recognized that the annual meetings of the state farm demonstration agents of the fifteen Southern States in Washington gave direction, coherence and integrity to the work in all of those states. They have done more than anything else to establish the harmony and symmetry which run through this entire organization. Soon after state agents were appointed for the different states they began to hold annual meetings of a week or ten days each. These men, with Dr. Knapp at their head, worked all day and every day of their sessions making each other familiar with developments, outlining definitions and policies, and making plans for the ensuing year. They, too, were anxious to get the best possible results in their states so that they would be prepared at the next annual meeting to give reports for the inspiration of each other.

The annual conferences of the women agents had even

greater significance and influence, because when they began to formulate their program of work they encountered more technicalities and difficulties of detail. Furthermore, the man who had thought out the demonstration work was no longer with them. They had to study his philosophy and trust their combined judgment in the development of it. They gave individuality, character and power to their program, however, and the effects have spread to other parts of this country and are destined to spread throughout the world. Joint meetings of different kinds of agents from all over the United States were held soon after the idea began to be generally adopted. Such meetings have been held at Washington, St. Louis, Chicago and elsewhere. The whole tendency of such meetings is towards mutual encouragement and general intelligence.

A very significant meeting was held at Gulfport, Mississippi, in the fall of 1919. It consisted of directors, state agents, club agents, district agents and specialists from all the Southern States. It was a culmination organization meeting of all the demonstration forces who had united to review their achievements during the period of the work and to take stock and make plans for the reconstruction period.

While the best teaching is done face to face, yet the agents must use the printed page. The early demonstration circular of instruction was a short one. It never consisted of more than eight pages. Sometimes it had not more than two. As a rule at that time the other Department bulletins varied from 40 to 60 pages. One of the main advantages of the short circular was that it discussed just one thing,—that happened to be the thing which all the agents were impressing at that time. For instance, the circular on the "Selection of Seed Corn" did not give a whole history of the corn plant or corn

production, with an elaborate discussion of all of the different varieties. It advocated the selection of the corn in the field. It gave a picture of a good typical stalk and some short discussion with regard to the ears, cobs and grains. It impressed the importance of vigor, vitality and ancestry. An agent carried a handful of these circulars with him—went into the fields and actually helped in the selection and marking of the stalks. He did this for the demonstrators and especially for those who expected to continue as such. The boys took much interest in this phase of the work from the beginning and they used these simple circulars quite as much as the men did. Many corn judging days were held in the fields, at the fairs and at the schools.

When the time for fall plowing came the agent carried a supply of the leaflet which had been prepared on that subject. It contained facts and observations upon the effect of deep plowing in different soils and under varying conditions. It emphasized the importance of increasing the depth gradually. All of those engaged in the work discussed these points and did this kind of thing at the same time. Similar procedure was carried on at the season of the year when further preparation of the seed bed was necessary, and also in the application of commercial fertilizers and barnyard manures. There were special circulars on all of these subjects.

The printed literature on live stock was very similar to those on crop production. For instance, the circular on "Hog Raising" plunged immediately into methods of management for profit. It proceeded to show that the hog is a grazing animal,—then a cropping plan with a diagram, showing the crops that should be raised at different times of the year, was given. There was no long discussion about different breeds of hogs or the history of the swine industry. Neces-

sary details were given with regard to the management of the herd and the equipment necessary to take care of them properly.

It was easy to get information to the public with leaflets of this kind put into circulation by a live man. When a county agent succeeded in getting farmers all over a county interested in one operation at a given time, he found it easy to get the ear of the editors. They would give space in the papers for the discussion of this theme because they realized that everybody was talking about it. It was of general interest. Oftentimes the newspaper people took trips with the county agent in order to get into the swing of his work and be able to describe it better. The public got the lessons one by one. The editors published them week by week and month by month. When a reporter can find a farmer who is making a record in the production of corn, cotton, hogs or cattle, he likes to interview him. It is worth more to the paper than to get the same information from an outside source. The editors appreciate the importance, too, of impressing the public through the achievements of the club members. Their prize essays, as well as their public talks, have used up gallons of printer's ink for the welfare of the people.

The pioneer demonstration agents knew when to use the 60-page bulletins. After the initial steps have been taken and after the appetite for knowledge has been increased, club members and co-operators will use larger bulletins. They will classify them and put them on the bookshelves in their homes, along with the few books they have on agriculture and home making. The club members make the bulletins more valuable by the purchase and construction of bookcases, wall pockets, files and other similar methods of preserving and ready reference. In the same way, the club

scrap book for clippings has been the means of saving and utilizing information. Some of the club members who began several years ago have books containing many pictures and articles of real value. Such books are well classified and indexed.

Dr. Knapp and his associates realized the importance of magazines, year-books and other special articles. By the time the men had their work well established and the boys began to break world records in corn production, intelligent people everywhere knew the nature, purpose and spirit of their activities. They had read about them in the current periodicals of the country. It was a common thing in public gatherings, and even in conversations on the railroad trains, to hear remarks from lawyers, preachers, doctors, drummers and people generally about the demonstrations that were being made. A candidate for the United States Senate from Mississippi went to Chicago on business. He was interviewed by a reporter from one of the big papers in that city. He was asked about the forthcoming election and Mississippi's prospective representation in the nation's greatest deliberative body. The Senatorial candidate replied: "It makes very little difference which one of us is sent to Washington, but one of our boys who produced over 200 bushels of corn to the acre is going to Washington next week. His trip has real significance for Mississippi and for the South." The recent history of agricultural progress and prosperity in Mississippi shows the wisdom of the observations made by this statesman. It was worth a great deal to have the public understand the genius of such work. They appreciate the fact that it begins at home, develops and expands.

Just as soon as the men and boys began to attract attention with successful work, their supervisory agents made

photographs of them and their products. These pictures were made into cuts and slides and given wide distribution for the encouragement and inspiration of others trying to get results along the same lines. There is a wide difference between a demonstration and an illustration; but the demonstration workers have not failed to use illustrative material whenever possible. In the same manner the motion picture machines became generally effective and scenarios were planned to show work on farms and in farm homes. Various stories of demonstration work have been rather fully told through this great publicity medium. Doubtless the movie will be used to a much greater extent in county districts now that lighting by electricity is becoming more general. The development of lighting systems on automobiles will facilitate their use also.

In most of the agricultural counties in the United States the Farm Demonstration Agent and the Home Demonstration Agent are both recognized officials just like a senator, sheriff or a school superintendent. The work as an institution has standing in the popular esteem. This position has been reached gradually. A supporting public opinion is most valuable. It has asserted itself hundreds of times when delegations have appeared before county commissioners and other appropriating bodies asking for funds. This work has caused many farmers to realize that tax money can be spent in such a way as to give one hundred cents on the dollar, or more. In fact, taxpayers have gone before such boards with estimates showing how much taxes certain farmers pay to support men and women agents and also how much the work benefits them. If a man's property is assessed for $10,000, his part of the agent's salary will not be much. In a certain instance a man objected to an appropriation for a county

agent. A fellow farmer went to the tax books, learned the amount of his assessment, figured his proportionate share in the agent's salary, and found that this man was contributing four cents for both agents—a two-cent stamp for each. While he had not signed up as a demonstrator, he did buy some good seed corn from a man who had been in the work for several years. He had also bought some good pigs from a club member, and his prosperity had been increased in several other ways. His property was enhanced because of the general advance in agricultural matters. In some counties the question of appropriating money to supplement the salaries of county agents has been submitted to popular vote. In nearly every case of this kind the majorities in favor of such appropriations have been large. This indicates that this new factor in civilization has the endorsement of the people generally. It is the kind of an institution which flourishes best in a democracy because of the absence of class distinctions. These agents work for the welfare of the whole people in their counties.

The following extract from the report of a state agent shows how local aid supports the agents in their work:

"In Greenville the people seemed to be much pleased with the work done this year. The delegation made an appropriation of $1,300.00 and we are to give the agent an assistant."

"The Senator from Newberry County said that he thought our Newberry agent, was doing more good to the county with her work than anyone in it. The delegation of this county will also give a larger appropriation."

"Spartanburg appropriated $1,500 for the support of our work as in other years, and consequently we shall have two agents in this county."

"A year ago Marion County on account of politics, dropped out. Tuesday of this week, I met with the delegation from this county and $750.00 was pledged for the support of the work next year."

"I found that it was necessary for me to go to Sumter again to represent our work. After some deliberation $1,425.00 was appropriated for another year."

While there is much popular support of agencies of this kind, it is very interesting, in passing, to observe some of the different elements which make up the whole. From the very beginning all progressive school officers and teachers have been good backers and helpers. They seemed to realize that demonstration agents had similar motives and purposes to theirs. Although there was a contrast in methods of approach and work, there was similarity in aim. Very few county superintendents of education have been found who did not grasp the work at once and lend the influence of their official positions to promote it. It has been true, also, with a large majority of teachers. Of course the agents occasionally encounter the fossilized and crystallized types who are opposed to change and progress. Their horizon is so circumscribed that they can not see beyond the textbooks they are teaching. At least the circumference of their influence is marked by the walls of their schoolrooms and sometimes by the edges of the rostrums upon which they constantly sit. These are the exceptions, however. Demonstration agents in all of the states, in their weekly and annual reports, constantly pay tribute to the teachers who encourage the boys and girls in the things the agents are trying to get done. These teachers realize that such work is the practical application of the truths that they have been teaching in the abstract. It is a source of real gratification to them to see their own instruction in action and in operation. The history of the valuable work of the early demonstration agents is not complete without some recognition of the splendid activities of teachers and school officers as fellow helpers.

Many of the club members have grown better corn and pigs, and produced better poultry and preserves because of the visits and encouragements from teachers whose influence and approbation they hold in high esteem.

There is another type of supporting opinion which the work is now receiving in large measure, and which at one time was more meager. This is the sentiment of the professors and scientists in the agricultural colleges, the Department and universities generally. In the beginning, quite a number of these men seemed to look upon the new development with a feeling of doubt, if not of jealousy. Many of them seemed to think that the experiment stations and the teaching agencies thus far established were sufficient in themselves. They were inclined to antagonize any new method of procedure. This attitude on their part is another illustration of the fact that inventions and reforms are seldom inaugurated by professional educators who have settled down into routine activities. The demand for reforms in education comes from outside the teaching force more often than from within. However, when the demand is recognized and the improvements begun, such people can usually be depended upon to use their trained minds and funds to carry it forward. This has been the history of the demonstration work. Many men who did not support it at first are now among its strongest adherents and promoters. Some of the men in charge of the work in the colleges now have a splendid insight into its meaning and possibilities and are conducting it with zeal and efficiency. Reference has already been made to the prompt and cordial support given by business men from the beginning. They have realized that the best way to build up their towns is to build up the surrounding country. The 1920 Census figures show that the cities and

towns have been robbing country districts of their population. Farmers have always been generous in buying stock in business, manufacturing and industrial institutions in nearby towns and cities. They have spent their money in this way because they were public-spirited. In many cases they had very little prospect or assurance of dividends. When the factory, bank, or mill went to smash they charged it up as profit and loss, but they still felt that they had made a contribution to the general welfare by erecting such a building and establishing such an institution. They did not realize that the community and the nation would have been better off if they had spent some money in improving, equipping and beautifying their own farms and homes. When the opportunity came along for the city and town man to exercise reciprocity and return the favor in the support of this work for the farmer and his family, he did not hesitate to do so. The bankers, merchants, manufacturers and business men generally have given constant and increasing support and aid. This has been true in raising money for salaries of agents, for establishing offices and rest rooms, buying automobiles, paying traveling expenses and putting up money for all sorts of prize trips, scholarships and other valuable contributions for the club work for boys and girls.

Another interesting phase of support has been manifested by the farmers themselves. Their organizations gave hearty endorsements in the early days. It has come about more recently that such organizations, which have membership fees and ample treasuries are beginning to make liberal appropriations themselves for salaries and travel for these peripatetic workers. With all of these various kinds of backing from the different divisions of the body politic, it was

to be expected that the work would receive recognition from various state legislatures and ultimately from Congress itself.

Numerous testimonials were sent by farmers to those who had charge of the demonstration work. They were sent out of sheer appreciation. The following are good examples:

"I desire to express my appreciation for the demonstration work that was begun in our midst by you a few years ago and has been so sucessfully carried on by you and your agents to the present time. This work, to my certain knowledge, has been of inestimable value to the farmers of this county. Before this work was commenced, most farmers had to purchase corn, bacon and hay from the West, while to-day about one-half our farmers have one or more of these articles for sale; instead of hauling corn from the depots as formerly, we are now hauling corn to the depot. I am now 65 years old; I have learned more about farming during the last five years than I ever learned all the rest of my life . May the good work go on."

"We are cranks on Demonstration Work. Our neighbors say we are crazy."

"We consider the Demonstration Work as almost revolutionary in our immediate neighborhood, having for its main object the teaching of the A, B, C, of scientific farming. It is building up the soil and, at the same time, increasing the yield and decreasing the labor."

"We as demonstrators this year, under Mr. Phares' instruction, have witnessed a complete change in the attitude of our neighbors who have examined our demonstration crops. These have become enthusiastic converts, who were at first hostile to the methods."

Dr. Seaman A. Knapp, founder of the work, always held to the belief that financial support would be in proportion to real results achieved. An agent who secures 75 or 100 good demonstrations by farmers, and an equal number of club boys doing their work well, and backs these object lessons up with some high-class general instruction, is usually endorsed by a renewal, or an increase, of the appropriation by the county authorities in charge.

On the other hand, an agent who merely considers himself a teacher at large and who goes from school to school giving lectures, and who maintains a column in the county paper for dishing out stale and common place information, is liable to be cut off for lack of funds. Publicity from the successful demonstrations will promote the work and receive encouragement, but results must be the foundation upon which it is based.

The history of the financial support of the Demonstration Work reads like a romance. In 1905 the total expenditure was just a little more than $40,000. By 1910 there were approximately 400 agents and a total of about one-half million dollars from, federal, state and local sources. In 1915 there were about 1,500 agents and nearly five million dollars from all sources. Before the next five year period had elapsed the number of extension workers had exceeded six thousand and the total financial support was considerably more than fifteen million dollars.

These totals were reached in 1918 while the war was in progress. At that time there was an emergency appropriation and a great many urban and assistant agents. When the large emergency appropriation was withdrawn, however, and the number of agents consequently reduced, it was very significant that the increased amount of local aid funds was so large that the total financial support did not vary much. For the fiscal year, 1919-20, it was $14,253,944.00. This clearly indicates that there is a substantial supporting sentiment backing the work and that it is, therefore, upon a permanent footing.

As long as the principles enunciated by the founder of the work are faithfully followed, there need be no uneasiness about its permanency. In 1906 when there were only a

few agents, Dr. Knapp used the following language of prophecy:

"The time is opportune for this great work. Friends will rise up to aid it. Providence, destiny cannot be thwarted. The revolution must continue until the problems of poverty are solved, the measure of human happiness full and the reproach that has hung over our rural domain, by reason of unthrift, ignorance and poverty shall be wiped out and America shall possess a yeomanry worthy of a great nation. In advocating a campaign of demonstration for increasing the earning power of the people on the farms I would not detract from any lines of spiritual or intellectual uplifting. Churches must be established, schools and colleges maintained, science taught and country betterment promoted, but they must keep step with increasing productive power. I am simply calling in question the possibility of obtaining all these grand results of a high civilization without any money to pay the cost and without earning power to sustain them."

CHAPTER VIII

THE DEMONSTRATION WORK IN INCIDENT, STORY AND SONG

WITH so many thousands of people as performers in so great an enterprise, much of incident and anecdote naturally develops. Some of the workers are inspired to write poetry and song. Specimens of such literature are preserved here as a part of the history of the movement. Dr. Knapp, himself, wrote some of his instructions in the narrative of the dialogue. His Uncle John Stories were widely read. This form of expression was much used in appealing to the members of the Boys' Clubs, through the agricultural papers. The boys readily grasped such instruction.

The following is one of the first of the "Uncle John Stories":

"One day last spring I called on Uncle John and we went into the field to see his cotton and corn. Uncle John is a fine, old conservative farmer as good and true as men are made, but when he was a boy farming was done with the plow and the hoe by hard muscle. No one ever thought of attaching brains to them. As we entered the field Uncle John remarked: 'You see my stand is not as good as I wanted. I planted a full bushel of seed and a little thrown in extra. It was good cotton seed. I got it from the gin and the plants came up thick enough in most places to raise the crust, but in some places they did not come up at all. A good many of the plants died, though I gave the crop a good hoeing and kept the grass out. I believe in clean cultivation, and for this there is no implement that quite equals the hoe."

"My dear Uncle," I replied. 'Your are worth your weight in gold and if you would change some of your old methods of raising cotton you would soon make enough money to buy yourself and retire from business.' In view of this unpromising crop I want to tell you several things that will be helpful. The world knows a lot more about plant life than it did twenty-five years ago. Your first mistake was that you did not thoroughly prepare the land for planting. It should have been worked until the soil was like an ash heap, 3 or 4 inches deep. You did not drain the rows so that there would be no wet spots, even with a heavy rain. Look at the long spaces where there are no plants. If the soil is properly prepared there is little danger that there will not be moisture enough for the seeds to germinate, but in most climates and soils there is always danger of too much water in the soil. Standing water is death to cotton and corn.'

" 'Your next mistake was in getting gin-run seed and planting too many per acre. If you wanted a clean, vigorous and thrifty family, you would not go and get a lot of gin-run boys and girls.' 'What do you mean by gin-run boys and girls?' rather sharply interposed Uncle John. 'I mean,' I replied, 'Boys and girls picked up in the homes of the orphans, without any knowledge of their parentage, and you would not get five times as many as you intended to raise, judging that enough of them would die of natural weakness or consumption, or from other causes to leave the proper family. Yet, that is what you did with your cotton; but we will talk more of this another time.'

" 'You planted too deep and there was hardly strength enough in the little plant to reach the air and it died before it could draw support from the soil. The plants were in the main too crowded. They lacked food and air. That crust on the soil should have been broken. It shuts out the air essential to germination and growth and aids evaporation. Delay planting till the weather is warm. Cotton is a tropical plant. Prepare a fine seed bed; plant shallow — not over one inch deep, if that depth reaches moisture — and the plants will be up in a few days. Run the smoothing harrow two or three time diagonally across the rows as soon as the seed is planted and again and again when the plants are 2 or 3 inches tall. This should be repeated, removing a tooth from the harrow and going

astride the rows, as in cultivation, till the plants are 6 inches high. The harrow prunes the roots a little which tends to give the plant a lower and 'limber' habit of growth; it opens the soil to receive the air; it promotes growth and destroys weeds.'

"The hoe is the natural enemy of the cotton planter. It kills some weeds, but it finally kills the planter financially, and as generally used it does not properly air the soil, which is the chief end of cultivation. When the cotton plants are small, thoroughly work the spaces between the rows two or three times to a depth of at least 4 inches. This leaves a fine seed bed for the roots to occupy and get food and water. All later cultivation of plants and middles should be shallow — not over an inch and a half deep. This keeps a dust mulch, which checks the rising soil moisture and plant food just at a depth where there are the most rootlets to utilize them for plant growth. A plow is the poorest implement with which to work a cotton crop that could well be used." 'Tut! tut!' said Uncle John. 'What you said about the hoe was bad enough and now you jump on to the plow. I have used it all my life and it is a pretty good tool.' Yes, you have used it all your life, and you have not averaged a third of a bale of cotton per acre in all that period when on such good land you should have averaged a bale. At present prices this is a yearly loss of $40.00 per acre, lint and seed included. You have 200 acres in cotton; your losses, even at the lower prices of cotton in former years have for that period exceeded $20,000. What have you to show for it? Some old plows and antiquated hoes; if they have not kept you poor, they have prevented you from getting ahead. There is nothing on a farm that pays greater dividends than the best teams and tools.'

"Shallow cultivation should be continued as late as practicable. On very rich bottom lands after the plants are thinned, to a stand, bar off on each side if they show too rapid growth. This root-prunes and checks a tendency to make excessive stalk. It also gives the plant a hint that it must commence fruiting.

"What I have said about cotton is true of corn, only corn requires a deeper seed bed than cotton and different spacing for the plants. The cultivation is practically the same, though local conditions of soil and climate may require considerable modification in the treatment of the corn plant. The experience of the best farmers must determine this.' "

When Dr. Knapp attended a meeting of his agents, he always had a carefully prepared address for them. This address was full of the principles and facts about the new work which was developing so rapidly. But he sat by the State Agent, who presided, and contributed his wisdom to the discussions of the occasion. Many times his remarks constituted an incident of great significance to the development of the program of work, and the agriculture of the section of country. For instance, the following short speech was made when the subject of the Preparation of the Soil was under discussion. Such deliverances revealed his knowledge and insight, and had a profound effect upon the men before him. These men soon learned to study and investigate the soil, plants, animals and climate where they were working.

DR. KNAPP ON STUMPS, BRUSH, WEEDS AND GRASS

We pay a larger tax every year for stumps, brush, weeds and grass than is required to support our municipal, county, state and federal government, to endow all the colleges and educate all the youth of the land; and we get no return. A stump not only occupies valuable space, but it prevents the use of improved implements for better and more rapid tillage of the soil. The cost of farm labor is on the increase with the certainty that this will continue till the equation of wages on the farms and in the town or city is more equal. The remedy for higher priced labor on the farm is the use of more and better teams and implements. If the day wage on the farms of the South advanced from 75 cents to $1.50 then each farm hand must plow, plant, and cultivate twice as many acres in a day as he did before and this is an easy problem. But the stumps must go, and the farmer who does not try to get rid of them will soon be a back number. The

stump farmer pays about $4.00 an acre every year for the privilege of having stumps in his fields. In addition, there are generally a few feet of untilled soil around every field stump which produce foul weeds and grasses to seed the land.

What has been charged against stumps applies with still more force to trees, shrubs and brush patches in the field; dig, burn, destroy; they are natural enemies of the farmer. Straighten out the sides of the field, square up the corners and avoid the short rows as much as possible; they increase the work of tillage.

Farmers have become so accustomed to fighting weeds, and grasses in the cultivated fields that they regard it as a matter of necessity. They think the land is full of foul weeds and, of course, they will germinate when it rains.

When the virgin soils are first placed in cultivation they are comparatively free from weeds and grass and that they become foul is due to faulty management on the part of the farmers. It is not difficult to discover the real causes. First, careless cultivation, which allows weeds and grass to mature seed in the cultivated fields. Second, little attention is paid to the highways, the brush patches, the fence corners and the pastures, and they are almost universally breeding grounds for foul weeds and grass. It has been charged that the Southern farmer is careless. It may be true in some things, but in one thing too many of them stand first among the farmers of the world—they never fail to raise a crop of weed and grass seed large enough to seed their own fields and their neighbors.

The cost of this universal weed and grass seeding amounts annually to more than $5 for each acre in corn, and $10 for each acre in cotton. In 1909 in the states of Ala-

bama, Arkansas, Florida, Georgia, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas and Virginia, there were 40,965,000 acres in corn and 30,693,000 acres in cotton, which would show a yearly loss of over 511 millions of dollars. This loss can be greatly reduced by intensive cultivation continued as late in the season as possible, and by mowing the roadsides, the fence corners, the borders of the fields and the pastures in June and in August. At first it seems like a waste of labor, but its beneficial effects soon become apparent.

A persistent war on weeds and grass, stumps and brush in the fields is one of the greatest progressive movements necessary to advance in agriculture.

By J. Phil Campbell, Director of Extension for Georgia

One time I was traveling with Dr. Knapp and Mr. Richards, Industrial Agent of the Southern Railway, from Washington to Atlanta. From Atlanta we went to Macon over the Southern; thence, to the southern part of the state of Georgia. When Dr. Knapp completed his trip he summed up his observations as follows: "The South has three principal belts and soil types, the Great Coastal Plains, reaching from the Potomac to Texas which, when the boll weevil has covered the cotton belt, will be the hog country of the United States. Its climate is conducive of two litters a year, and its soil is well adapted to root crops and forage crops, which the hogs will harvest themselves. The next belt, beginning at the foothills and reaching to the mountains, is the Piedmont region, which has a somewhat cooler climate, and a soil well adapted to cotton raising. Here the boll weevil will not do so much damage as in the Plain belt, and this, in time, will be the cotton producing area. North of this are the mountain ranges, and the steeper hillsides, which will

one day be covered with grasses and dairy cows. With the eradication of the cattle tick, this should be the chief dairy section of the East. The good springs and running water on every section of the land, the excellent soil adapted to grazing and silage crops, make this an admirable dairy country."

Probably you have heard Dr. Knapp make this prophecy, and since his death it has largely come true. The Coastal Plains have doubled the number of hogs, as Dr. Knapp stated. The Piedmont region is largely the cotton growing territory and many cheese factories have sprung up in the mountain districts which have stimulated the dairy industry considerably.

Some Reminiscences From a State Agent

On one occasion Dr. Knapp and another gentleman were both on the program for addresses at a Farmers' Convention at Raleigh. The other gentleman spoke first, beginning at 8 o'clock and consuming two hours, a part of which was devoted to his North Carolina ancestors and in tracing his history from them up to the present time. At 10 o'clock, Dr. Knapp was introduced and opened his talk by saying he felt sure that he had some ancestors, but he had not inherited from them any tendencies to give addresses after ten o'clock at night, because he had always followed the habit of retiring at that hour and advised his audience to do likewise. He made no speech that night, but the people were determined to hear him, so they came together next morning and listened to him with great delight.

At a meeting of the agents in North Carolina at Raleigh, early in the work when there were only about a dozen of them, and practically all of them good farmers past middle age, Dr. Knapp was standing in the hotel lobby talking to them about the great importance of the work, the pressing need

of it, and the opportunity the agents had now of rendering some real service to their fellow farmers. Dr. Knapp stretched out both arms, embraced as many of them as he could, and said: "God bless you and the great work you now have to do." I have never seen a bunch of men so affected and so drawn to a man as these men were to Dr. Knapp. His influence still lives with that group of missionaries and is felt in the state today.

On a certain occasion when Dr. Knapp was introduced to a gentleman on the train, the gentleman, feeling that he must show his appreciation of Dr. Knapp, said: "I am glad to meet you, Doctor. I would have known you by having seen your photographs in the papers." Dr. Knapp's reply was: "Yes, I always try to look like my pictures."

I will say personally that it is one of the greatest delights of my life to have known Dr. Knapp. There is not a man in the United States today that I have the same admiration for. He is one of the greatest teachers that I have ever come in contact with, but he has nothing of the academic type about him. All his teaching and all his work were thoroughly practical and based on the widest common sense conclusions."

C. R. Hudson, State Agent for North Carolina.

An Accurate, Unselfish County Agent

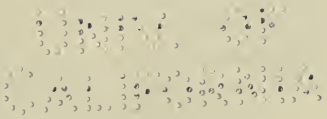
During the first ten years of the history of the Farm Demonstration Work, hundreds of agents were appointed because they were successful farmers and because they had a high standing among their people. Their lives were open books which had been read and appreciated.

G. A. Derrick, of Lexington County, South Carolina, was a man of this type. He realized the importance of having

conspicuous object lessons in the production of good crops all over his county. Perhaps he was something of an exception in his requirements of accuracy, exactness and thoroughness. He had some training and experience as a surveyor. Whenever a man agreed to take a demonstration in corn, cotton, cowpeas, vetch, clover or grass, he took his compass and chain and measured off the plot. There was, therefore, no question about the acreage. When the crops were harvested he was just as careful in the weights and measurements. He never reported that a demonstrator made about fourteen or fifteen hundred pounds of seed cotton to the acre. He put it 1472 pounds, the exact figures. He reported the yield of corn in bushels and pecks and yields of hay in tons and pounds. The doubters had no difficulty in confirming his figures from witnesses and records. This established the work in the confidence of the people.

After this faithful agent had been on the job for several years, he came to the conclusion that the development of the work and the increasing demands of the farmers for more scientific knowledge called for a young man with agricultural college training. Entirely of his own accord, he asked the authorities to select the best young man of this kind who could be found, and then accept the resignation of the old county agent. He furthermore expressed his desire to have the new agent as his guest for a week or two, in order that he might introduce him to the people and give him the full benefit of all that had been accomplished hitherto.

This same kind of self-sacrificing magnanimity for the good of the cause has been manifested by many of the pioneers who aided in establishing the demonstration work. They acted for what they conceived to be the best interests of their people. They rolled a great responsibility upon the



Demonstrating steam pressure cooker to Home Demonstration Club

Demonstration agents making butter with improved equipment

younger and better educated agents. Time will show whether these new agents will do their parts as well as their predecessors. One thing is sure, those who appreciate the principles upon which the work was founded, and the achievements which made it successful, will succeed. Those who do not will fail. There can be no permanent success in any county unless the demonstration idea is preserved and unless the structure is built upon the foundations so properly laid.

My Interview with Dr. Seaman A. Knapp

In February, 1911, I was called to Washington by Dr. Seaman A. Knapp to discuss plans for organizing club work for girls in rural communities. There I met Miss Marie Cromer of South Carolina and Miss Ella G. Agnew of Virginia, who had already begun the work in their respective states.

At that time I had never heard of the "Tomato Clubs," and when Dr. Knapp asked me to return to Mississippi and organize two counties, I was interested but very doubtful. For nearly two hours Dr. Knapp talked to me, outlining the plan as it had already developed and what he hoped and expected would grow out of that small beginning. At the close of our conference he said: "Through the tomato plat you will get into the home garden and by means of the canning you will get into the farm kitchen; it will then depend upon your tact, judgment, common sense and devotion to the work as to what you may accomplish for the women and girls in the home."

The vision which Dr. Knapp gave that day has carried the worker through ten years of strenuous pioneer effort, during which every prophecy he made has been fulfilled.

Miss Susie V. Powell, State Home Demonstration Agent for Mississippi.

Mother Walker

Among the first of the Home Demonstration Agents appointed by the United States Department of Agriculture was Mrs. Dora Dee Walker, of Barnwell County, South Carolina. Mrs. Walker, after the death of her husband, had managed the farm, taught school, established a small canning factory, and conducted her home with thrift, enterprise and good judgment until her children were all nearly grown. She had graduated from a high-class women's college before the days of home economics courses, and was a woman of refinement. She had been active in the State School Improvement Association and was on the executive committee from her congressional district.

Her club girls succeeded with tomatoes and then Mrs. Walker led them on to grow and utilize other vegetables. They attracted wide attention by their work with pimiento peppers and caused other counties to follow their examples. They made several thousand dollars out of their new venture the first year. One of these girls bought a bale of cotton with her pepper money and held the cotton for more money at the time the war depressed the price of the South's great staple. Another girl sold 50 bushels of peppers and hundreds of packets of seeds. She contributed $100 to the family automobile the first year. Mrs. Walker worked out recipes for chutney, relish, catsup, peanut butter, and crystallized fruits which have been widely used.

Mrs. Walker's good work was soon recognized and she became District Agent and afterwards Assistant State Agent. In this capacity she had a large share in instructing and training the agency force. The county agents soon learned to call her "Mother Walker." She used her skill and knowledge to show them how to start new industries in the homes

by utilizing old and new vegetables and fruits. She sent to other countries for seed and aroused the greatest interest and enthusiasm among the girls and women throughout the state. But best of all, she made the new agents understand the methods, genius and spirit of this new line of work.

The following quotations are taken from her reports made while the work was in a formative stage:

"Our Demonstration Work has originated under very bright skies, for of all the centuries this is the best century, of all the decades of a century, this is the best decade, and of all the years of a decade we hope to make this the very best for rural community uplift. The world is what we make it and most of the things of this life may be set to music, but sometimes people select the wrong tune and sing ragtime when perhaps they should sing Coronation. Among the encouraging developments in our work is the unparalleled flow of inquiries coming in, regarding material resources. Indications are that this year's harvest will increase, the corn fields will be more golden and the granaries more crowded. Remembering that every dewdrop has a solo, every sunbeam a psalm and every flower a censer; amid so much beauty, luxuriance and promise, how can we complain?"

"Demonstration Work in the homes! Doesn't that appeal to us? Upon what does the organization of every home depend? For the most part, upon the woman. She is the queen of domestic life. Her power of organization, her business management is what brings comfort and happiness to the home. Hers is the province to make home a true home, where comfort and happiness are supreme. First among her qualities is the intelligent use of her hands and fingers. The tidy, handy woman of management, at whose finger's ends are wisdom and virtues, is indispensable to the comfort of the household. The successful housewife is a woman of method, for without method, discontent and confusion hold sway. Punctuality and method in a home put to flight many little nuisances and even disperse clouds of grumbling sometimes. Add becoming tastes to these qualities and you have the requisites which contribute beauty to the humblest home, even where poverty exists."

Two Years Old as a Farmer

At one of the first meetings of the Farm Demonstration Agents of Alabama a farmer came in to tell Dr. Seaman A. Knapp what he thought of his County Agent. He said: "Doctor, when you sent that little strip of a school teacher down our way I said that he couldn't tell us anything about farming, but he came to me and asked that I take a ten-acre demonstration in corn and also one in cotton. The young man said that I'd make use of my knowledge and his information as well as that of the best farmers in the county. He also said that he'd try to bring the best information from the college and Department to bear on our demonstrations. He insisted that I must follow the instructions, agreed upon, very carefully. Well, I made the best cotton and corn in our part of the county, and I learned more about farming than I have learned before in thirty years. I am going to work the rest of my farm the same way."

He said also that he was 64 years old, but only two years old as a farmer. He closed with the exclamation: "Oh, Doctor, if you had only come along 30 years ago, I should have been so much more successful and useful in my community."

A County Agent Tells Why She Took Up Poultry Work

When the blight struck our tomatoes and discouraged the girls it occurred to me that poultry, and particularly the Co-operative Egg-Selling Associations, would be profitable. So I obtained a list of fourteen Farmers' Bulletins on poultry and wrote to the Department of Agriculture to send me forty copies each. In about three weeks I received a mail sack about four feet in length filled with bulletins. These I distributed and began to talk poultry and co-operative egg

selling. As a result there are now five Co-operative Egg-Selling Associations and two Junior Clubs. The first one was organized by Dr. J. C. Robert, a useful citizen who always leads off.

One of these Associations, with packing center at Centerville, has a membership of seventeen. At first the packing was done at the home of a member and the officers did the work. Now a Secretary-Manager is paid 1½ cents per dozen to do the packing, which is done in a room of the old school building in town. This Club has already sold more than $500.00 worth of eggs at prices ranging from 20 to 25 per cent above the market prices.

Another Association, with packing center at Woodville, has a membership of twenty. The Secretary-Manager is paid two cents per dozen. To assist with the grading and packing, the members are divided into committees of three, serving by turns. When first organized the packing was done at the dormitory of the Agricultural High School, but after the opening of the school the room was needed, so the agent at the Y. & M. V. depot offered to share space with us, the depot being a large and roomy one. This Association has an electric tester, scales for weighing the eggs, not accepting less weight than 2 ounces or 24 ounces per dozen.

At first shipments were made in the commercial cases with fillers. Now they are made in one-dozen cartons packed in commercial cases. Shipments are made by express, those made by parcel post not proving very satisfactory. This Association ships both the fertile and infertile eggs, receiving a premium for infertile eggs. They have sold 3,815 dozen at an average price of 24 cents a dozen, which is 6 cents above the market.

Association No. 3, with packing center in the country

one mile from Rosetta, has a membership of nine. The grading and packking is done at the home of the secretary-manager, assisted by committees. She is paid 1½ cents per dozen. Most of the eggs go to New Orleans.

The other groups have had somewhat similar experiences.

Miss Mittie Fugler, Mississippi.

Making a Demonstrator Demonstrate

I first met Uncle Jack Holloway during the infant days of the Demonstration Work. At that time I was county agent for McClain County, Oklahoma, which was the home of "Uncle Jack." I was making a campaign for better cotton in my county. I had a list of farmers for whom I was to order seed and this negro asked me to order five bushels for him. This I did, after having him to agree to follow my instructions in planting and cultivating the crop. He promised so faithfully that I ordered his seed as requested. He came to town, got the seed and promised not to plant until so instructed by me. I was unusually busy at that time, and did not see Jack until the last week in April. I stopped at his cabin in Walnut creek bottom, where he lived with his wife and fourteen children. In answer to my call a negro came to the door, and told me that Jack was across the creek planting cotton. I asked if he had planted his "Uncle Sam" seed, to which he replied, "Yes, sir, and done got it killed by frost." This was annoying to me, as I had picked "Uncle Jack" as a leader in the large negro community where he lived. He had broken his promise to me by planting without my instructions, and I was determined to let him know just what I thought about a "lying nigger."

I drove across the creek and found him "planting over" just as I had been informed. I said: "Jack, Uncle Sam sent

me here to get you for lying, and I am going to shoot you for a starter." He said: "Now, Boss, that won't make cotton." But I said: "It will get rid of a lying nigger." I asked him how many seed he had left. With a scratch at his woolly head he said, "'Bout half a bushel." We went together and got the seed and I told him that I meant to give him one more chance to redeem himself with Uncle Sam, and if he did not do so, as I said, I surely would shoot him and Uncle Sam would back me up in it. "Yes, sir, I shore will this time," he said.

I pointed out to him a piece of land containing about three-fourths of an acre and told him to prepare and plant it exactly as I said, and I also told him that I would be driving along the road every two or three weeks with a gun in my buggy, and not to let me see any weeds or grass growing in the field. Well, Jack carried out my instructions to the letter, and when he picked and weighed his cotton he found that he had made more than 1600 pounds. He sold his seed for a fancy price to neighbors, and negroes to this day buy seed from him. Jack enrolled his son Sam in the Pig Club the next year. No boy in the county did better than he did in that line.

H. Garland, County Agent.

By W. D. Bentley, State Agent for Oklahoma

"In the early days, down at the Farmers' Congress in Texas, boll weevil depredations and control methods were the chief topic of discussion. Quite a large party of special agents and farmers were in a group on the college campus talking about weevil remedies (there were dozens of cure-alls advocated in the papers at that time), when Dr. Knapp came along. One of the farmers stopped him and asked

him if the Government couldn't take some action to punish parties who advertised fake cures. He went on to tell how he had spent a lot of hard cash and been out a lot of labor in the purchase of a few barrels of turpentine which he had put on his cotton by means of sacks, wet in turpentine, and fastened to the cultivator to drag over the plants, and in spite of all that the weevils had totally ruined his crop. Dr. Knapp told him the trouble was he hadn't used the turpentine right, that he should have put it on the mules and the drivers of the cultivators so as to make them speed up the cultivation. Everybody yelled and laughed except the man who had the grievance. When the Doctor got done laughing he took occasion to lecture the bunch on rapid cultivation and early planting as the best and surest method of beating the boll weevil.

A Typical Letter from a Mississippi Negro Farmer

"I rite you a few lines in the gards of farming agricultur. I do say that your advice has Ben Folard, and your direcksion have Been o'Baid, and I find that I am successful in Life. Say, Mr. Knapp, I do know that there is gooder men as you and as fair as you, But o that keen eye ov yourse, that watches every crook in farming, that can tell ever man whichever way to Gro to be successful in Life. On last yer i folored your advice, and allso on yer Befor last. On 1908 i made 14 Bails of cotton, and in 1909 17 Bails. I started with one mule and now I own 3 head ov the great worthies. Thanks to you for your advice a Long that Line, and Great success in your occapation to you.

"Say, Mr. Knapp, I am a culered man. Live near Graysport, Mississippi. Corn a plenty, allso made a plenty of

Sweet Potatoes. But i read your advice aBout them. Will close. Yourse,

(Signed) Wm. Washington.

Hundreds of letters like this and thousands of reports from negro farmers doubtless caused Booker T. Washington to form the opinion which he expressed in an article in the *World's Work* for July, 1908, entitled, "Teaching a Man His Job." He said:

"If I were to name a single instance of this new policy of taking education to the man on the job, an instance which seems to me more thorough-going and more fruitful of good than any other of which I know, I should refer to the work that the General Education Board is doing in connection with the Agricultural Department of Washington, in order to instruct the farmers of the South, by practical demonstrations on their own farms, in the newer and better methods of cultivating the soil. No other single agency, I am sure, is destined to do more in the task of creating the New South."

The Difference Between an Experiment and a Demonstration

A state superintendent of public instruction went to Dr. Knapp after the Demonstration Work had been developing about two years, and asked his advice in regard to having some experiments conducted on the farms of the agricultural high schools in his State. Dr. Knapp told him that he might have some experiments and tests made over on the back side of the farm, preferably behind the woods, but after that was done it would be a good idea to have some high-class demonstrations made out in front, on the public highway, where the farmers could profit by them.

"Demonstrate the things which have been proven and established by the Department and the College Experiment Stations, and you will find that your high school farms have a real mission to your people," said Dr. Knapp. This advice had a far-reaching influence upon the state superintendent and his high schools.

Analysis of the Soil

Dr. Knapp was present at a large meeting of farmers, college men and school officers in Arkansas when a big-fisted, commanding looking farmer arose and said:

"What we farmers need is chemists to analyze our soils! If I send samples of soils from different parts of my farm to the Agriculture College they should let me know, in a few days, just what kinds of soils I have and then I'll know what to plant."

He spoke in stentorian tones and with apparent unction. A ripple of applause swept over the audience and the professors from the Agricultural College looked embarassed. By common consent all eyes turned to Dr. Knapp, who arose and spoke somewhat as follows:

"There are not enough chemists in the world to carry out our friend's idea and it would bankrupt our treasuries to pay the salaries even if we could find the chemists."

Then turning to the farmer speaker, he said:

"No, my friend, you wouldn't know what to plant when you got the report of the chemists. By the time he got around to your soil samples, made the analyses and sent his findings to you, the agencies of sunshine, rain and growth would have changed them to such an extent that the analysis would be practically worthless. Besides, you have plenty of chemists on your farm anyway. Every plant is a chemist. If your crops do not produce enough stalk and foliage, your soil wants nitrogen, if it does not fruit well it needs phosphorous and if the fruit is not finished perfectly more potash is required. Sometimes we fail to learn from the teachers who are nearest to us and all of us should sit at the feet of Mother Nature more and more."

It is scarcely necessary to add that the audience caught the point and cheered heartily, while the big magnanimous

Southern farmer politely arose and thanked Dr. Knapp for his helpful information.

The First Prize Trip Winners

In 1909, four Corn Club Boys took the prize trip to the nation's capital, visited the Department of Agriculture and called upon the Secretary and also upon the President of the United States. They were Ralph Bellwood, of Virginia; Bascomb Usher, of South Carolina; De Witt Lundy, of Mississippi, and Elmer Halter, of Arkansas. They were all splendid, manly, young fellows and were prototypes of the thousands who have taken trips to Washington, to the colleges and to the big fairs and expositions since that time.

In working out the itinerary, arrangements were made, by correspondence, for the Mississippi boy and the Arkansas boy to meet at Grand Junction, Tenn., and come along together. The Mississippi boy was accompanied by his county superintendent of education. They were due to arrive in Washington after midnight, and the county superintendent and both boys had the name of the hotel where they were to stop.

A representative of the Department appeared at the hotel early the next morning and asked the clerk if W. H. Smith, of Lexington, Miss., was registered there. The clerk said "No." The next question was: "How about DeWitt Lundy, of the same place?" The clerk said: "I have no such name." Then Uncle Sam's man became alarmed about the little fellow from Arkansas. In desperation he asked: "How about Elmer Halter, of Conway, Arkansas?" Just then somebody slapped him on the back and said, "Here I am." "How did you get here?" said the club man. "Oh, I had no trouble," said the little fellow. "When I came out of the

station last night I went up to a policeman and asked him the way to the hotel. He told me and I thanked him. I told him I was from Arkansas, and do you know, he came from there himself?'' ''Did you see anything of Mr. Smith and DeWitt Lundy at Grand Junction, Tenn., night before last?'' ''No,'' said Elmer, ''nobody got on there.'' It seems that the county superintendent got busy with official duties and decided to come on a later train.

''Well,'' said the Department man, slapping Elmer on the back, ''you are all right. I am glad you got through in good shape. Did you get a berth and sleep well on the train?'' ''No, sir,'' said the young Arkansas farmer. ''Do you know, the fellow wanted to charge me $2.00 for that bed? I sat up part of the time and slept in the seat part of the time. The Bankers' Association gave me $150.00 to make this trip and all that I save belongs to me.'' ''Well, how about your meals? Did you get your meals all right?'' ''No, sir; it took over a dollar to get a meal and I didn't eat anything until I got a chicken sandwich at Charlottesville, Virginia, for fifteen cents.''

When he started back he bought himself a shoe box full of food and returned to his home almost as economically as he came, but he had enough money saved out of the $150 to buy himself a colt, which grew into a valuable horse.

It was not many years until this thrifty young citizen was in partnership with his father under the name of Halter and Son, Farmers. They went into the thoroughbred seed and livestock business, and are thus doing a type of work which is not only profitable to themselves, but beneficial to their community.

A Corn Club Boy Talks with the President

When the 1910 prize winning corn club boys from the

Southern States, in company with Dr. Knapp and other representatives of his office, called upon President Taft, he was about at his maximum in weight, cheerfulness and good nature. He had a pleasant word for each boy and then had them sit down around him for a little agricultural conference.

Mr. Taft singled out the smallest boy in the crowd and said: "Ira, didn't your father give you the best acre of land on his place?" The boy told him that it was difficult for him to get his father's consent for him to have any acre at all, and that the one he did give him was not up to the average.

The next question was: "Now, didn't your father do a lot of that heavy plowing and cultivation?" The reply came promptly: "No, sir; I did every bit of the work myself in accordance with the rules of our Club." Then said the President, with a twinkle in his eye: "I guess your father told you when to plant and when to cultivate." "No, sir," said the boy, "the county agent did that, and my corn was the best on the place. It was better than my father had." Mr. Taft gave a characteristic chuckle and said: "If we can only get enough boys to do as you boys have done, it will not be many years until you will bring about a revolution in our agriculture and our civilization as well."

A Boy Helps His Father

"There was the case of the little boy in Georgia. He wanted to put an acre in corn, because all the other boys in the community were doing it under the Government agent's instruction. His father said he could not spare the acre of land and added:

'I don't believe in this new fangled book farming. I know more about it than those fellows in Washington.'

At last he grudgingly let the boy have an acre of land,

ground which under the father's system of farming had yielded nineteen bushels of corn. The boy went to work and obeyed implicitly all the orders of the Government agent, and the result was a crop of 85 bushels from that one acre. That floored the old man. He looked up the expert and said: 'I'll plant my land just as you tell me to. You know more about farming in a minute than I do in a year.' "

His Wife was a Helpmate

"In Alabama a farmer refused to devote an acre to the 'New fangled, farm idea,' but his wife said, 'John, we're mighty poor. We don't have any pleasures. We don't have any money. We couldn't be any poorer than we are now, and this new thing might help us out. Let us try five acres of corn.' "

"After she had begged for a week, he agreed to try five acres according to the Government instruction. But she was not satisfied with that. She had spent her life in the awful drudgery of a poverty which had been unlit by a ray of ease or rest, and she determined to make this new doctrine her last desperate attempt to achieve comfort and relief. She begged him to plant 40 other acres in corn, a patch of ground hidden from the neighbors by a strip of wood. He finally agreed to that. When the corn was shucked, that couple was in comfortable circumstances."

By a Mississippi Boy

"The nickel was given me by my school teacher for good lessons and good behavior for a small number of days, April 26, 1916. I bought a crippled chicken with my nickel and raised it to be a grown hen. I fed it on bread when it was small and on corn when it grew larger. She was a speckled hen of the mixed breed. We set the hen. I do not remember

how many chickens we had when they were sold, but I received $1.50 for them. I bought a pig with the money. It was a scrub hog. I kept it awhile and sold it for $9.36. I bought a heifer calf with the money that I received for the hog. She will be three years old in August, and now she has a heifer one year old last May, and a heifer calf one month old. My cattle are nothing but scrubs, but I hope to have something better some day, as my age is only thirteen years."

Van Palmetre.

"Monday, August 2.—Visited the home of Van Palmetre, the boy who now owns three heifers from the spending of five cents. I found Van's father and mother to be splendid people, who are interested in everything progressive. The home was immaculate, whitewashed inside and out and in perfect order. The furnishings were not expensive but selection showed good taste. Van is one of the neatest, most courteous boys, just a perfect little gentleman. His younger brother is almost an exact counterpart. Has such an ambition to follow in Van's footsteps. I saw the three heifers and took some pictures of Van and the trio of treasures. The two older ones are perfect pets but the younger member of the bovine family has not learned to trust the human race so completely. Van is planning to improve his herd by the use of pure bred sires. He is going to the Agricultural High School this winter. I shall watch his work with interest. Van's mother suggested the thrift idea and helped him engineer his first ventures as a financier. The little brother owns a cow and looks forward to making another enviable record.

In the afternoon of this day I gave a demonstration in the canning of tomatoes at the school building which Van had cleaned all spick and span.

Reported by County Home Demonstration Agent.

Starting a New Agent

A State Home Demonstration Agent had just employed a young woman, whom she knew very well, who had taken a four year's course in domestic science at the state university. In giving her some preliminary instructions the following language was used:

"Ruby, you have just finished a four-year's course along home economics lines, *forget it.* Concentrate your thoughts on the needs of country girls and country women in your county — fasten your attention on a country home of the poorer class; keep your eyes fixed on it until you decide what changes are necessary and what improvements can be made first. We must raise standards of health, sanitation and beauty. When you get your demonstrations going you will find that the whole plan of work will be a process of evolution and development. You will need to use your judgment often and be resourceful. Now, you will see why I told you to forget your college course. You cannot use the college methods of class instruction with your club members scattered all over a county. This is a new field of education that you are going into and requires a new type of teacher altogether. Of course your superior education will help you. You have greater ability and a wider horizon than you would have had otherwise. The longer you stay in this work the more valuable you will be because of your course at the university, but you cannot depend upon it now for the method of approach and the type of training necessary for success."

Simple Instructions Best

Once upon a time an ambitious boy, who hadn't had much chance to go to school, joined the Corn Club. He lived with his grandparents, and they grew up right after the Civil

War, so their education had been neglected. They were all so illiterate that they could not understand the bulletins and circulars which were sent to them. Every time the agent came around the boy had some questions to ask about the meaning of the language in the circulars of instruction. In this way he was learning more than the mere growing of corn. With the aid of the two old folks in the home, the boy made good progress all along the line. Finally, a letter came saying that all the boys should come to the county fair on a certain date and bring their exhibits.

This corn club boy got up early and went to the fair the first day. He was seen looking over the corn and studying the ears most carefully. After a while the agent came around and asked him for his exhibit. "Did you mean for us to bring in ten ears of corn?" said the boy. "I didn't know the meaning of "exhibit," and Grandpa and Grandma couldn't tell me. If you had only said, 'Bring ten ears of corn,' I could have brought some better than any that is here."

The other members of the club agreed that, under the circumstances, this boy might submit his ten ear exhibit on the second day of the fair. Suffice it, to say, he won first prize, but the agent said that he learned never to use the word *exhibit* when he meant ten ears. It is his opinion that in dealing with the public, it is best to use simple, plain, definite language.

Saving the By-products

One Georgia Club girl not only grew prize tomatoes, but sold enough of the greatest tomato pest — "the tomato worm," — to pay for working and harvesting the crop.

Two fishermen offered her a cent apiece for all the tomato worms she would bring them. In one week she turned in over 500 and got over $5.00. This kept up all season, and

when the supply of worms became scarce in her patch, she went to work in her neighbor's field.

Mrs. Moore of Alabama

From the County Home Demonstration Agent's Report.

"It gets at one's heart strings when the real story of this mountain woman is told. She was born, and reared in mountain poverty and had few opportunities as a girl. She married and lived until she was a grandmother in a rude cabin at the entrance of Big Cove. Few neighbors came by and her life was as dull and monotonous as life can be back in the mountains until she learned of a demonstration to be given at a school five miles away. She walked to that meeting and got a new vision. She went home and in her rude way tried to follow what she had heard that day. I shall never forget my first visit to her home. It was a three room house made of logs and clay chinked. The roof was full of holes and the floor bare and full of cracks. There were two beds in every room, home made beds of pine slats nailed together, and chairs of the same make. There were no screens, no window panes even and the only thing one could find that looked like a home was a row of canned fruit in a closet. She pointed proudly to that and told about the meeting she attended the year before when she learned to can.

I noticed four yellowed and worn Government bulletins hanging on the wall, and she told me they had been given her at that meeting. She had been afraid to leave them on the table for fear some of the children might tear them so they were nailed on the wall at eyes' level.

The neighbors came in and read them but she had never been able to lend one of her treasures. She listened eagerly to all that she could do if she joined a Home Demonstration Club

and agreed to follow directions. I have never seen a happier face, lighted by a desire to recapture the opportunities that should have been her youth's measure.

This mountain woman grew a wonderful crop of tomatoes on her 1-10 acre plot and raised vegetables as never before in her garden. She bought a canner and put all of them up. She sold them at a fine profit and invested in a good cooking range. Then she built up her chicken yard and grew some fine chickens making a profit on that. She never missed a meeting of the club, often walking miles to the meeting.

She won a free trip to the state demonstration short course at Montevallo this year. When told of this opportunity she said that it would be her first train trip since she married and in her quaint way said, "I can go, I still have one black dress saved." To tell of the new things that opened up to her would seem like a fairy story. During the week's stay at the college dormitory she was as eager as a girl and full of quaint humor, laughing at her rude manners, and always willing to learn the right thing. She went to every meeting and then inspected the college. Perhaps the thing that fascinated her most was the cows being milked by electricity. She wrote regularly every day to her children and grandchildren at home telling them of all the wonderful and new things she was seeing and hearing. When the day came for her to leave, great tears stood in her kind old eyes as she thanked everyone for being so good and sweet to her.

The next visit that I paid to her home I found her singing short course songs and canning while she tended a new grandchild. She showed me her thousand tin cans of tomatoes and beans for sale, then led me to see her home supply. It was the largest collection of canned vegetables, fruits and preserves I ever saw in any pantry.

Then she told me of how she had persuaded her husband to sell the poor mountain land and they were going to move down in the valley on a good farm. They had paid for it, had a nice new farm bungalow and she was the happiest woman I ever saw when she asked me to help her pick out some real furniture, the first she had ever owned. When the mayor of our town heard of her fine work, and she has been a faithful club woman, he offered to start her as large an orchard as we thought she could handle as a gift from the nursery. She is now preparing the land and the neighbors are all falling in line with her general progressiveness. She says she will be a Home Demonstration member until she dies.

The Spirit of the Demonstration Agents

The boll weevil was nearly across Alabama and approaching Georgia in the southwestern part of the State. A meeting of governors, commissioners of agriculture, agricultural college men, secretaries of chambers of commerce and entomologists was called in Atlanta. Dr. Knapp was invited. He was requested to bring some of his agents who had been fighting the boll weevil for several years. When the time came for the demonstration agents to be heard, Dr. Knapp gave a little preliminary talk and then introduced them one by one. Several of them had spoken and had given much details about the nature of the fight and the progress of the work. Dr. Knapp was not altogether satisfied because the history of the work had not been portrayed in its full scope and power. He nodded to G. W. Orms, one of his district agents, to notify him that he would call upon him next. After Mr. Orms came forward he spoke somewhat after this fashion:

"Many senators and congressmen have recently tried to claim the honor of having put Oklahoma statehood through

for the Indian and Oklahoma territories, but these gentlemen are not entitled to the honor of the statehood of Oklahoma as much as is the boll weevil in the Brazos and Trinity River valleys of Texas. These little beetles drove thousands and thousands of farmers from Texas into Oklahoma and increased the population of the two territories until Oklahoma had the required population which gave her statehood. This may better be credited to the boll weevils than to the leadership of any congressman. The boll weevil it may be said, was really a blessing in disguise to the farmers of Texas, for the farmers were compelled to produce a living at home after the advent of the boll weevil, and then it may be said with great truth that after the advent of the boll weevil in Texas the farmers were more resourceful than ever before.

When the Mexican boll weevil advanced across the Rio Grande River and approached the land of the Alamo and the San Jacinto, we, like Bowie, Fannin and Sam Houston of other days, organized our forces and met them face to face. We were forced backward step by step, but we left men on guard in every county while our state and district agents, as a skirmish line, kept fighting the advanced guard. With our breasts to the enemy we were forced down through the Brazos bottoms, across the great black, waxy belt of Central Texas, the wooded hills and valleys of east Texas and Louisiana, until we came with our backs to the Mississippi River, our faces to the enemies, and we had boll weevils in our hair.'

The speech brought down the house. Dr. Knapp went to him afterwards and said, "Orms, I am proud of you; you expanded their horizon and you had the martial spirit. That is the way to lead a fight."

We'll Live at Home

(Boys' Farm Club Song)

C. R. Hudson, Raleigh, N. C.

O, come on, boys, join in a song,
With much hilarity;
And we will show what we can grow
By brain celerity.
Hooray! Hooray! for brain celerity;
Its power is great, in any State,
To bring prosperity.

Corn Club

We'll grow the corn within our State,
To furnish all we need;
Then we'll not buy, at prices high,
But have a plenty feed.
Hooray! Hooray! we'll have abundant feed;
We'll have the corn we need.

Pig Club

Our pigs will grow into big hogs,
On pastures where they roam;
So we won't buy side meat so high,
But grow our pork at home.
Hooray! Hooray! Oh, we won't have to buy;
We'll grow fine hams to eat with yams,
For these will satisfy.

Poultry Club

Poultry and eggs are wholesome food,
That have a rural charm;
So we'll live well and only sell
The surplus from the farm.

Hooray! Hooray! Oh, we shall all live well,
For such supplies idealize
The homes in which we dwell.

Dairy Club

Good grass will grow throughout our State,
On mountain, hill and lea;
And cows eat grass, while on they pass,
And chew at night, you see.
Hooray! Hooray! Our cows will pay us well;
For they'll supply what urbans buy,
And make our pockets swell.

Rotation and Diversification

With sheep and goats, and wheat and oats,
Potatoes, geese and rye;
Vetch, clover, peas, alfalfa, bees, —
"Rotation" is our cry.
Hooray! Hooray! The State will be our pride;
For we'll rotate, be up-to-date,
With crops diversified.

Results

So with these things we'll build us homes,
In our old State so grand;
We'll educate, emancipate,
And own our homes and land.
Hooray! Hooray! We shall be glad and free;
We'll build a State, with people great,
Through brain celerity.

Gratitude

Then three cheers for that peerless sage,
Who taught us wisdom's ways,

We owe to him a diadem,
So ever sing his praise.
Hurrah! Hurrah! For S. A. Knapp, Hooray!
His Ten Commands help homes and lands —
Hurrah! Hurrah! Help for aye!

Keep the Club Work Growing

(Tune — "Keep the Home-fires Burning" —)

J. J. Murray of S. C.

I

There were Club Boys on the hillside,
There were Club Boys on the plain,
And the country found them ready
At the call for meat and grain —
Let no one forget their service,
As the Club Boys pass along,
For although the war is over,
They are singing still this song:

Chorus

"Keep the Home-cow milking,"
And the Club-corn silking,
Tell the idle boys and girls
We work for HOME;
There's a Club-pig growing,
While the grain we're sowing,
Boost the Club Work day and night,
Till we "LIVE AT HOME."

II

There were Club Girls near the roadside,
There were Club Girls by the wood,
And the country found them ready
At the call for "fighting food" —

Club members in bread making contest

A canning club girl starts a dairy

Property of
AUBURN UNIVERSITY

Let no one forget their chickens
As the Club Girls pass along,
And altho, the "bugs" are many,
They are singing still this song: —

Chorus

Keep the babe-chicks growing,
While the rooster crowing
Tells the idle boys and girls.
We work for HOME;
Push the yearly garden
While your muscles harden,
Fight tomato bugs and blight
Till we "LIVE AT HOME."

GIRLS' CANNING CLUB SONG

Ruby W. Bridges

(To the Tune of the "Old Gray Bonnet.")

Welcome, Welcome, friends and neighbors,
We are resting from our labors,
And of Dr. Knapp, we sing:
How his kind heart did the planning
That started all this canning
And a blessing to our homes did bring.
O, the soil we worked so steady,
And we got the seed beds ready,
Our county agent kindly sent us seeds.
With hoe and rake we tended,
And our labors never ended
Till we had our gardens free from weeds.

Chorus

We'll don blue gingham dresses
And put upon our tresses,
  Our little quaint Dutch caps, so clean and neat.
With aprons, white, to cover
Our gingham dresses over,
  Our toilet is complete.

Then when there was drouth, each daughter
Carried many pails of water
  And we kept our crop so rank and fresh and green.
And oft we looked them over
To see if under cover
  A little impish cut worm could be seen.
How carefully we raked them
We pruned them and we staked them,
  And when the happy harvest came at last,
We picked and packed and shipped them
For the frost had never nipped them
  And the culls into a separate pile we cast.

Chorus

Chow-chow, catsup, sauce and pickles
From the culls, the palate tickles,
  And the ripe fruit we canned in tin.
First we scalded then we peeled them,
Packed in cans and then we sealed them;
  Then cooked with all the flavor in.
Now, a record we'd been making
Of each step that we'd been taking
  And we balanced up our record books with care,

Then we wrote an essay of it
Of the work and how we love it,
Some put kodak pictures there.

Chorus

Our 4-H brand's perfection
And is used for our protection
Meaning heart and health, home, happiness, combined.
State Agent dear, we greet you,
We are always glad to meet you,
Round state and county chiefs are hearts entwined.
Our exhibits we are bringing,
Our hearts are glad with singing,
And tho we're young, we feel so very wise,
Without jealousy or grudges,
Take the verdict of the judges
When they award each prize.

A Corn Club Boy

Marion Jackson Hall, of Ga., 1913.

"Yes, I'm in the Corn Club,
I was in it last year, too.
If I don't make a peck of corn,
My reports shall all be true."
If I don't make the largest yield,
I'll make just all I can,
Somebody else may get the prize,
But I won't blame my land.
I can not lose, I do not fear,
I will not be ashamed,
I'll have my corn if not a prize,
So I am not to blame.

I'm going in the Corn Club,
I'm going to do my best.
If other boys will do like me,
We'll make some corn, I guess."

Two Little Poultry Club Girls

(Tune: "Two Little Girls in Blue.")

Two little girls at the county fair
Were asked what they could do.
Could they come up and candle some eggs
And grade and pack them too?
One little girl at the poultry club
Said she didn't know what to do
The other went at it and did it well.
Which one of these girls was you?
Two little girls at the county fair
Came to show what they could do
One had chickens in standard coops
And then some good eggs too.
One hung her head at county fair
Said "Nothing of mine would do."
The other won prizes and praises, too
Which one of those girls was you?

CHAPTER IX

THE LEVER ACT

THE DEMONSTRATION WORK was the inspiration of the Lever Bill. It created the demand for such legislation. Most of the congressmen from the South had seen successful work by county agents in their districts. Some of the northern congressmen had witnessed similar work because the Office of Farm Management in the Department of Agriculture had begun to extend the demonstration plan into several northern states. Furthermore, newspapers, magazines and farm journals had published many articles in regard to what Dr. Knapp and his agents were doing. Students of educational movements in this and other countries had written theses in regard to the motives and purposes of this plan of action. Educational associations had given it prominence on their programs and the founder, as well as his agents, had appeared to explain its principles and its methods. Bankers' conventions and business men's organizations were expressing approval, and even the Corn Club boys and the Canning Club girls had been called upon to tell the public of their achievements. The debates on the floor of the House and Senate and the hearings before agricultural committees clearly indicate what was in the minds of the lawmakers when this legislation was pending. Congressman Lever, himself, outlined the problem and gave the purposes of the proposed bill in the following extracts taken from his speeches and reports while his bill was pending:

"We have accumulated in the agricultural colleges and in the Department of Agriculture sufficient agricultural information which, if made available to the farmers of this country and used by them, would work a complete and absolute revolution in the social, economic and financial conditions of our rural population. The great problem we are up against now is to find the machinery by which we can link up the man on the farm with these various sources of information. We have expended in the neighborhood of a hundred million dollars in the last half century gathering together valuable agricultural truths. We have been spending 50 years trying to find an efficient agency for spreading this information throughout the country and putting it into the hands of the people for whom it was collected. We have tried the Farmers' Bulletin. We have tried the press. We have tried the lecture and the Institute work. All of these agencies have done good. They have been efficient in a measure, but there is not an agricultural student in the country who does not realize that the greatest efficiency is not being had from these agencies. This bill proposes to set up a system of general demonstration teaching throughout the country, and the agent in the field of the department and college is to be the mouthpiece through which this information will reach the people — the man and woman and the boy and girl on the farm. You cannot make the farmer change the methods which have been sufficient to earn a livelihood for himself and his family for many years unless you show him, under his own vine and fig tree, as it were, that you have a system better than the one which he himself has been following.

The plan proposed in this bill undertakes to do that by personal contact, not by writing to a man and saying that this is a better plan than he has or by standing up and talking to him and telling him it is a better plan, but by going onto his farm, under his own soil and climatic conditions, and demonstrating here that you have a method which surpasses his in results.

The system of demonstration teaching so far developed in this country has confined its activities to the work of teaching the adult farmer and in a limited way only, through the 'boys' corn clubs' and 'girls' tomato clubs,' the boys and girls on the farm. Your committee believes that this bill furnishes the machinery by which the farm boy and girl can be reached with real agricultural and home economic

training through the country schools. If rural life is to be readjusted and agriculture dignified as a profession as it should be and is, the country boy and girl must be made to know in the most positive way that successful agriculture requires as much brain as does any other occupation in life. The whole trend of our system of education is calculated to minimize agriculture as a profession. Its logical tenddency is to create a feeling of dissatisfaction with farm life and an ambition to get away from it. Such a situation is unfortunate; it is most dangerous. The farm boy and girl can be taught that agriculture is the oldest and most dignified of the professions, and with equal attention and ability can be made as successful in dollars and cents, to say nothing of real happiness, as any of the other professions. Your committee believes that one of the main features of this bill is that it is so flexible as to *provide for the inauguration of a system of itinerant teaching for boys and girls.*"

Another congressman who was known as a friend and promoter of the Demonstration Work in his state was Representative Hughes, of Georgia. Like Congressman Lever, the author of the bill, he had made a close study of the work being done by the county agents and had given them much encouragement. Later he was the author of the Hughes Bill for Vocational Education. One of the objects of his bill is to give better training to demonstration agents. He sketched the scope of the Lever Bill in the course of the debate in the following language:

"In my opinion Dr. Knapp, late of the United States Department of Agriculture, who extended this Demonstration Work in the South, has accomplished more directly for the farmer than all other agencies combined. He has carried pent up, inert, scientific information through his demonstrations to the man in the field. Wheresoever he has reached this man he has awakened his energies, his thoughts, his purposes, and that man is proceeding to-day with new life and brighter hopes. His land has been made to yield 100% more and his profit has been correspondingly increased. This bill proposes to put the Knapp demonstration plan into active operation in every county,

throughout the broad limits of this Union on a larger and broader scale."

When the first appropriation was made by Congress in 1904, to give special aid to do the work which Dr. Knapp was inaugurating, the act specified that the money was to be used for the purpose of fighting the boll weevil. In the passing of the years, the language was gradually expanded until provision was made for teaching and demonstrating better crop methods in general.

Under the gradual process of evolution of the county agency the time had really arrived by 1914 for more comprehensive legislation. Representative Rubey, of Missouri, gave an outline of this development in the following quotation taken from his address in Congress in favor of the Lever Bill:

"Farm Demonstration Work is not a new and untried experiment. It has been thoroughly tested and the results are known. For many years Farm Demonstration Work has been carried on in the South and more recently in widely scattered counties in the northern and western states. The work in the South was carried on under the direction of the late Dr. Seaman A. Knapp, the founder of Farm Demonstration Work in this country. A number of years ago the boll weevil attacked the cotton fields and threatened the extermination of the great industry. The Government came to the relief of the people; it began to cooperate with them in their fight against this pest. Dr. Knapp took charge of this work, and under his direction men were sent into the territory infested. It was soon found that the only successful way to fight the boll weevil was by improved methods of cultivation and by diversifying the crops; that instead of raising cotton and cotton alone, the farmer must learn to raise a variety of crops which the boll weevil would not attack."

Congressman Adair, of Indiana, epitomized the situation as follows:

"There is no more important work for the agricultural institutions of the country than that of strengthening field service, demonstrations and instruction, to the end that the promotion and

development side of agriculture shall balance its investigational and research activities."

Mr. Rubey still further defined the progress of farm demonstration work and also took a dip into the future in the following language:

"The agents of the Government, acting in hearty cooperation with the state and local authorities, went upon the farms and by actual demonstration showed what could be accomplished by certain improved methods of cultivation, by rotation, by fertilization and by diversifying the crops. Thus began the work of farm demonstration, and so successful has it proved that methods of agriculture have been revolutionized, and to-day the name of Dr. Knapp is a household word throughout the Southland."

"This measure is sure to become a law. Like other great bills, it will bear the name of its author, the distinguished Chairman of the Committee on Agriculture, Hon. A. F. Lever, of South Carolina. It will be known far and wide as the Lever Bill. Future generations as they study the Acts of Congress will discover standing out in bold relief above all other great statutes, the Morrill Act, establishing state agricultural colleges, the Hatch Act, establishing experiment stations and the Lever Act, establishing the cooperative agricultural extension work, which is but another name for Farm Demonstration Work."

A magazine writer recently said that Justin Morrill will be remembered for the tariff act bearing his name, but real historians will remind generations to come of the service rendered to agriculture and education by Morrill, Hatch and Lever.

One of the most remarkable things in connection with the discussion of the extension bill by Congress, is the insight and scope revealed by the members of the law making body. When it is realized how many thousands of bills they have to consider, it is refreshing to read their interpretation of such legislation. They realized that the Demonstration Work contained ideas and principles which would grow and expand.

They saw the importance of the seed which had been planted. They realized the necessity for its cultivation. Some educators who were really closer up to the problem seemed to have their vision somewhat obscured by the proximity. This was not true with the members of Congress who gave the most thought to the situation and prospect.

In outlining the scope of the work, the ultimate democracy of the whole scheme was considered. They did not depend upon the old hackneyed theory of educating the leaders only, in the fond, but fallacious hope, that they would educate the rest. They could see that every demonstration would stimulate others and that, by and by, all might become demonstrators. It is a fact that, in some communities, every farm and every home is demonstrating some phase of the work. Of course all cannot reach the ideal in a short time, but all can make progress towards it and when that condition exists, the elements of life and growth are there. This eventually means reformation.

Senator Cummins, of Iowa, gave a graphic description of his conception of the working plan of the bill in the following language:

"If it is thought that this bill is intended to educate only the particular farmer upon whose land the demonstration is made, there is error somewhere. I do not understand it so. The demonstrator goes to a farm, selecting in a community a farm best adapted for his purpose, and begins his demonstration, but that is intended to educate the community. It is intended to extend the information to all those who may live thereabout and who will come to see what has been done and to learn how it was done."

Representative McLaughlin, of Michigan, also, states the vital provision of the proposed Act in the following paragraph:

"This bill provides for practical work. It provides for the taking out to the people in such a form that they can understand and make practical use of it, the results of the work of the Department

of Agriculture and the agricultural colleges in the country, many of which were established and are in part maintained by aid from the Federal Government."

Likewise Congressman Young, of North Dakota, gave accurate definition in these three sentences:

"This is an epoch-making measure. It provides for teaching agriculture on the farms of the nation. It enlarges the work of the colleges; in fact, it makes every farm a classroom."

During the period of 1912-13 and 14, when this bill was up for discussion in Congress, and before the country, the Demonstration Work for women and girls was being rapidly developed. As already stated, the Girls' Clubs began in 1910 and the women began their special home demonstrations in 1913. Those who had been associated with Dr. Knapp knew what he thought as to the ultimate aims and objects of the whole plan. They knew that he wanted every member of the farm family to be engaged in this new educational enterprise. It is very significant, however, that congressmen, at that early date, expressly stated that the benefits of this act should be received by the farm women. The author of the bill, himself, had a vision of the farm home and its improvement. He realized that the highest order of instruction and encouragement should be given to women and girls on the farm. His bill marked a new era of developments along this line. It caused a re-arrangement and redirection of work in the United States Department of Agriculture and in all the co-operating colleges. It had an indirect and reflex influence on the public school systems and other educational institutions throughout this country.

Mr. Lever in reporting his bill from the Committee on Agriculture, to the House of Representatives, used the following language:

"Your committee commends to the special attention of this

House that feature of the bill which provides authority for the itinerant teaching of home economics or home management. This is the first time in the history of the country that the Federal Government has shown any tangible purpose or desire to help the farm woman in a direct way, to solve her manifold problems and lessen her heavy burdens. The drudgery and toil of the farm wife have not been appreciated by those upon whom the duty of legislation devolves, nor has proper weight been given to her influence upon rural life. Our efforts, heretofore, have been given in aid of the farm man, his horses, cattle and hogs, but his wife and girls have been neglected almost to a point of criminality. This bill provides the authority and the funds for inaugurating a system of teaching the farm wife and farm girl the elementary principles of home making and home management, and your committee believes there is no more important work in the country than this."

Mr. Haugen, of Iowa, said:

"All are agreed that with prosperity on the farm we have prosperity in the city, in the shops and the mills, and with close times on the farms we have close times in the cities, crumbling banks and factories. All our interests are in common. We go up and down together. Why not take this important step? Why not provide, in this bill, for education in home economics? — not simply in cooking, but in every science conducive to making home better and more attractive?"

In the course of the discussion in the upper House, Senator Smith of Georgia remarked:

"It extends to work in the home also, in the line of domestic science; but it certainly is not expected that the instruction shall be given exclusively to persons upon whose land or in whose house the instruction is given."

Congress not only broke away from tradition in the endorsement of a new method of education and its application along new lines in the homes as well as on the farms, but the judgment of the lawmakers went further in seeing that the matter of distribution should be taken care of as well as production. It was well nigh impossible for farm

and home demonstration agents at that stage of advancement to realize what a large part they must eventually have in the standardization and marketing of farm products; both by individuals and groups. In recent years there have been many successful examples of the marketing of cattle, hogs, sheep and poultry, and various farm crops in carload lots. It takes a long time to impress lessons of standardization. After that is done and after the general principles of marketing have been worked out and announced, the county agents, both men and women, will be able to have large influence in guiding and aiding the people to a more systematic and successful sale of their products and purchasing of their supplies. In fact, some of these field workers, who have been squarely up against the problem, have worked out their standardization and marketing problems for themselves. When distribution difficulties are finally met and overcome it will be found that the extension workers have had a large share in the operation. Consumers and producers will profit thereby. The fact remains, however, that this country had not seen the possibilities along this line when the debate on the Lever Bill was in progress in the halls of Congress. Congressional foresight is evidenced by the following extract from the speech of Representative Adair of Indiana:

"To teach the farmers the best methods of increasing production is exceedingly important, but not more so than is the importance of teaching him the best and most economical methods of distribution. It is not enough to teach him how to grow bigger crops. He must be taught how to get the true value for these bigger crops, else Congress will be put in the attitude of regarding the work of the farmer as a kind of philanthropy. The itinerant teacher or demonstrator will be expected to give as much thought to the economic side of agriculture — the marketing, standardizing, and grading of farm products —as he gives to the matter of larger acreage yields. He is to assume leadership in every movement, whatever it may be, the aim of which

is better farming, better living, more happiness, more education and better citizenship."

Senator Smith had a similar outlook and stated it as follows:

"We see a vast permanent work for these trained leaders in agriculture to do throughout the country when we shall have one in every county, not only to demonstrate the scientific truths developed at the colleges, experiment stations, and at the Agricultural Department. One of their most important functions will be, when the Agricultural Department fully develops its market division, to aid in the cooperation of farmers toward the better preparation of their crops for market, toward bringing closer together consumers and producers, toward not only helping to increase the volume of products, but toward bringing that produce into a condition where the farmer himself will receive a higher profit, and yet at the same time the consumer be able to obtain his food supply even at a less cost."

The relationship between the Department of Agriculture and the various landgrant colleges, as provided in this Act, constitutes a different arrangement to the Morrill, Hatch, Adams and Nelson Acts. It is made co-operative in the new act, because Congress desired to preserve its own work so well established. There is a proviso specifically protecting the farm management work and the farmers' co-operative demonstration work, pending the inauguration of the co-operative extension work. There seemed to be a feeling, also, that information and help that the Department might be able to furnish in the future should be available to the farmers and their families. Congress was specially anxious, too, to see that the funds should be applied to the purpose in hand. The act emphasized field demonstrations; it provided that no part of the funds should be used in purchasing buildings, renting lands, teaching or lecturing in colleges, promoting agricultural trains, or any other purpose not specified in the act. The limit of 5% on printing was fixed and at one time

it seemed as if Congress would prescribe that at least 75% of all the funds should be used in paying salaries and traveling expenses of men and women county agents. This last amendment was eliminated upon the assurance that the tendency was in favor of spending more and more money in the counties, and that it would be best not to impose too many restrictions.

The hearings before the Agricultural Committees, as well as the expressions on the floor of the two Houses, bring out clearly the co-operative relation provided in this bill which makes it different in its control and operation from the other landgrant acts.

Secretary Houston defined this relationship when he appeared before the House Committee on Agriculture. He said:

"The Department is to give information; the colleges are to give information, and there is no reason why they should not cooperate in giving the information that they separately secure or secure in co-operation.

I believe that there is the key to the whole matter, and *the most admirable feature of it is that provision which requires them to set their heads together to devise a plan for getting this information to the farmers and have an agreement beforehand. And I cannot see any possible danger of the invasion of anybody's rights.* If it is legal and wise for the Federal Government to make an appropriation to be used in cooperation with the states, it certainly is legal and wise for the Federal Government to take pains to see that that money is expended for the interests of the people. And that is all this provision does. The only question that could be raised, it seems to me, as to the concentration of power and legality, is whether or not the Federal Government ought to appropriate the money. It does not seem to me that any question can be raised as to the wisdom and necessity of this matter after the money has been appropriated.

Now, as to the machinery. As I interpret the Act, it contemplates that each state shall devise its own machinery, shall have

something like an office of extension or demonstration work, and shall have its staff of workers who shall reach every farmer in that state. Now, it goes without saying that a state institution ought to be able to get into more intimate and easy touch with the farmers in its own state than the Federal Government can possibly do.

Therefore, it seems to me wise that provision should be made that the state shall develop this machinery. But the Federal Government has a responsibility. In the first place, it has information that it wants to give out; in the second place, the Federal Government proposes to make an appropriation, and it is desirable that it should have machinery to see that that is carefully and wisely expended, and it does not seem to me to be wise and adequate to provide merely that after the money is expended there shall be an audit; a post mortem does not secure the best results, and it does not secure the most desirable end. The thing to do is to have the two work in close harmony, put their heads together, and adopt a plan for getting their two sorts of information to the people."

Dr. W. O. Thompson, of Ohio, chairman of the Executive Committee of the Association of Agricultural Colleges, endorsed this provision very strongly. He said:

"It looks to us as if we should get closer together, with a better organization, a more efficient expenditure of money, and a better understanding than ever before. These colleges and stations are the places where the Federal Government has been pouring the money — 50 years in the colleges and 25 years in the stations. . . . The Federal control of its own money is an essential problem and a very practical situation. If any criticism could be made of Federal expenditure for 50 years in the colleges and stations, I should say that it could be directed against the lack of careful supervision of the expenditure of its money. . . . Now comes along the extension field, which admittedly is the largest area, and therefore the least subject to supervision, in which it is proposed that before the money is expended the Department of Agriculture, representing the Federal Government, and these colleges, representing the state governments, shall get together in a friendly council and lay out the projects, and provide, as far as human agencies can provide, for the wise, economical, and efficient expenditure of this money. Gentlemen, it seems to me that that

feature of the bill is the wisest feature of the whole matter and ought to commend itself to state and Federal agencies alike. And so, speaking for the Association of Agricultural Colleges, I should say without hesitation that that is a very desirable and wise feature."

Several succinct statements by congressmen serve to clinch the general agreement to this proposition.

The following extracts are from the addresses of Senators Smith of Georgia, Sterling of South Dakota, and Representative Hughes of Georgia. They still further define the plan for co-operation.

"The bill provides that a plan for the work must be submitted by the college of agriculture to the Department of Agriculture here, and receive the approval of the Secretary of the Department, or else for the next year not a dollar can be drawn from the public Treasury."

"The essence of this bill is cooperation — cooperation between the Agricultural Department of the Government and the agricultural colleges of the State; cooperation imposed and enforced by law. By plain implication, if not by express terms, this is the condition of the grant, the basis upon which the appropriations of the bill are made."

"The Lever Bill will cause such cooperation between state and Union, through the agricultural colleges, accelerating and intensifying agricultural education by the only method that can possibly reach the adult farmer. He will hear, but he must see to be convinced. Demonstrations convince, and arouse latent action and inspire hope, and progress is the result."

The executive committee of the American Agricultural Colleges and Experiment Stations was active in promoting extension legislation. Farmers' Institutes, movable schools and agricultural trains had been promoted by these institutions. The farmers' institute workers had organized an association in 1896. In 1903 a specialist on farmers' institutes was appointed by the United States Department of Agriculture, and assigned to the office of experiment stations.

This officer has made studies from time to time of the various kinds of extension work being done by the different colleges. In 1904, the college association appointed a standing committee on extension work and in 1909 a section of extension work was formed. Thus it is seen that two parallel lines were forming which promptly converged and merged into this new legislation. With these centers of interest developing, it was to be expected that various proposals for legislation should be brought forward. Congressman McLaughlin, of Michigan, introduced a bill on December 15, 1909, which was somewhat similar in its provisions to the Lever Act. Senator Dolliver, of Iowa, introduced a bill the next year which incorporated a plan for extension work. The Dolliver bill, however, was an omnibus measure and provided for agricultural education, vocational training and work in the trades and industries, generally. Certain antecedent bills had been consolidated and the result was a rather elaborate proposal.

In 1911, Congressman McKinley, of Illinois, introduced a bill somewhat similar to the McLaughlin bill. It is interesting to note, however, that the basis for the apportionment of funds for the McLaughlin bill was one cent per capita of the total population. The McKinley bill provided for the initial appropriation of $10,000 per state and that further apportionment should be upon the basis of acreage of arable land. The Lever bill provided that the apportionment to any state should be made upon the proportion that the rural population of that state bears to the rural population of the United States at the next preceding census.

Most of the bills along this line, which were offered the first two or three years, met the same fate. They died in the committee rooms. They did not die in vain, however, because they contributed to the general interest which was

rapidly developing. While there had been other bills offered in other years looking to some form of extension work, none of them made any considerable progress. For this reason attention is here given only to the bills which were somewhat similar in their provisions and which were looking to the same object. These bills all practically contributed to the same purpose. They developed sentiment.

It was nearly five years from the time of the first introduction of the McLaughlin bill till the passage of the Lever Act. In 1912, however, sixteen different bills on this subject were submitted. Senator Smith of Georgia introduced a bill in the Senate which was very similar to the one which Mr. Lever introduced in the House. Mr. Lever's bill passed the House and Senator Smith accepted the Lever Bill in lieu of his own. When it was brought up in the Senate, however, the Page bill, which was similar to the Dolliver bill of 1910, was substituted for it. Both bills, therefore, failed for that session. The next year, Messrs. Lever and Smith introduced their bills with certain modifications. This time the Lever Bill passed the House and when it went over to the Senate it was substituted for Senator Smith's bill, pending there, and passed. It was signed by the President on May 8, 1914. Thus was written upon the statute books a law which confirmed and ratified the excellent work already in existence, and also looked to the further development of this great work in the future. Its scope is as broad as the prairies, and as high as the mountains. It provides an ever expanding horizon. If the development keeps up at the rate it has started, a half century will reveal the greatest and most helpful organization of its kind in history.

It was in the minds of the congressmen to render a service, not only to the people in the country districts, but

to the whole population. Everybody gets benefits, either directly or indirectly. It is a great plan for the advancement of civilization and it is destined to be an object lesson to all the nations of the earth.

The Lever Act

AN ACT to provide for co-operative agricultural extension work between the agricultural colleges in the several States receiving the benefits of an act of Congress approved July second, eighteen hundred and sixty-two, and of acts supplementary thereto, and the United States Department of Agriculture.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That in order to aid in diffusing among the people of the United States useful and practical information on subjects relating to agriculture and home economics, and to encourage the application of the same, there may be inaugurated in connection with the college or colleges in each State now receiving, or which may hereafter receive, the benefits of the act of Congress approved July second, eighteen hundred and sixty-two, entitled "An act donating public lands to the several States and Territories which may provide colleges for the benefit of agriculture and the mechanic arts" (Twelfth Statutes at Large, page five hundred and three), and of the act of Congress approved August thirtieth, eighteen hundred and ninety (Twenty-sixth Statutes at Large, page four hundred and seventeen and chapter eight hundred and forty-one), agricultural extension work which shall be carried on in co-operation with the United States Department of Agriculture: Provided, That in any State in which two or more such colleges have been or hereafter may

be established the appropriations hereinafter made to such State shall be administered by such college or colleges as the legislature of such State may direct: Provided further, That, pending the inauguration and development of the co-operative extension work herein authorized, nothing in this act shall be construed to discontinue either the farm management work or the farmers' co-operative demonstration work as now conducted by the Bureau of Plant Industry of the Department of Agriculture.

Sec. 2. That co-operative agricultural extension work shall consist of the giving of instruction and practical demonstrations in agriculture and home economics to persons not attending or resident in said colleges in the several communities, and imparting to such persons information on said subjects through field demonstrations, publications, and otherwise; and this work shall be carried on in such manner as may be mutually agreed upon by the Secretary of Agriculture and the State agricultural college or colleges receiving the benefits of this act.

Sec. 3. That for the purpose of paying the expenses of said co-operative agricultural extension work and the necessary printing and distributing of information in connection with the same, there is permanently appropriated, out of any money in the Treasury not otherwise appropriated, the sum of $480,000 for each year, $10,000 of which shall be paid annually, in the manner hereinafter provided, to each State which shall by action of its legislature assent to the provisions of this act: Provided, That payment of such installments of the appropriation hereinbefore made as shall become due to any State before the adjournment of the regular session of the legislature meeting next after the passage of this act may, in the absence of prior legislative assent,

be made upon the assent of the governor thereof, duly certified to the Secretary of the Treasury: Provided further, That there is also appropriated an additional sum of $600,000 for the fiscal year following that in which the foregoing appropriation first becomes available, and for each year thereafter for seven years a sum exceeding by $500,000 the sum appropriated for each preceding year, and for each year thereafter there is permanently appropriated for each year the sum of $4,100,000 in addition to the sum of $480,000 hereinbefore provided: Provided further, That before the funds herein appropriated shall become available to any college for any fiscal year plans for the work to be carried on under this act shall be submitted by the proper officials of each college and approved by the Secretary of Agriculture. Such additional sums shall be used only for the purposes hereinbefore stated, and shall be allotted annually to each State by the Secretary of Agriculture and paid in the manner hereinbefore provided, in the proportion which the rural population of each State bears to the total rural population of all the States as determined by the next preceding Federal census: Provided further, That no payment out of the additional appropriations herein provided shall be made in any year to any State until an equal sum has been appropriated for that year by the legislature of such State, or provided by State, county, college, local authority, or individual contributions from within the State, for the maintenance of the co-operative agricultural extension work provided for in this act.

Sec. 4. That the sums hereby appropriated for extension work shall be paid in equal semiannual payments on the first day of January and July of each year by the Secretary of the Treasury upon the warrant of the Secretary of Agriculture, out of the Treasury of the United States, to the

treasurer or other officer of the State duly authorized by the laws of the State to receive the same; and such officer shall be required to report to the Secretary of Agriculture, on or before the first day of September of each year, a detailed statement of the amount so received during the previous fiscal year, and of its disbursement, on forms prescribed by the Secretary of Agriculture.

Sec. 5. That if any portion of the moneys received by the designated officer of any State for the support and maintenance of co-operative agricultural extension work, as provided in this act, shall by any action or contingency be diminished or lost or be misapplied, it shall be replaced by said State to which it belongs, and until so replaced no subsequent appropriation shall be apportioned or paid to said State, and no portion of said moneys shall be applied, directly or indirectly, to the purchase, erection, preservation, or repair of any building or buildings, or the purchase or rental of land, in college-course teaching, lectures in colleges, promoting agricultural trains, or any other purpose not specified in this act, and not more than five per centum of each annual appropriation shall be applied to the printing and distribution of publications. It shall be the duty of each of said colleges annually, on or before the first day of January, to make to the governor of the State in which it is located a full and detailed report of its operations in the direction of extension work as defined in this act, including a detailed statement of receipts and expenditures from all sources for this purpose, a copy of which report shall be sent to the Secretary of Agriculture and to the Secretary of the Treasury of the United States.

Sec. 6. That on or before the first day of July in each year after the passage of this act the Secretary of Agricul-

ture shall ascertain and certify to the Secretary of the Treasury as to each State whether it is entitled to receive its share of the annual appropriation for co-operative agricultural extension work under this act, and the amount which it is entitled to receive. If the Secretary of Agriculture shall withhold a certificate from any State of its appropriation, the facts and reasons therefor shall be reported to the President, and the amount involved shall be kept separate in the Treasury until the expiration of the Congress next succeeding a session of the legislature of any State from which a certificate has been withheld, in order that the State may, if it should so desire, appeal to Congress from the determination of the Secretary of Agriculture. If the next Congress shall not direct such sum to be paid, it shall be covered into the Treasury.

Sec. 7. That the Secretary of Agriculture shall make an annual report to Congress of the receipts, expenditures, and results of the co-operative agricultural extension work in all of the States receiving the benefits of this act, and also whether the appropriation of any State has been withheld, and if so, the reasons therefor.

Sec. 8. That Congress may at any time alter, amend, or repeal any or all of the provisions of this act.

Approved, May 8, 1914 (38 Stat. L., 372).

CHAPTER X

SELECTED SAYINGS

IN selecting excerpts from some of the most important deliverances and publications of Dr. Knapp, preference has been given to those which bear more directly upon the demonstration work. These have been classified and presented in chronological order, as far as feasible.

Many readers will doubtless wish for fuller copies. It is gratifying to read them just as Dr. Knapp presented them, but in a volume of this kind it is impossible to incorporate so much.

It will be found that these quotations have a certain logical sequence, and in their cumulative effect, they drive home the fundamental points of his philosophy. Thinkers and workers will find an ever recurring source of help and joy in the re-reading of them.

FROM AN ADDRESS ON "THE NEW EDUCATION." 1883

"The charge against classical education is that it does not fit a man for any place in active life. While it trains the memory, the reflection, and the reasoning, it puts out the eyes and stops up the ears."

"Nothing upon the crust of the earth, or in the depth of the sea, or in boundless space is exempt from the scrutiny of the scientist. He has cutivated the organs of sense to the uttermost and then added to them. To the eye he has added lenses and tubes till he can look at his atom or survey a star. He has multiplied the sound receiving capacity of his ear and has drawn his tongue into a copper wire until he can converse indefinite miles. He has lengthened his fingers to pick up shells on the bottom of the ocean. We owe to

science, also, a debt of gratitude for teaching men to tell the truth. It scrutinizes, and sifts, and refines till it arrives at the fundamental facts of truths. This is a kind of personal training necessary for men of business."

"The great need of the many is a more scientific and practical knowledge of the common things of life; to the masses the philosophy of the cottage is more important than that of the palace, and the result of the battle between force and matter of deeper moment than one hundred Waterloos. The great captains of the future must marshal the hosts of industry upon the farm and in the workshop."

"Any education that does not include the social is defective in a most important and useful department of knowledge. This marvelous fabric, human society, has a wonderful history. How few know anything about it. Ask the average college graduate about the social conditions of our Saxon fathers, in the middle ages, their houses, methods of living, clothing, furniture, highways, fences, the price of lands and products, their amusements, etc. How many can tell? Yet, all of these are necessary in forming a proper estimate of the past. How many college graduates know that at the commencement of the reign of Elizabeth the majority of English yeomanry lived in houses with a single room, with no chimneys, the smoke escaping through a hole in the roof. They slept upon the floor without pillow, they ate from wooden benches; the great bulwark of our modern civilization, domestic comfort, the elevation of the home, were unknown."

"Citizenship imposes upon us the responsibility of ultimate decision upon all the great questions of government. Any education that does not prepare the student for an honorable citizenship is entitled to such respect only as we give the dead, and should be laid to rest with its kindred ashes in the catacomb."

FROM ADDRESS AT IOWA AGRICULTURAL COLLEGE. NOVEMBER 9, 1884.

"The whistle of the plow-boy, the tumult of trade, the rumblings of engines, the music of the water wheel, the din of hammers, the rattle of looms, rise in a grand chorus of industry all over the land. These are the living evidences of the power of faith and hope."

"The broad statesman, the profound scholar, the zealous re-

former, the men who organize liberty and found republics, who plan moral revolutions and lead the forces, have positive convictions. They believe in mankind, in the great future, in the ultimate triumph of principles, in the immortality of spirit, in the enduring character of God. It does not require any great strength of intellect to destroy or to doubt."

"The Supreme Ruler seems to place such stress upon enduring purpose that he has subjected all men to a test, and I have sometimes thought that the great ordeal was that of poverty. Cold and hunger are terrible reagents. They bring out the gold from character or they waste and destroy it. Such is the crucible into which men are thrown when the people have need of great leaders, statesmen, scholars or reformers."

"A nation that is able to endure all things can never despair. When Hannibal was encamped about Rome, the Romans appraised the land occupied by his army and sold it for building lots."

"Purity is the sublimity of the soul; it is the fortress upon the summits of human nature, into which we are led by taking hold of the hand of God; or hold it by our eternal vigil."

"The uncommon thing, the thing that startles us as unexpected and out of place is honesty. Our apparel is a fraud, from shoe to hat, paste, paper, starch and shoddy are freely used to give the appearance of a costly vesture at the expense of substantial fabric and durability. Clever imitation of grand carpetings cover the floors of our homes; cheap copies of the masterpieces of great artists hang upon our walls, alum is mysteriously transformed into flour, sulphuric acid into syrup, stone into sugar, lard into butter and glucose into honey."

"This artificial man, clothed in deception and fed on fraud, enters into society to deceive his employer, to gamble in options, to water the stock of banks and railroads, to defile the ballot box and pollute the fountains of justice. The most imperative demand to-day in all the lines of life is for honest men. We need honest laborers to faithfully perform the duties assigned them in the diversified industries of this great nation. We need honest mechanics to construct our houses, weave our fabrics and manufacture the products upon which the commercial prosperity of our people depends. Such is the urgent demand for honesty that men are everywhere searching

for it. Scarcity makes it costly. It commands more in the market than education, genius or skill. As an investment it yields the largest per cent; it is a treasure that indicates a prince."

"The unfolding bud, the silent carpeting of the earth with living green, the vast workshop of nature where force is struggling with the atoms, the trembling crust of the earth, the rolling ocean, the solemn march of worlds through infinite space, the eternal vigil of the stars — these are exhibitions of power. The secret of power is knowledge. Knowledge uncaps the wheels and turns the mainspring; it steps upon the engine and seizes the lever; it bands the continents with iron; it transmits its commands under the ocean; Oh! it is grand to enter the arcana of God and converse with the Infinite. Yet the possession of knowledge is nothing when compared with character."

"The advent of Christ aroused and intensely excited the believing world. He took ignorant men from their fishing smacks upon Galilee, and in three years, gave them such an education and such a preparation for effective work as no college has ever been able to duplicate."

"The highest attainment on earth is a perfect manhood. Christ came not to make angels, but to make men — men of his own royal type. He died not to glorify us hereafter, but to glorify us here. The hereafter is simply a sequence of the here."

AT MISSISSIPPI AGRICULTURAL AND MECHANICAL COLLEGE. JUNE 30, 1894.

"Wealth lies in the utilizing of waste. Our city gas works were frequently run at a loss till the by products became of value — coal tar, naphtha, carbolic acid, paraffin and the aniline dyes. Our canned meat industry could not exist were it not for the profits derived from the offal in leather, curled hair, combs, buttons, butter, glue and fertilizers. In the waste of the farm is the fortune of the planter. If the insects and the harmful seeds could be converted into poultry and eggs; if grasses could be turned into beef, mutton and wool, if the waste of forest could add its contribution to the general good; if the apple, the peach, the pear, the plum and the cherry could everywhere be substituted for roadside thickets, brier patches and hillside coverings, it would be the inauguration of the millennium of agriculture. Applied science is to discover how these can be profitably utilized."

"Skill is the result of intelligence and practice. The man not trained to think, to observe carefully, to remember, to reflect, and to reason cannot attain great skill, except the work be subdivided and limited to the capacity of his brain, as in the large manufacturing establishments. This cannot be done in agriculture. Labor is scattered over the farm and if unskilled it becomes enormously expensive, by reason of misdirected energy, lack of judgment, and cost of superintendence. To an industrially trained young man skill is almost an intuition. It does not go through a slow process of mental reasoning. The eye grasps the object lesson, the memory retains it, and the hand is trained to execute. This vigilant eye enables him to observe the short way of doing things."

"Is it more important that the farmer should speak classic English, or that he shall understand the principles of agriculture and be skilled in the tools and machinery of the farm? Be he ever so highly educated, he will lapse into unclassical English when he pounds his thumb-nail through lack of skill."

"I know a well educated blind woman. She had recently completed a course in natural history; on examination her instructor handed her a stuffed red squirrel and told her it was an elephant. She felt it over carefully; at length, running her fingers along the tail, a gleam of intelligence lighted her countenance and she remarked, 'Oh yes, this is the trunk.' To-day there are hundreds of men pulling at the tail of a squirrel and think they are leading the elephant."

"Now let us have an education of the masses for the masses, one that will fit them to become a great, honest, faithful, intelligent, toiling, thrifty common people, upon which great nations alone are founded; obedient to orders, but not servants; tenacious of right, but not anarchists."

"Had I the power I would excerpt from the common school curriculum all readers, which are mainly filled with the gilded thought of stage and forum, all histories which overflow to the margin with dates and battles, and with heroes who differ from ordinary scoundrels only in the magnitude of their crimes, all geographies, dealing in the romance of climate and situation, and the hyperbole of wonderful production; then substitute for them truthful readers, about common people, and the things of nature; histories of our own com-

monwealth; simply the outlines of geography with the main divisions and how to study it. I would add spelling, penmanship, the general principles of our language, arithmetic, oral lessons in morals and in the principles of our Government. This would give time for lessons in domestic economy, hand craft and farming all thoroughly taught, but in an elementary way. This should constitute a common school education, free to all and compulsory to all. Outside of this let all education be voluntary and be paid for by the individual. Do I object to higher education? A thousand times, no; but I do object to this universal effort to build second stories without any first, and all at public expense."

"For once in the history of civilization let us have a common people thoroughly trained within the lines of their duties, full of science of how to get a living, refined, courageous, and loyal to Government and to God."

"Our labor system is extravagant. The laborer resides in a hired house, at a high rent, and lives out of the store, paying in some cases 50 per cent profits; the family as a rule contribute nothing to the support provided by the husband and father. His remedy for all shortages is higher wages or a strike. Wages in the ongoing of the world will decline, must decline. How can the laborers meet it? Training will help, but there must be greater economy. The future laborer must own his own house and a plot of land, where he produces most of the food for his family by the aid of the family. Reduce the hours of labor to eight and the wages correspondingly if necessary. Miles of territory around every manufacturing city should be occupied with the vine-clad homes, of the thrifty wage-earners. Every manufacturing company should supply these homes at cost, to be purchased by the employees on a rental system, thus making labor permanent, economical and independent."

"In some portions of the Union nearly every town had a small woolen factory, where wool could be exchanged for cloth. Silently and unobserved the country mechanic has removed to the town and the town factory has been removed to the city. Towns have grown enormously in wealth and population at the expense of the country, cities have suddenly expanded into kingdoms, and octopus like, have extended their arms around the nation."

"The small factory has given place to immense establishments,

Making and using time and labor saving devices

An annual meeting of Home Demonstration Agents

UNIVERSITY OF CALIFORNIA

which employ thousands of men; the mechanic owns no land, has no settled habitation and is a toiler of fortune. History repeats itself; we have returned to the baronial conditions of the middle ages. The great lords of manufacture are seeking to repress labor and crush the smaller factory, labor combines and demands a larger share of the common plunder."

"The planter needs to reduce the cost of transportation; the laborer to provide the homes and cheaper living; the merchant wants the country air. What opposes? Roads — bad roads."

"The most highly civilized nations of Europe have encouraged most the construction of highways. In road-making we are dwarfs in the nineteenth century; the Romans are looking over our heads. Our towns and our cities are united by railways; but our farmers, our yeomanry, traverse a cow path in dry weather and a canal in wet weather."

"It is more than 270 years since the experiment of American farming was commenced by some of the most enlightened people of Europe. With what results? During this long period the roads have not improved; the average farm house is without architecture or comfort and its environments without flowers or landscape; the patchwork farm grimly watches a contest between the man and the brier, with the chances in favor of the brier."

"We are trying to harmonize a democracy of men with a monarchy of business. We do indirectly what we cannot do directly. We boast of equality before the law and charter corporations which make all men unequal under the law."

"If anyone thinks this is visionary or impractical, stop right here. The most important department in war is the commissariat. More armies have been outflanked by hunger than have been broken by bayonet charges; more men are wounded in the stomach by malnutrition and succumb to disease than are disabled by rifle or gatling. Modern wars are largely battles of exchequer; peace or war are determined by Wall Street, Threadneedle and the Bourse."

THE NINTH CONFERENCE FOR EDUCATION IN THE SOUTH AT LEXINGTON, KENTUCKY. MAY 4, 1906.

"Others advocate an improvement of rural conditions, better highways, better schools, free rural delivery, country telephones,

more newspapers; all very good and worthy of commendation. Still others call for more Farmers' Institutes and additional agricultural colleges. Excellent suggestions; but every highway may be as good as a Roman road, with a free rural delivery mail box and a telephone at every crossing, and the box stuffed with newspapers; you may hold a Farmers' Institute at every third house and establish an agricultural college on every section of land in the United States, and the flow of young men from the country to the city will not be arrested in the least, so long as the earning capacity of the average city laborer, or clerk, or professional man, is at least five-fold of what the same talent can command in the country."

"This is the key to agricultural reform; more power and better machinery on the farm, and more accomplished in a day, heavier mules and more of them. Away with the half-a-mule farmer and convert the one-mule farmer into a four-mule farmer. What revolutionized manufacturing in the United States and made us the first of productive nations? More power and less hand work. What will hold the boys on the farm and multiply the wealth of our farmers? More power and less hand work."

"Fifty years since the mechanical industries were hand crafts, slow, cumbersome, non-remunerative. The transformation was not made by placing books on the value of steam and electricity in the common schools, but by building factories all over the country and absorbing the business. The machine harnessed to power showed that it could do better and cheaper work than done by hand methods. Old methods were swept away, and lo! we are leading the world in mechanism. The sewing machine, the mower and the reaper have come into general use, not by writing books about them, but by placing them in the hands of the people for trial."

"The question of successfully interesting the farmers is a personal equation. First, they must have some knowledge of the men who are managing the movement and make out the instructions. Second, the men who act as field agents must be practical farmers; no use in sending a carpenter to tell a tailor how to make a coat, even if he is pretty well up on coats. The tailor won't follow. The farmer must be a recognized leader, progressive, influential and able to carry public opinion with him. Public opinion is brought into harmony and made forceful by the support of the press and the cooperation

of the best farmers and the leading merchants and bankers. Generally a committee is organized of three of the best progressive farmers and three merchants and bankers of standing, who hold monthly meetings at the call of the traveling agent, and greatly assist in carrying out the reforms. It is a good policy to insist that a small demonstration be taken by the most noted dry goods box whittler in the village, if he does any farming, and if he has a garden induce him to make a test on a few feet or rods square; if he succeeds, he is one of the best advertising mediums known, and will take more pains to show his success than ten business men. About the poorest cooperator for our purpose is the stock man with a very large farm. He has too much to do and does not generally give the demonstration personal attention. The intelligent small farmer is the best cooperator."

"There are many farmers who are well informed on agricultural subjects; they have been well educated; they are intelligent, progressive and thrifty; but they are widely scattered and not sufficiently aggressive for the public good. They must be sought out, organized, and their influence used to the limit. It simply requires leadership."

"There are other helpers. Convince the owners of farms who reside in town that there is a way to get more rent; drive home the thought to the merchants that low earning capacity limits purchasing power; circumscribes trade and casts the constant shadow of uncertainty upon the day of settlement; awaken the banker to the fact that it is unwise to loan to men who farm the best land on a fourth of a possible crop, and poor lands on a tenth; it is banking on unthrift and discounting doubtful paper with poverty endorsement; convince and arouse this land proprietor, this merchant and this banker, and they will not only give their influence, but will insist that all their tenants adopt the new methods. Country papers want something to talk about and they will open their columns to the gospel of agriculture."

"Human society in its organization presents this peculiar phase; some of the primary groups appear to be attached to no system of influence and hence cannot be reached influentially except by direct contact. Rural society in the South is largely upon this plan. There is a public opinion emanating from and molded by the limited num-

ber in the canton, but rarely reached or moved by the larger public opinion of the State or the nation, and then only by personal contact. The general viewpoint is one of doubt and suspicion. If, however, one of their number can be induced to plant a trial field, all will watch it closely, and if he succeeds the people will at once swing from a stubborn doubt to an unreasoning faith, and they become the most zealous of converts. After you have proven your work for two or three seasons some way it is noised abroad among these people, and they are ready to accept it at the first opportunity."

"It is an easy proposition to enlist the masses in the army of reform, if wisely managed; but impossible; if undertaken along the lines usually pursued. Frequently the first farmer in a community where a demonstration is to be made is secured by furnishing some improved seed and showing how to plant and work it so as to maintain its vigor and enable him to sell seed to his neighbor. With success in his first trial he becomes an earnest advocate of the cooperative plan. Thus the influences gather force and soon the reform has attained mighty proportions and a state has been revolutionized."

"Science loudly boasted its power to unfold the mysteries of the soil; it grandly pointed to the water, the atmosphere and the sunbeams and claimed the power to harness these to the chariots of agriculture, and bring to the earth a wealth of production, fabulous and inconceivable; but science in its relation to agriculture has, as yet, been mainly a beautiful dream and a gilded vision. So far as the masses are concerned, it is a failure of application and not of merit. Relief came, but in a way never anticipated by the people. The people expected relief by some miracle of finance, a relief without toil, the bounty of the nation or the gift of God. But when told that permanent help could only come by human effort, that they must work out their own salvation, just as prosperity, liberty and civilization can never be donated to anyone, but must be wrought out, fought out and lived out, till they are part of the being of the people who possess them, they were amazed."

"In 1886 a movement was made to settle a tract of land in southwestern Louisiana, as large as the State of Connecticut, with sturdy immigrants from the northwestern States. Thousands of circulars were issued and hundreds of prospective settlers came. The natives of the country were stock men. They were not farmers,

and without exception they did not believe those lands were productive, or could be made so, and they took pains to tell this to every inquirer."

"The immigrants supposed, of course, that the natives knew, and we suddenly found that settlement was impossible. I recall a carload that cost me considerable trouble to secure. They arrived in the afternoon, heard the natives talk, and left before I could see them in the morning. In this emergency we resorted to demonstration. By making large concessions, a thrifty and energetic Western farmer was located in nearly every township, under an agreement to do his best. As soon as they were fairly established, and able to prove anything, immigrants were taken to their homes where they could see things. From that time our immigration movement was a complete success, and to-day thirty thousand settlers are ready to tell you that it is the most prosperous portion of the South. We then learned the philosophy and the power of agricultural demonstration. Many of the poor Acadian natives, who had not tilled the soil, had never attended school and could not speak a word of English, were converted by demonstration and are to-day wealthy farmers. More than 1,000 farmers are depositors in the banks of Lake Charles, Louisiana. Of this number over 600 are natives and some are accounted among the best farmers and the most wealthy citizens of this section. Such are the possibilities of demonstration."

"War has become a problem of finance. The wars of the future must largely become economic wars and the invading forces will be an army of industry. The nation of the greatest and the most economic production will win."

"How are these things to be procured without such reform? By reading about it? By better schools? By more taxation? It is impossible to raise much revenue by doubling the assessment of a cipher or depending upon the voluntary contributions of poverty. The widow's mite went a long way in intention; but fell infinitely short in actual cash."

CONFERENCE FOR EDUCATION IN THE SOUTH AT PINEHURST, NORTH CAROLINA. MAY 30th, 1907

"It takes a long time for a people to recover from sweeping disasters, and it takes longer when nine-tenths of them have but slight knowledge of thrift."

"The credit system has been a potent factor in depressing agriculture. To some extent it might have been a necessary evil in a limited way forty years ago, but it prospered and became dominant, oppressive, and insolent. It unblushingly swept the earnings of toil from the masses into the coffers of the few. It substituted voluntary for involuntary servitude, ownership by agreement and poverty by contract under fear of the sheriff for the ownership by birthright and a government by proprietary right. So we have lived under a slavery where the chains are ingeniously forged and the bands riveted with gold."

"Another class of reformers is prescribing 'diversification of farm products' as a remedy. Diversifying is a great aid to success in agriculture under certain conditions; but how can the man who has nothing diversify? He cannot go into dairying nor stock farming, because he cannot buy the fraction of a cow or pig. He cannot plant new crops, because the merchant regards the move as an experiment, and he will not advance on an experiment. The only way such farmers can prosper is by remaining in the old rut and improving the rut."

"I have been talking about common schools. In our portion of the United States there are no common schools. They are most extraordinary schools. The children are given science lessons, language lessons, social economy, French, Latin, drawing, vocal and piano music, etc. Possibly later they may learn to read and spell. I asked the patron of one school how the pupils progressed in Latin. He replied, 'Very well, indeed. The only difficulty is that they are required to write their translations in English, and they do not know how to write English.'"

"Farm renovation and maximum crop production are now fully understood, and they can be explained and illustrated in such a simple and practical way that it would be a crime not to send the gospel of maximum production to the rural toiler. It is said by some that the farmers are a hard class to reach and impress. That is not my experience. They are the most tractable of people, if you have anything substantial to offer — but they all want proof. They do not take kindly to pure theories, and no class can more quickly discriminate between the real farmer and the book farmer than the men who till the soil. The message to the farmers must be practical and of easy

application. Who shall take this message? Our experience is in favor of farmers of fair education and acknowledged success on the farm. They may make mistakes, from a scientific standpoint in delivering the message, but these are easily corrected. The main thing is to induce the farmer to act, and no one can do that like a fellow-farmer. Of what avail is it that the message be taken by a man of science, if the farmer will not give heed? In general, it is not the man who knows the most who is the most successful, but the man who imparts an implicit belief with his message. The greatest failure as a world force is the man who knows so much that he lives in universal doubt, injecting a modifying clause into every assertion and ending the problems of life with an interrogation point."

"Agricultural banks should be established to assist in carrying out the plan of colonizing the country with thrifty home owners. Furthermore, it is equitable, because while millions produced by the farms of the nations have, by the process of banking, been transferred in commerce, no way has been provided, under the law, by which the money of the people can be used by the people for time investments in providing for ownership of rural homes — the royal right of American sovereigns and more honorable than the Order of the Garter or the Golden Fleece."

STATE TEACHERS' ASSOCIATION OF SOUTH CAROLINA, JULY 1907

"Our large cities are danger places on the map of our republic. Homes are so costly that only the rich can own them — the poor and even those of considerable earning power are tenants at will. The industrial enterprises are vast and it requires enormous wealth to handle them. Each supports an army of employees — all dependent upon a managing will."

"The true representative of liberty is the man who owns his farm home in the country. He is not obliged to vote for his job and his segregation breaks the spell of mass leadership. He stands for an independent political unit instead of the mass units of cities."

"In New York there are at least 100,000 men so completely dependent for a day's bread upon a day's toil that they are compelled to cast their votes for a job, and there is another hundred thousand unavoidably influenced by their jobs. This we may call mass com-

pulsion. There is, also, where great numbers are aggregated, a mass leadership regardless of wealth. Generally this represents organized and predatory poverty."

"We must have the richest training. The greatest schools for the human race are our homes and the common schools — not our colleges and universities — greatest in amount and value of the knowledge acquired. A country home, be it ever so plain, with a father and mother of sense and gentle culture, is nature's university, and is more richly endowed for the training of youth than Yale or Harvard."

"Peerless among all teachers is that high priestess of the home, whom we know as mother. She inspires as well as instructs. Next to her in work and worth are the common school teachers. They supplement the home training and lay the foundations of knowledge along the lines of wisdom. The greatests event in human life is the awakening of the infant intellect."

"We all recognize the great value of higher education and believe in colleges and universities. They have their work and it is noble; but it is just as out of place to put part of a university into a common school as to put a common school into a university. A university can only be a tandem attachment — what is needed is to widen the common schools by broader instruction in common things. The young farmer who breaks his harness upon a lonely road blesses the teacher who taught him to always carry an extra string. Any quantity of Roman history in the head is not equal to a string in the pocket for mending broken harness. A landlord sometimes attempts to supplement deficiencies in food and service by a band of music, but there is no music for a hungry man like a well-cooked meal."

"The greatest of all acquisitions is common sense. Common sense is simply a wide and perfect knowledge of common things and how to use them."

"Fundamental to all this and infinitely more important is the crop of boys and girls in the country; the kind of men and women born, raised and molded under rural conditions. Shall they be great, strong, earnest, true and potential characters, or shall they be weak and trifling?

"Some families have been intellectual and vigorous for generations; some nations inherit and transmit potency. Are these due

to accident, or training, or climate, or inheritance? Blood and racial characteristics are a wonderful heritage, but training is the great item which fashions a race. The seed of the cotton may be thoroughbred and of choicest selection — it will not produce the fleecy bolls if the plant is allowed to stand in the grass. The blood of a noble ancestry goes down before inherited wealth and a dissolute training as the tender grass before the whetted scythe."

"Most of the rich men of the United States were born poor. They rose above their fellows, not by superior genius, but by greater thrift."

"Training can do much towards making a people so prompt and alert that the baneful word to-morrow will cease to be a part of our business language."

"I am ashamed of the young man who is afraid of toil, and I pity the girl who keeps soft, white hands. Let the young man glory in his rugged physique and let the young woman be proud of the common things she can do and not of her delicate hands."

"Everywhere throughout the country there is a shocking lack of mechanical knowledge and skill. It is shown in the buildings, the fences, in the general farm arrangements and in the machinery. For success upon the farm a knowledge of mechanics is second in importance only to a knowledge of agriculture. Mechanical knowledge and skill should come like common sense through absorption by placing engines, machinery, and tools in the hands of children. Some of the most skillful engineers and carpenters and blacksmiths never consciously served an hour of apprenticeship. No farmer can afford to send for a mechanic to attend to the minor repairs — they must be done by the men on the farm. Attached to every country schoolhouse should be a room for the practices of mechanics. The use of tools is a necessary part of common education. It will give mental direction as well as skill.

"Not to know the thing with which we come in daily contact is dense ignorance."

"I know a professor, who for twelve years walked through a small pasture where a choice herd of Jersey cattle grazed, and never noticed an animal. At the end of that period he inquired of a friend what kind of cattle they were and who owned them. He probably would never have noticed it he had not run against a cow."

"Teachers! You must help create sentiments of thrift and establish habits of industry or this nation will drift to wreckage. The greatest opportunity in the history of the world for the molding of a strong people and the establishment of a mighty nation will culminate in disaster if we discard such corner stones as labor and thrift. Idleness and lack of thrift will undermine intellect, weaken physical vigor and personal courage, and waste the fairest heritage that ever fell to the fortunes of men."

"Politeness is the material expression given to human kindness."

"There is many a man planning to sell his paternal acres in the country for a pittance and invest the proceeds in a cottage in the town — and then earn the support of his family by daily toil. It is the act of an irrational man. He does not stop to think that that farm will give him a home and support and soon quadruple in value. He fails to note the possibiltiies of rapidly increasing his wealth by the planting of valuable trees, and he voluntarily exchanges the rights of a king and the privileges of a freeman for a daily wage and the badge of service."

"If we have no more time than necessary to become perfect in the knowledge of one country, let that country be our own. Study the history, the language, the soil, the climate, the animals, the birds, the plants and all the conditions that make for home success and comfort. If still there be inclination, leisure and means, then extend the researches into foreign lands."

"What can you, teachers, do to help our rural conditions? Everything. You are an essential part of the greatest of all universities — the home. You have charge of the extension courses. You can inspire in youth a love of knowledge and make all its avenues look delightful. You can unlock the books, which are treasure houses of human wisdom, and give them a golden key. You can cause the soil to become more responsive to the touch of industry and the harvest more abundant to meet the measure of a larger hope. You can add to the comforts of the home, shape its environment into lines of beauty and increase its attractiveness, till the home shall become the greatest magnet of our people."

"You can create a love of investigation and give it direction. You can enlarge the knowledge of the people in common things and thus lay the foundation of common sense. At your instance, fingers

will touch the lines of deftness, mechanical skill will become universal and thrift and alertness will transform the toilers into captains of industry."

"Your mission is to make a great common people and thus readjust the map of the world. The keystone of American civilization is the home; by some mysterious social convulsion it has become loosened; you can reach it from the pedestal of the common school, push it to its place and cement it in a way that will be enduring."

FROM YEARBOOK OF AGRICULTURE, FOR 1908

"A prosperous, intelligent, and contented rural population is, therefore, essential to our national perpetuity. The world's experience has shown that the best way to secure this is to encourage the division of all the lands into small farms, each owned and operated by one family."

"There are two ways to look at a small farm. One view — the common one — is that it is a place to make a living, but rather a hard place, and should be sold as soon as anything easier is found; the other is that the ownership of the land is a mark of honor, that a patent to land is a title of nobility, a right to sovereignty."

"The great objections to the single-crop system are that it limits knowledge, narrows citizenship, and does not foster home building, but does promote commercial farming. It lacks the element of safety; if the one cash crop fails, everything goes — living, clothing, and all. It might be asked why the many small farmers of the South did not diversify their crops. Farmers cannot produce any cash crop they like. It must be something recognized by the local market, and the large planters make the local market."

"A lowering of country life drives out the better classes just as an inferior coinage usurps the place of the more valuable."

"The practical and sane way of accomplishing the result is to induce the farmers to try better methods and note the result in improving their farms, — to make tillage less expensive and production more certain, to double the crops to the acre and halve the cost. While the farmer successfully solves the problems of the farm his experience widens and he becomes a broader man, till he is broad enough to size up the whole situation and has the means to execute his plan. As men broaden they have higher aspirations

for their children, and better scholastic education will accompany the general uplift."

"Nothwithstanding these adverse conditions there has been a great improvement in the South in the last twelve years, due in part to the general prosperity of the country and in part to the heroic efforts of her people. They have put forth almost superhuman efforts to reconstruct upon that basis what was left, to rebuild what of value has been destroyed, and to create whatever was necessary to round out the best civilization of the age. No people ever worked more heroically and with greater unity of purpose.''

"We speak of 'the sovereign people.' Are they to be sovereign in fact or only in theory? If in fact, then each citizen must own and control something. In a sense he must be lord, of a certain territory. This territory, is called a farm, but legally it is a subdivision of the state, to which the farmer has perpetual title in order that he may have the means to support his position as an independent sovereign with dignity and by absolutely governing a small portion of the United States learn to assist wisely in governing the whole."

"This education of the farmer upon his farm by working out problems in the field and receiving the answer in the crib or granary is, like all education, a personal matter, and each man must acquire it for himself. This points to the small farm, personally worked, as the best for the man, for the land, for society and for the state."

"Education is what a human being absorbs in a usable form by experience, by observation, and from oral and written instruction. The world's most important school is the home and the small farm. To secure the best results the small farmer is forced to diversify his crop and to have a personal knowledge of all details relating to the farm. For safety he must get an income from a variety of products because a single crop may fail in yield or meet a non-responsive market. This wider range of products broadens the knowledge of the farmer and in the natural course of training he becomes skilled in the management of soils, cereal and grass crops, fruits, forests, domestic animals, farm machinery and farm improvements. He is forced to be a student of markets and of the art of buying and selling to the best advantage; he learns the requirements of society and the advantage of cooperative effort. Cooperation may com-

mence with an exchange of labor with a neighbor because he is short-handed, and it may be extended until there is cooperation with several in buying and selling, in promoting better highways, schools and churches, and in the general uplift of the neighborhood."

"Many persons with slight acquaintances with books are perfect encyclopedias of the common and exact knowledge so useful in everyday life."

"Communities of small farmers tend to promote common honesty, a respect for the rights of others and for law. No one is rich enough to dominate his neighbors or so poor that his influence may be disregarded. The stock, products, and property of all are alike exposed to trespassers and depredators; hence, a common interest unites them for mutual protection and the primary lessons of society are thus taught."

"It has been observed for years that the sons of small farmers develop managing ability. From their earliest years they are compelled to do things and to act independently. It is from this source that the greatest number of managers of the various enterprises of our country have been drawn."

"Some plan should be devised and framed into law by which the farmer may participate in the use of an equitable portion of the vast time deposits of the people's money at a moderate rate of interest and upon such securities as he possesses. This would open the door of opportunity for thousands of thrifty toilers to seek and establish rural homes."

"By every means possible the great dignity of land ownership should be impressed upon the men and youth of the present generation; but mere reiteration whether verbal or printed, will not accomplish the object. There must be real dignity; that is the men on the farms must have character, manliness, education and energy. The farms must show by their improvements and judicious management that they belong to that type of men, for the improvements are the visible expressions of what is in the man."

MEETING OF AGENTS IN DEMONSTRATION WORK, MACON, GA., SEPTEMBER 16, 1910.

"We have tried to think out the plans of the demonstration work carefully and lay them along lines of practical utility; to form

a substantial basis of evolution or revolution for changing the conditions of the common people, especially among our rural population."

"Also, take another proposition — that farming cannot be successfully carried on in any country without live stock. I have noted how the nations as the lands advanced in price, have changed from tillage crops to grass crops. When I was a boy three-fourths of England was under tillage. To-day less than one-fourth is under tillage, and the population has multiplied many fold."

"Mark you, speaking of the better thing: It takes about 19 pounds of clover a day to sustain a 1,000 pound animal. No profit; simply a case of keeping the machinery running and at the end of a year you have simply sustained life. Your profit lies in getting that animal to eat some more. If it can eat and digest 20 pounds you make a profit on 1 pound. The 19 pounds is waste to run the the machinery. Now, the animal that can consume and digest and assimilate 21 pounds is worth twice as much as the animal that can consume 20, because with the animal that consumes 20 pounds you make a profit on 1 pound and with the animal that consumes 21 pounds you make a profit on 2 pounds, and so it goes on in proportion. If you get the animal to consume 20 pounds it is worth ten times as much as the animal that consumes only 19 pounds. Profit lies in the best. This is true in every way; whether in the case of a horse, or a cow, or a citizen, the profit is in the best."

"Keeping stock in the future must be more of a problem of pasture and hay than of grain. Grain is too strong as a main food and too expensive. It fevers the system, and, therefore, we must have grasses and luscious pastures — well drained, not old sour grass, but an abundant pasturage, sweet and nutritive, so that it is a pie counter to the animal. We must do more intelligent farming."

"Modern farming is going to require more power on the farm. The time when a man could get a living with the hoe has passed. Labor has become too scarce and too high priced and the demand of living now is of too high a grade."

"And you may take the whole animal kingdom, even up to men, and you will find only a small per cent first class. We want to change these things and it is your problem to help change them, beginning with the lower orders, but ultimately to change the men

An attractive farmstead

so that greatness shall be common among the common people of our country. How are you going to do it The old system of education was to educate the top."

"If the home lacks culture and the boy fails to get the right training there is a weak spot in his character that no future teaching can help very much."

"I have seen namby-pamby boys, tied to their mothers' apron strings and taught Latin and Greek, sent out into the world. Poor little puny things! Why, I would rather take a street boy that can knock his way through the crowd; I would rather risk him in the battle of life than that namby-namby boy. We don't let our boys and girls learn how to manage."

"The costliest animal in the world is a man or woman. They cost in treasure, cost in care, cost in human anxiety. Yet, we shorten human life by neglect. The average age or span of life and a possible one are wide apart. My ideal of education is that of practical sense, leadership. Get that sense into a boy and he will take up farming, and if he knows a few fundamental principles he will apply the rest. Teach him the importance of knowing a few things well, of system and thrift. Education really means a leading out, we make it a stuffing in. Try to teach the child to lay by his knowledge on a certain shelf in the brain ready for use. Not one person in a thousand has put his thoughts or facts in a definite brain niche, so that when he wants that knowledge he can reach out and take that knowledge and use it. Farmers must be orderly. Farms are simply an outward indication of what kind of brains the farmer has. There is no such thing as poor land. It is the poor brain of a thoughtless man on top of the supposedly poor soil. No matter how poor the land appears, it can be made profitable if the farmer knows how and has the will power to carry it out. Try the system of education that makes men as well as farmers."

"Get down to where people can understand, touch the bottom and lift."

"Our project would have been sufficiently ambitious if we had said; 'We will increase the wealth and give the people greater earning power.' But other things that we teach incidentally are that we must improve the moral tone; the moral conditions and the whole prosperity of the people, to try to turn all avenues of the wealth

that we create into the proper channels so as to create a better people. But even this is not quite enough. We may have wealth and social prosperity, and home comforts, and not be a high-minded, stalwart, courageous and brave people. We must teach that."

"I want you to feel to-day that you have hold of one of the greatest lines of social uplift and development and greatness that exist."

"But you are beginning at the bottom to influence the masses of mankind, and ultimately those masses always control the destinies of a country. If you allow their practices to sink lower and lower the country must ultimately drop to a lower level in its moral, political and religious tone, and we go down into degradation and infamy as a nation; but if we begin at the bottom and plant human action upon the rock of high principles, with right cultivation of the soil, right living for the common people, and comforts everywhere, and make wealth and prosperity all through the rural districts, the people will lend their support and all civilization will rise higher and higher, and we shall climb to the summit of human excellence and become a beacon light to all nations of the world. I do not glory in the wealth of a few, but rejoice in the general distribution of wealth and prosperity for the common people."

SOUTHERN EDUCATION ASSOCIATION, CHATTANOOGA, TENNESSEE, DECEMBER, 1910.

"A large proportion of the vast wealth created annually from the soil ultimately enriches the city, instead of developing and improving the resources of the country."

"A love for the soil is not created or enhanced by the study of a book on agriculture, or any pedagogic lessons in soil manipulation. It is founded on an intelligent and successful farm life and the environment of an orderly and thrifty country home. The pupil at this stage is not thinking about tendencies any more than the nursing child thinks about growing. He is simply developing.

"The most failures in farming are on the business side and not on the scientific side."

"A town farm, and especially a farm owned by the public, can never be economic. It might be healthful because the public would laugh at it."

"Agriculture in most sections consists simply in a series of motions inherited from Adam."

"Agriculture cannot be acquired from a book nor from object lessons. These may be illustrative and helpful, but are insufficient. Instead of object lessons where the teacher demonstrates and explains, there must be doing lessons where the pupil demonstrates by his own labor."

"An idle saint only differs from an idle sinner in a coat of paint and direction. He does not harm, but is full of the virus of nearly all wrong doing, idleness, and the time is liable to come when the direction will be mistaken or forgotten and the natural rottenness of leisure will have its sway. Abolish idleness, and we have struck at the root of vice. Every man should be employed. The idle should be treated as criminals. Every woman should have full occupation, and every child over six years old should have a little work in proportion to his strength and all labor should be of the useful kind and helpful to the family, or the community, or the world. I see about the towns boys 16 to 18 years old who know nothing of plants or tools and have never done a real day's work. It was not thus in the olden times."

"The lessons in domestic science should be such as are directly applicable to the farm; the better home should be the farmhouse; the better cooking should be the simple, homely but nourishing dishes of the farm. I recall an instance where an effort was made years since to establish a school of domestic economy in connection with an agricultural college. The lady in charge made a preliminary report, by items, showing that it would be necessary to expend twelve hundred dollars for kitchen equipments. The simple foods she expected to prepare to demonstrate her work could only be afforded by the rich, and, if eaten regularly, would kill a bear. Plain, sensible women who understand the requirements of rural homes, should be placed in charge of domestic economic instruction. Such a woman in every township could be of infinite help to the people. While she lectures to the pupils about foods and clothing and the laws of health, she could be a means of infinite good to the farmhouses by suggestion and direction."

"Equal facilities should be afforded girls in the lines that will fit them to take charge of a household."

"Every lesson taught in the school should be immediately applied to the farm and home."

"The great battles of the future will be industrial battles. England, Germany, France, Japan and the United States are putting forth every effort to gain industrial advantage."

"If by any process of training, it matters not how costly, we could implant in the American youth a universal love of industry and a universal knowledge of agricultural and mechanical arts they would blend with our native genius, skill and ability to do masterful things, and Americans would become the industrial arbiters of the world."

ADDRESS TO MEMPHIS BUSINESS MEN AND FARMERS IN 1910.

"You can grow cotton in the South, boll weevil or no boll weevil."

"We have just begun to raise cotton. The next 22 years should see the crop double, as it did in the past 22 years."

"Anyone who says 'Let us get out of cotton' is uttering cheap talk.' "

"The only safe plan is to produce a cash crop, for your bank account, and at the same time produce your provisions on the farm."

"If you do not intend in the future to get all you can out of the soil and out of your labor, sell your plantations now."

"The progress of the world is the enslavement of machinery The man who is successful will use more machinery and fewer men."

"The South can raise four times what it does at present, and increase the net profit ten per cent. If you should even double the crop you could own the world and go fishing."

"Destroy confidence in farming and you put dynamite under your cities."

"Publicity is a great thing for the farmers."

"You should all get agricultural religion. If you don't you will go to agricultural hell pretty quickly.

MISCELLANEOUS

"From an economic standpoint the greatest problem before the people of the United States is, what shall we eat and how shall we prepare it?

The annual cost of food for our now eighty millions of people is, in round numbers, about four billions of dollars. Any considerable saving in cost or increase of energy at the same cost amounts to millions. Twenty-five per cent reduction in annual cost of food, which is entirely practicable, amounts to a saving of one billion of dollars. Here it is shown that a woman's spoon, in matters of finance, is greater than a statesman's exchequer. We are entering into competition with the nations of the world for industrial supremacy. How can we succeed unless we introduce economy into the field of our greatest expenditures? How can we compete with people who secure equal energy at one-fourth the cost?

For many years I have been deeply impressed with the importance of some radical change in the dietary of the American people. The prevalence of dyspepsia and other effects of mal-nutrition first called my attention to necessary changes in food supply and its preparation for general health. Further inquiry gave a wider range to my investigation until I arrived at the following conclusions:

1st. That as a people we use too concentrated foods and consequently eat too much.

2d. That we use too much fat. Fat is a concentrated form of energy adapted to the requirements of a vigorous life. The general use of machinery has greatly increased the number of persons who live by moderate exercise and has reduced the expenditure of human force in all classes of labor. Hence there should be a decrease in the amount of fats consumed.

3d. The living of all classes of Americans is too expensive. It is purchased without reference to its nutritive value, its digestibility, or its adaptation to the requirements of the body under special conditions of life, consequently there is an enormous waste of food."

"I have heard with pleasure in this convention speeches and resolutions in favor of establishing cotton mills in the South until every pound of cotton produced within her fair domain shall be transformed by the magic of spindle and loom into fabrics of value for the marts of trade. Did it occur to the eminent speakers that, however desirable such a result, its achievement is impossible under present conditions? Why? Because we now import from the North immense quantities of wheat, beef, pork, butter, cheese, and other food products. The question is simply this: Is it cheaper to transport

the food for the operatives in cotton mills from its northern base to the cotton centers of the South, or to ship the cotton bale to the food centers of the North? Cotton is the cheaper freight. If, however, we shall become a great food producing people, the whole problem will be changed. General cultivation and use of rice in the South will solve the factory problem.

To affirm that rice in the South can occupy the vantage ground of wheat in the North, both in extent and economy of production, is equivalent to a commercial declaration of independence. It means that we shall feed our own people with a home-grown cereal, and that with by-products shall produce the pork, the beef, the butter and the cheese required for home consumption. It means a better grade of cattle and horses, better beef and stronger teams. The substitution of rice for corn and wheat as a principal food for Southern people will tend to the development of a hardier race. It will decrease dyspepsia, malaria and mortgages. It will strengthen and fortify every line of industry and give us support at our weakest point, a lack of a proper ratio between the food and the fibre products. By general consent cotton is recognized as the best material to clothe the nations, and iron occupies a peerless position in all mechanical and structural works. In both these world necessities, the South has no successful rival. With the home production of food commercial independence will be complete, and her conquests in the domains of industry will be a series of brilliant triumphs.

Foundries and factories will come to her unsought; her cities will broaden to meet the demands of an increasing commerce, and her marts of trade will teem with merchants from every land."

"We are rapidly approaching the era of a universal density of population. To the people of the United States it has hitherto seemed a remote problem. The revelations of the last census show that within the present century we shall be confronted with the problem of a sufficient home food supply, instead of sending an enormous surplus to the old world. Thus far we have paid no attention to the economic value of food nor its digestibility in our efforts to gratify the appetite. In fact, fifty years ago such values were unknown to the scientific world. Now we realize the amazing waste resulting from the selection of food on the basis of tastes instead of the amount of nourishment contained. As seven-eighths of the food

consumed is on an average expended in the production of energy, the value of foods should largely be based on the amount of energy they will produce in the human body."

"In search of food to meet the requirements of an impaired digestion, I recall the fact that physicians usually prescribe rice for sick people; that laboring people, upon a diet of rice, though able to perform a large amount of work, complain of being hungry between meals. This was precisely what I wanted—energy with hunger. I had it as a child and lost it somewhere in a busy life. Rice eating nations have energy with unimpaired digestion. In Japan it is a common saying among resident American women, 'I could do this if I had a Japanese back,' referring to the strength of loin possessed by the native women. Every traveler in that distant land has noted with surprise the ease with which a jinriksha boy will draw a man six miles an hour along the streets of Tokio. In the late rapid advance upon Pekin it was found that the Japanese could outmarch all the armies of the Orient. With full equipment they advanced all day at double time, and repeated it till even the Russians fell behind exhausted. These women with backs, these jinriksha boys with the speed of horses, and these double-quick soldiers live mainly on rice."

"The South has been deficient in stock. It has allowed the great majority of its lands to remain unused and then tried to work with the plow and the hoe about one-sixth of the area and make it pay the expenses of all the remainder.

"All I need to urge is that an effort should be made to produce more cotton per acre rather than extend the number of acres, — because the profit lies in larger yields for the area cultivated, — also that the best staple should be secured."

"All I have said in relation to the Southern country is based upon the theory that the awakening now in the Southern States will arouse the people to know themselves, their resources, and their possibilities, and that they will strive to adopt the best methods of husbandry, because it is only the best that can meet the wants of a people who are determined to have a high civilization."

"These field schools are bringing about a revolution. A meeting of the farmers of a township called at a home to discuss a field crop,

and to inspect and compare home conditions, cannot fail to place local public opinion upon a higher level and that is the principal opinion to be considered in influencing the farmers."

"The result is that the money which formerly went for current debts now goes into home improvements, better clothing, better stock, and more schooling. The earlier maturing cotton introduced and made common by our agents allows six weeks more schooling annually for the children. Rural improvement requires considerable expenditure of money, which must be provided by the farmers through an increase in the products of the farm with a decrease in their cost."

"The teaching by object lessons is more effective where it is simple, direct, and limited to a few common field crops, such as cotton, corn, cowpeas and oats in the South, so that the comparisons may be evident and accepted at a glance. If general success can be secured with these standard crops, further diversification follows as a natural result."

"In the cotton producing states the first instruction includes cotton as the main cash crop, corn as the standard food for work animals and the basis for more stock on the farm, cowpeas for food and for renovation of the soil, the growing of oats, wheat, rye, or clover and vetch as a winter cover crop, and the meadow and the pasture as the most economical source of food for farm stock. When the farmer has mastered these crops he is ready for diversification in any desired direction."

"The thrifty farmer should always have something to sell — a few colts and steers, or a milch cow, or some hogs. Everytime he goes to town the wagon should carry some fruit or vegetables, or butter, or eggs, or poultry, and on its return it should not be loaded with canned vegetables, preserves, meats or tinned milk. The wagon that goes to town empty and returns loaded with foods the farmer should produce at home is owned by a man who has but one suspender and wears a crownless hat. Enough of the odds and ends should be sold to pay the running expenses of the farm and the cotton crop should be a clear bankable gain. Cotton is the greatest cash crop in the world."

"In the betterment of rural conditions the first step is to teach the individual farmer how to increase his earning capacity."

"No further argument is necessary after the demonstrations have

been made. Facts do the talking."

"Like all great reforms, this demonstration work can not be done for the people to be benefitted, but it must be done by them to be effective. The sick man must take the proper medicine to effect a cure; it will not do for his neighbor to take it for him."

"Efforts, having for their purpose the general uplift of humanity to accomplish the greatest measure of good, must begin at the bottom and work up. That was Christ's plan."

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- 1-year loans may be recharged by bringing books to NRLF
- Renewals and recharges may be made 4 days prior to due date.

DUE AS STAMPED BELOW

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