

ELAM BARTHOLOMEW, PIONEER, FARMER, BOTANIST

by

LEONARD ERLE MUIR

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EXPLANATION OF PLATE I

Island Bartholomew 1852-1934

PLATE I



BOYHOOD DAYS

The life story of Elam Bartholomew is an outstanding example of what man can accomplish under adverse conditions if he has faith, ability, and desire. For it was mainly due to his possession of these qualities that he achieved success in several fields of endeavor. Although he lived most of his life in rural surroundings far removed from institutions of higher learning, his achievements in the field of mycology became known to botanical scientists the world over. His story of success proves that formal education, while valuable, is not always a necessity for success in scientific fields.

Elam's boyhood days, like those of most other people, were ordinary. Born at Strasburg, Lancaster County, Pennsylvania, June 9, 1852, he became the fourth son of George E. and Fanny (Bowman) Bartholomew.¹ To this family eventually were added three other boys and one girl. One paternal ancestor, Henry Bartholomew, six generations back, came from Holland in the early part of the eighteenth century and settled at Philadelphia, Pennsylvania, where he died in 1743. But Elam was not destined to live long in Pennsylvania, for his father was soon to make what proved to be the first of a succession of westward moves. In 1854, George Bartholomew moved his family to a farm five miles northwest of Granville, Ohio, from whence he removed in March, 1865, to a farm owned by John S. Green three and one-half miles

1. Biographical Sketch of Dr. Elam Bartholomew, p. 5. Cited as "Sketch" hereafter. This pamphlet of 20 pages was written shortly after the death of Elam Bartholomew by some of his sons.

west and one mile north of Farmington, Fulton County, Illinois. Here he resided with his family until March 3, 1870, when he again moved his family to what was known as the old Burbridge farm located two and one-half miles west of Farmington on Littler's creek.²

Little is known of the family's activities while living in Ohio except that David, one of Elam's older brothers, joined the Union Army. This brother died on September 24, 1864, at East Point, Georgia, having been a member of General Sherman's army in its march to the sea.

However, after the family moved to Farmington in 1865, more information is available concerning it, and especially Elam, for it was here that Elam began keeping a daily diary. This diary was started on January 1, 1871, and Elam never missed an entry until January, 1922. At that time, after exactly 19,000 consecutive entries, he swore he would quit keeping it.³ But he soon found out that a habit of fifty-two years and eight days was not to be cast aside easily. After several months of random entries the habit won out and daily entries commenced again. Thus it was left for age to finally break this habit. Because of this diary much information concerning his activities from January, 1871, to his death is available.

While growing to manhood in the vicinity of Farmington, Elam

2. "Personal Diary of Elam Bartholomew," March 21, 1874. Hereafter referred to as "Diary."

3. Ibid., January 8, 1922.

spent much of his time in assisting his father about the farm. The work was composed of a variety of jobs such as plowing ground, planting crops, harvesting crops, cutting wood and many other farming tasks. Thus it was during these years that he learned from his father how to earn a livelihood from the soil. In addition to this ordinary farm work he also helped his father in the operating of a small coal mine on the farm. The vein of coal was located close to the surface and Elam hauled numerous loads of it to Farmington where it was sold. How profitable this mine was he does not state.

During the winters he attended the district school until he finished what it had to offer. In July, 1873, he decided to supplement his schooling with home studies in an attempt to become a school teacher. Accordingly, he commenced the study of grammar, botany, natural philosophy, and physiology. This first attempt at self-education was successful and he passed the necessary examination in September of the same year. Shortly afterwards he was engaged to teach at the Mount Tisgah school located seven miles west of his home for a five-month term at \$45 a month.⁴ With the ending of this school in March, 1874, he made a decision that changed his life greatly. On the 16th of this month he wrote, "Having made up my mind to go to Stockton, Rooks County, Kansas, as a place of future residence I spent the a.m. in packing my personal effects"⁵ He, too, like his father, was looking westward toward the setting sun. As to what prompted him to make this decision he did not

4. Ibid., September 11, 1873.

5. Ibid., March 16, 1874.

estate, but possibly the fact that his brother Elias had moved there the previous year was of some influence.

As Elam packed his few belongings on that day in March, 1874, it appeared that he possessed little of value. Much such as assumption would have been wrong, for within him were certain qualities that he had acquired during his boyhood years that would prove of tremendous importance in the life before him. For it was in these years that he gained the basic habits and beliefs that were destined to make him rise above many of his fellowmen in his fields of endeavor. Two of his habits which grew out of his boyhood years have already been noted: the keeping of a diary, which includes other records as well, and his drive for self-education. In addition to these habits he also possessed the habit of neatness and thoroughness. He always maintained that a task worth doing was worth doing well.

Among the many beliefs he had acquired was a strong belief in God and even in life's darkest hours this was to remain steadfast. At an early age, he joined the Presbyterian Church and tirelessly worked for its causes until his death. Another belief or affection was a love for the soil and plant life, which kept him close to nature throughout his life.

However, the greatest asset he possessed as he prepared to leave for a new life in Kansas was the promise of marriage which he had recently won from Rachel Montgomery, the eldest daughter of neighbor Thomas Montgomery. This girl, who later became his wife, was to become his most valuable helper in the years that lay ahead.

EARLY DAYS IN KANSAS

Even in youth Elam Bartholomew was the type of a person who quickly turned plans into action. Consequently, it is not surprising when he first recorded on March 16, 1874, that he had made up his mind to go to Kansas, that on March 17 he started his journey.

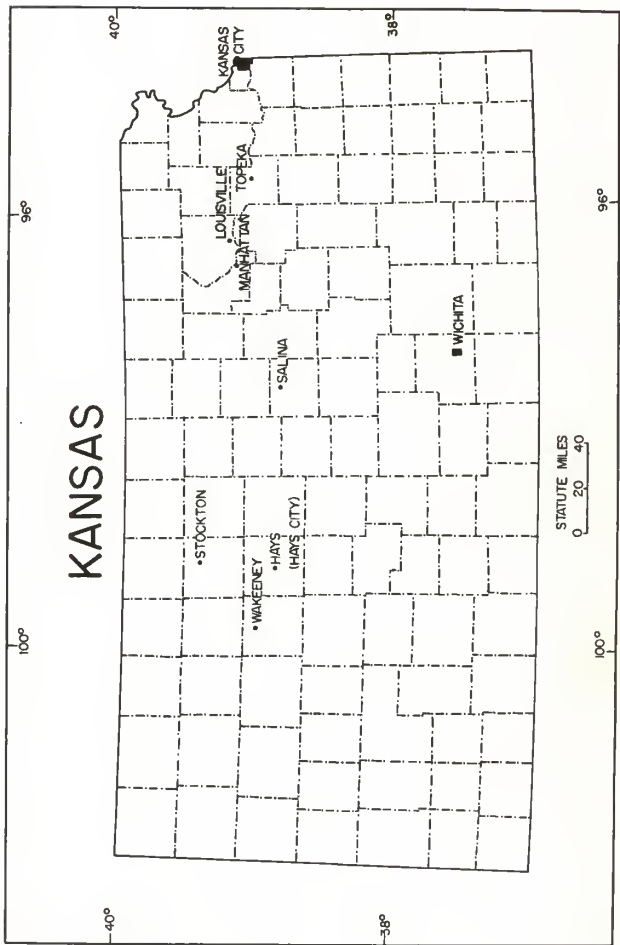
In the year 1874, Western Kansas was indeed a primitive frontier region. At best, settlers coming to this area were barely safe from the recently subdued Indians, to say nothing of the other hazards that were normally encountered in frontier areas. As for Rooks County the first settlers had arrived there in January, 1871. They were ten in number, coming from Washington County, Kansas. These men named the town they helped to establish Stocktown, since they were stockmen, but the name was soon changed to Stockton.⁶ Rooks County was organized, November 26, 1872, "on the petition of more than forty freeholders." Governor James M. Harvey appointed temporary officers, and selected Stockton as the temporary county seat.⁷ The face of the county was approximately 80 per cent upland and 20 per cent bottom land. Average width of the bottoms was one and a half miles.⁸ The general surface of the county was rolling to level, with bluffs in the southeastern portions. In 1874, the trees consisted of red and white elm, cottonwoods, ash, hackberry,

6. A. T. Andreas, History of the State of Kansas, p. 1609.

7. Loc. cit.

8. Loc. cit.

PLATE II



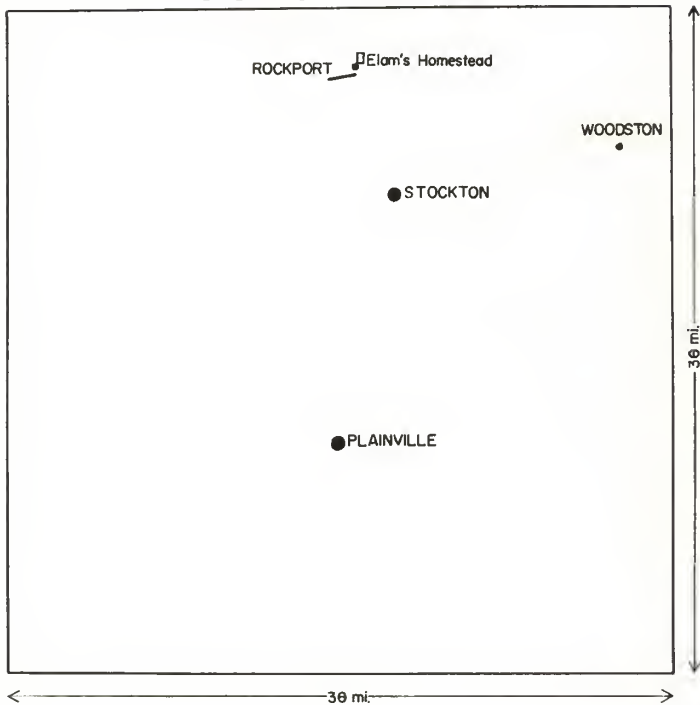
black walnut, and cedar in narrow belts along the streams.

But if Elam was worried about the hardships and dangers involved in settling in such a region, he kept it to himself. As he made his way by train from Farmington, Illinois, to Hays City (now Hays), Kansas, he says little in his diary of what he thought of the country or his action. He went to Hays City because it was the railroad dept nearest to Stockton. He arrived at Hays City during the early morning hours of March 19, without incident. The rest of the night was spent by him in lodging at a nearby rooming house. By pre-arrangement his brother, Elias, and H. W. Hill, a Stockton merchant, picked him up around 9 a.m., and the three men at once commenced the journey to Stockton in a wagon. By nightfall they had reached their destination, which was approximately forty miles north of Hays City. In the spring of 1874 Stockton was a small struggling frontier community. Elam comments that there were not over a dozen houses in the whole town and only a few places of business. However, Elias and Elam put up for the night there. Early the following morning the two brothers proceeded by wagon to the home of Charles C. Foote, located about nine miles north of Stockton in Bow Creek Valley. Elias was staying with Mr. Foote and had gone with him to Rooks County the preceding year from Louieville, Kansas.

Some authors have described Bow Creek Valley as beautiful, and it may be. Beauty is everywhere if one only looks for it. But as Elam took his first look at this small valley through which Bow Creek meanders it is doubtful that he was impressed to any great extent by its beauty. The only trees present in this

PLATE III

ROOKS COUNTY



section of Kansas were in such valleys as Bow Creek but they were lacking foliage at that time of year. There was little land broken and only a few residents in the area. For example, there were only 567 people in the whole of Rooks County in 1875, which was the first year a reliable census was taken.⁹ The scene must have appeared rather bleak to Elam because of these reasons and the fact that he came from a region where trees were more abundant. However, he makes little comment in his diary concerning his impressions of this frontier region, so it is mostly speculation as to whether he thought it beautiful or otherwise.

His quick trip to Kansas by train was typical of many of the pioneers in Western Kansas. Not only did one save a great deal of time but one also managed to avoid a number of hardships endured by those pioneers who came by wagon or other means. While no detailed study has been made to determine just how many of the pioneers came to Kansas by this means it would be a mistake to assume that only single men with few belongings used the trains. In later years Elam tells of several of his relatives coming to this area of Kansas by rail, bringing with them horses and farming equipment, and some immigrants used a whole railroad car to haul their belongings.

Elam brought with him no equipment, horses or livestock, and only a little money. On March 21 he decided to homestead the N. W. quarter of Section 10, Township 6, Range 18, which was about two miles west of Mr. Foote's farm, and to work for this neighbor

9. Loo. cit.

until he gained the necessary capital to purchase equipment and horses.¹⁰ At the time Bartholomew may not have fully realized the wisdom of his plan, and in the following two years his impatience at his slow progress can be found in his diary. But the years of 1874, 1875, and 1876 were not particularly good crop years in this region of Kansas, so he lost little by not getting much ground broken and planted to crops on his homestead.

He was anxious, of course, to get a house built and to start farming on his own because he felt he could not return to Illinois and marry his sweetheart until this was accomplished. With this foremost in his mind he soon selected land, the forenoted quarter, as his homestead. This land, while not extremely good farm land, did have two excellent advantages. It was located close to Bow Creek where water and wood were available. In the following months he and his brother in their spare time determined the boundary lines of his land and began the construction of a house on it. In the building of his house Elam was more particular than many of the homesteaders, who were desperately in need of shelter. He made up his mind to build a house constructed mostly of lumber. He began by cutting down cottonwood trees along Bow Creek. The trees were sawed into logs suitable for the sawmill located at Stockton. He then took the logs, one at a time, to the sawmill to be cut into lumber. The process of cutting these logs into lumber required considerable time, probably because of the local demand of other settlers. However, in a week or so the logs were reduced

10. "Diary," March 21, 1874.

to suitable lumber and were ready to haul to his building site. It is interesting to see that Elam used cottonwood trees for lumber even though the wood is not considered desirable for construction purposes. Cottonwood trees were the only trees available around Stockton which were large enough to contain an appreciable amount of lumber. Although this process of obtaining lumber for his house was time consuming, it was relatively inexpensive. When he had accumulated enough lumber he proceeded, with neighborly assistance at times, to build a house 14 by 22 feet in size.¹¹ The house was constructed partly into the side of a bank in order to reduce the amount of lumber needed. Such homes were easier to heat as well. By late fall he had completed the structure except for finishing the inside, which he decided to leave until he and his wife-to-be were ready to move into it.

On March 20, 1875, Bartholomew recorded in his diary, "One year ago today I landed on Bow Creek and it has been a year of small results." A more accurate accounting of the year's accomplishments shows that he laid the foundation for a permanent residence. During the spring of 1875, Elam decided that summer employment in Eastern Kansas would be more profitable than working for Mr. Foote. Foote did not need his help all the time and Elam did not have enough money to begin farming operations in earnest on his own land. So in June he left on horseback for Louisville, Kansas, located a distance of some 190 miles east of Stockton. Upon arriving at his destination, he began working almost at once. That

11. Sketch, p. 7.

summer did not prove to be as enriching as he had expected because he suffered several spells of sickness. His brother Elias, who had moved from Eastern Kansas in 1873 to Rooks County, was now in the process of returning to the Louisville area. Western Kansas was not especially to his liking, mainly because of the poor crops he had raised while farming there.

In October, Elam returned to Rooks County and resumed part-time work for Mr. Foote. His analysis of 1875 as seen from entries in his diary indicates that he felt that he had not yet accomplished a great deal in Kansas. An example of this is the entry of December 31, where he writes, "Thus ended another year of small results and the unanswered question yet remains for solution: What shall the harvest be?"

Besides working for Mr. Foote and in Eastern Kansas, Bartholomew also used his teaching experience to gain additional working capital. Shortly after arriving in Rooks County, he took a teacher's examination at Stockton and qualified for a first-grade certificate. In January of 1876, he started teaching a three-months term of school in District 16 of Phillips County. His salary for the term was \$85.¹² Phillips County is located north of Rooks County and Elam's farm was located only about one mile from its southern boundary. Eighty-five dollars represented a considerable amount of money during the years that Western Kansas was being settled.

A teacher during those early years of settlement in Kansas faced many unusual problems. For example, Elam had to close school

12. "Diary," January 3, 1876.

a number of times because of no fuel. In fact, it is amazing that the pioneers managed to organize schools while the region was so scantily populated. This region in 1876 was so thinly settled that Elam met a group of Omaha Indians while on the way to school one morning. They were from a reservation in Nebraska and had been on a buffalo hunt in Western Kansas. While their presence in the area was perfectly legitimate, it nevertheless shows that the region was indeed on the frontier. According to Bartholomew these Indians were about 60 in number and had enjoyed a fruitful hunt.¹³

Upon finishing his term of teaching school in April, he proceeded to plant a few acres of corn on his farm. But his thoughts were now turning more and more to the girl he had left behind more than two years earlier. By May he had definitely made up his mind to return to Illinois for the summer to get married and to visit old friends. With this in mind, on May 27 he left Stockton for Farmington, Illinois. Possibly on his return trip to his old home town he may have thought some about the results of his labor in Kansas. In all, he had spent a little over two years in the State and yet had not succeeded in doing much farming on his homestead. Thus the results in this regard were rather disappointing but otherwise he had not done so bad. By working for different individuals and teaching he had managed to build up a fair amount of capital. Besides this financial gain, he also had a part in the rapidly changing frontier scene in Kansas. While this part of Kansas did not enjoy the notoriety of the cow towns in Kansas, it too

13. Ibid., February 25, 1876.

had its more exciting moments. For instance, on June 7, 1875, he witnessed part of a gunfight in Stockton that was as exciting as many of those in Dodge City or Wichita. He was in town tending to some business, when around 11 o'clock he heard some shooting south of the main street. Immediately along with others he rushed in that direction to see what was taking place. They arrived in time to see a man escape on horseback through a shower of bullets. He had left behind two dead or dying men and one live sheriff. Upon inquiry Elam found out that two men, with 35 Texas ponies, had encamped south of the Stockton business district, and gave notice they desired to dispose of their stock for \$20 a head. A number of the local people soon gathered to inspect the ponies while one of the two strangers went up town to make some purchases. While the citizens were examining the livestock, the sheriff of Ellis County, named Ramsey, accompanied by Joseph McNulty, sheriff of Rooks, rode up, heavily armed, and stated that the ponies were stolen property. Ramsey ordered the thief to throw up his hands but instead he jumped behind a nearby pony and made ready to shoot. Both Ramsey and the horse thief were armed with needle guns¹⁴ and fired simultaneously and both dropped dead. The man Bartholomew had seen fleeing on horseback was the other horse thief, who was later apprehended in Smith County, Kansas. Sheriff Ramsey, who had also served as City marshal of Hays City, had killed nine men while in the discharge of his official duties.¹⁵

Besides witnessing this tragic incident, Elam had only a few

14. A breech loading rifle.

15. Andreas, op. cit., p. 1609.

days earlier participated in another tragedy. On May 27 while cultivating corn a heavy rain and hail storm came up about 11 a.m. Upon seeing the approaching storm, he took refuge at the house. When the storm was about over he saw a team of black horses hitched to a dilapidated buggy approaching from the west. He caught and tied the team and then started on horseback to see where they had come from. The trail soon turned southward and after following it for about three miles he found the body of a man in a ditch. It was William Wetherilt, the mail carrier, whose route was between Stockton and Kirwin. An examination showed that his death had been caused by a stroke of lightning. This incident, of course, was unusual and should not be considered as anything else. As Elam sped eastward over the same route as he had originally used in coming to Kansas, undoubtedly these and other thoughts passed through his mind, but foremost in his mind was Rachel, the girl waiting for him in Illinois.

He reached his destination on June 1 and after a short visit with his family, he proceeded to the Montgomery residence to see Rachel. On June 14, they were married at the bride's home by A. R. Mathes, the Presbyterian pastor at Farmington.¹⁶ The wedding was a quiet affair and attended only by relatives. Bartholomew stated in his diary on this auspicious day that "This event closed the old and ushered in the new chapter in my hitherto uneventful life."

The weeks following the wedding were spent by the bridal couple in visiting friends and attending social events. The year being

16. "Diary," June 14, 1876.

1876 of course called for a tremendous celebration in July, when thousands of people gathered in Farmington on July 4 to celebrate the 100th anniversary of the country's independence. As summer days faded into fall, the young couple prepared to journey to the home Elam had built in Kansas. On September 6, he once again started for Kansas but unlike his previous trip, he now had a companion with him whose assistance would be invaluable in the years that lay ahead.

On September 7, the couple arrived at Hays, where they engaged a wagon belonging to C. C. Foote for the journey to Bow Creek. The trip was made without incident and they arrived at the Foote residence located near Bow Creek on the 9th. Here they were invited to live while waiting for household goods which were enroute from Illinois. In 1876 it took considerable time for such goods to be moved and Elam had plenty of time while waiting for their arrival to complete the unfinished house which he had built in 1874. Finally on October 9 word was received that the household furnishings were at Hays and Bartholomew started there at once after them. By October 14, the process of moving was completed and he and his wife spent their first night in their own home. The following day they built a family altar in their home to be used for offering "morning and evening prayer as long as the household should stand."

PIONEER DAYS, 1876-1890

It was upon his return to Kansas that Elam's pioneer days as a farmer actually started. Earlier, except for the breaking of a few acres of sod and building a house, he had accomplished very little in the way of farming activities on his homestead. But now he set about to change this situation as rapidly as possible. During the winter, in order to gain additional capital, he again taught a three-month term of school for which he received \$70.¹⁷ When this school ended in March, he felt that at last he was ready to launch his farming program. Little did he realize then as he went about his spring work that some day his homestead would be one of the most beautiful farms in the region and that agriculture experts from Washington, D. C., would come there to do experimental work.

Elam started his spring work very much like the other nearby farmers, but for some reason he would succeed where many of them would fail. Never does he mention through those early years that he was in financial trouble nor does he ever complain about his crop yields being poor. His secret for success as a pioneer farmer was laid partly in diversification. For instance, after planting five acres of spring wheat in March, he proceeded to plant potatoes and a garden and while many of his neighbors, undoubtedly, did the same they tended to leave most of the garden work to their wives and children. But to Bartholomew the garden work was just as important, if not more so, than the field work. He also

17. Ibid., December 11, 1876.

believed that it was not how much a peroon did that was important but how well it wae done. The great deal of attention that he gave to garden crops, etood him in good etead during these years, not only because of the food raised for his own family, but because quite often he received additional income from the eale of garden surplusee to neighbors.

Elam's activities during the year 1877 are important in that they illustrate why the pioneer farmere often had financial trouble in their first years of homesteading. Elam worked hard throughout this year and the weather was favorable for crops; however, he made little money except what he received for teaching. He simply did not get enough acres of crope planted to make much money from farming. A main obstacle delaying extensive farm operations was the breaking of sod. Sod breaking was done with a one-bottom plow and if a farmer plowed an acre a day he was doing well.¹⁸

After a field was plowed it had to be harrowed once or twice before it could be planted. Harrowing did not prepare a satisfactory eeed bed but the pioneers in general lacked adequate equipment because of its cost and their isolated location. Of course harrowing and planting were quicker operations than plowing, but they too required considerable time. Elam's total acreage in crops in 1877 was probably not over 15 acres. Besidee his five acree of epring wheat he planted some oorn and sorghum. The method used by him in harvesting his wheat also shows that breaking sod and planting crops were not the only time-consuming farm-

18. Ibid., May 7, 1879.

ing operations. Harvesting required five operations: cradling, raking, tying in bundles, shocking, and threshing.

Considering all of these lengthy operations of farming it becomes fairly apparent why Bartholomew's crop acreage was so small this year. However, he could have planted a few more acres if he had not taken time out to dig a well, to build a milkhouse, stable, and a pig pen, and to work in Stockton for several days as Clerk of the District Court. He also spent some time on April 22, October 27, and November 9, along with his neighbors, fighting prairie fires which were a real threat when so much of the land was still in grass.

These activities of one year show that establishing a profitable farm on the frontier required considerable time. There were a number of important jobs that had to be accomplished at once that did not pay off immediate dividends. The pioneers who came to Western Kansas and stayed only a year or two could hardly have been anything but failures under the circumstances. On the other hand, one can rightly assume that in many instances, the early pioneers who became successful farmers in this region were largely subsistence farmers for the first few years of their settlement.

As the years passed by, the crops Elam planted and his farming methods gradually changed. Spring wheat, after three or four years, was dropped with no explanation by him in favor of winter wheat. Fall plowing, much practiced in the East, also proved impractical. However, it took him longer to accept the fact that Western Kansas was not in the corn belt area of the United States. Having come from Illinois where corn was important, he liked this

crop. But over a period of years the corn acreage on his farm was gradually cut and wheat became king. It is also interesting to note that he never mentions losing a crop to grasshoppers, although some authors have indicated that the pioneers were at times literally eaten out of house and home by them. In fact, he mentioned them only once in his diary and that was in 1879.¹⁹

Bartholomew did not attempt to break the sod on his place as quickly as possible, but instead plowed a few acres each year. In 1879, he broke 20 acres, which was the most for any one year. Some land was broken as late as 1884.

High-yielding crops during his pioneer years were unusual, but rarely did he suffer complete failures. For instance, in 1880 he raised 285 bushels of wheat, 150 bushels of corn, 12 bushels of rice corn, 6 tons of millet hay, 145 shocks of corn fodder and 2 bushels of onions, of which he stated that the combined value was \$300.²⁰ But this year, Elam wrote of a statement by the Governor that "crops were a complete failure in Western Kansas." In October of 1877, Elam wrote that cash expenses for the preceding year were \$54. The following table shows the itemized account of the family expenses for the period.²¹ Considering this, it is apparent that a \$300 crop yield in 1880 was not too bad. The year 1884 was one of his better years for crop yields. In that year he raised 650 bushels of wheat, 615 bushels of rye and some corn. He stated that "the wheat was the heaviest

19. Ibid., June 22, 1879.

20. Ibid., in the back of the book for the years 1879 and 1880.

21. Ibid., October 14, 1877.

in straw he has ever seen," but it yielded only a little over 15 bushels to the acre.²² His rye made around 20 bushels per acre. In 1889, he raised his biggest corn crop for these early years. This crop totaled 1,500 bushels but he was forced to sell much of it for around 13 cents a bushel.²³

Table 1. Bartholomew household expense account--October, 1876, to October, 1877.

Item	Amount	Cost
Flour	630 lbs.	\$17.00
Cornmeal	260 lbs.	4.00
Potatoes	12 lbs.	4.00
Pork	70 lbs.	4.70
Dried Fruit		5.55
Sugar	30 lbs.	4.00
Lard	10 lbs.	1.25
Coffee	6 lbs.	1.50
Beans	25 lbs.	1.75
Salt		1.00
Tea		1.00
Coal Oil	5 gal.	2.25
Sundries		4.00
		\$54.00 or \$1.04 a week

The years 1887 and 1888 were his worst years for crops. He stated that "August of 1888 was the driest August he had yet experienced, only 1.7 inches of rain." This tends to show that the late 1870's were not exceptionally dry years in this region of Kansas as some writers have claimed. In fact, drier Augusts have even been recorded than the one in 1888.

However, as a pioneer, Bartholomew accomplished much more than the raising of crops. In the fields of religion, politics and

22. Ibid., June 20, 1884.

23. Ibid., December 7, 1889.

social activities, he was very active. He was attracted to politics shortly after his first arrival in Kansas. Being a strong Republican he rarely voted anything but a straight ticket. In April of 1874, he was elected township clerk even though at the time he was not even a legal resident of Kansas, having only one month's residence in the State. In November of 1876, he was elected to two offices, township Trustee and Clerk of the District Court. Throughout his life he maintained an active role in township and county politics.²⁴ Quite often whole days would be spent, prior to an election, in visiting neighbors in an attempt to convince them that they should vote for certain Republicans. When elections were held, he usually spent most of the day near the polls in support of the Republican ticket. It was in the political field that he showed one of his few prejudices. This prejudice became more apparent in later life in his comments on political parties and presidential administrations. For instance, on March 4, 1920, he stated in his diary, "One more year from today of the notorious Wilson Administration and then may the dear Lord in his mercy and good pleasure deliver us from this inefficient, dishonest, and wildly extravagant Democratic Administration."²⁵ It is interesting to note that his diary contains no such statements concerning the Harding Administration and exposures of its corruption. But if he tended to be biased at times in favor of the Republicans, it must not be forgotten that he was a tireless worker in the politi-

24. On November 5, 1878, he entered in his diary that Bow Creek township, which was 6 by 21 miles, was reduced to 6 by 12 miles and renamed Farmington after Farmington, Illinois.

25. "Diary," March 4, 1920.

cal field. It has been through the efforts of people like him that democracy has been made to work.

The statement has been made in the past by some individuals that "Western Kansas was God's Country." In reply to this, others have stated that "only God would have it." During Elam's early years in Western Kansas, it may have appeared pretty Godless, but he did everything within his power to make it otherwise. No work was so important to him that it had to be done on Sunday. At first, he spent his Sundays in reading and resting, because of no nearby Sunday school or churches. However, being a very religious man and having great faith in God, he soon took action to change the situation.

On June 17, 1877, a Sunday school was established in the Bartholomew home by W. E. Foster, a missionary.²⁶ Elam was chosen superintendent. This was discontinued in June, 1878, because of the lack of interest. But Bartholomew was not the type of man to give up easily, and on October 18, 1878, the Bow Creek Presbyterian Church was organized by him and four other persons including Rachel. He was chosen as elder.²⁷ From this time on there was usually a Sunday school or church service held each week somewhere in the community. If a service was held anywhere close by, Elam always attended. A number of times he went to a scheduled service and found the preacher absent or not enough people to hold a service. In these early years, preachers were not always available

26. Ibid., June 17, 1877.

27. Sketch, p. 9.

in the community and would quite often come from neighboring towns to preach. As more people moved into the region, a regular preacher was finally obtained. Very often the various preachers would eat a meal with the Bartholomews and once in a while spend the night. It was largely through Elam and Rachel's efforts that churches and Sunday schools were established so early in the community.

In his social activities, Elam shows that many writers of pioneer life have been mistaken in declaring in general statements that the pioneers suffered much from loneliness. At least in his area of Kansas, this certainly was not true. His careful record of his activities from day to day clearly shows that these people constantly participated in many events of a social nature. Aside from funerals, church gatherings, and political meetings, all of which have been considered by a good many authors as having social significance, his social life included such things as surprise parties, "necktie" parties, singing socials, oyster suppers, ice cream socials, literary clubs, husking bees, picnics, and just plain social visiting. The last was the most important. For instance, in 1880, he kept a record of the number of visitors and callers that came to his place. The average was 90 a month, and a total of 1,081 for the year. Also, during this year he had 65 people a month eat meals at his place.²⁸ No doubt Bartholomew took part in more social functions than the average pioneer, but this record kept by him in 1880 would certainly seem to indicate

28. "Diary," back of book, 1879 and 1880.

that many of his neighbors also spent a great deal of time in visiting. In addition it should be remembered that these pioneers had a great deal of spare time in the winters during their early years in Kansas because they owned very little livestock. As time went by Elam accumulated more livestock but at the same time his family continued to grow and the children helped a lot in caring for the livestock. Elam and his family always had plenty of time for social activity. In fact, he helped to organize the Bow Creek Literary Society and the Rockport Literary Society. The purpose of these two groups was to read and discuss books and articles. The attendance at some of the parties in the neighborhood was amazing. Thirty people were present at a surprise party honoring Elam and Rachel in January of 1877. In February of the same year, 80 people were present at a "necktie" party at one of his neighbors'. At such parties, neckties would be sold for five or ten cents and the money used for a community purpose. Bartholomew's pioneer days were certainly not days of boredom and loneliness. He and his wife and children would quite often drive to a neighbor's and spend the evening visiting. Sometimes they would stay all night.

It was during these pioneer years that his seven children were born, six sons and one daughter. They were George Edgar, Elbert Thomas, Elizabeth Fanny, Jesse Elam, Earl Robert, Hubert David, and Lee Montgomery.²⁹ The raising of a family was not an easy task for the Bartholomews, for they too suffered the heart-break and sorrow of losing children, like many of their fellow

29. Sketch, p. 7.

pioneers, through lack of proper medical care. Such care was not available on the frontier, nor was there much that doctors could do for many of the diseases of the day. Of all the hardships the pioneer people suffered, the losing of their loved ones, many of them very young, was the worst. Shortly after his second arrival in Kansas, Elam and his neighbors established the Bow Creek Cemetery and throughout the years to follow they made many trips there to bury their dead. In January of 1887, their son, Hubert David, died at the age of seven months. He had been sick for two weeks and gradually faded away before their eyes. Elam and his wife felt the loss heavily. The death of this child and later George caused them a great deal of worry and fear. They then realized that life hung on a slender thread. And indeed it did in these years. After the death of a child, any sickness by the remaining children caused much worry for the parents.

As the children grew older they became useful to their father and mother about the place. But it was not until later years that they would render their greatest assistance in Elam's work. For they too like their mother were to be instrumental in his many accomplishments.

As his pioneer days came to a close Bartholomew could have looked back over them with a feeling of satisfaction, for he had accomplished much. He not only had many children to be proud of but he had proved that a good living could be made from the soil in Western Kansas. His homestead was becoming a landmark in the community, for around it he had planted hundreds of trees and bushes. This had not been an easy task, for many of them died and

had to be replaced. Indeed he had changed the appearance of his place much since that day in 1876 when he and his wife had moved into his house built from cottonwood lumber.

He had had his share of hardships and sorrow, but unlike many people he never lingered over them and complained. Instead he constantly looked eagerly for the morrow and thanked God for the blessings of the present. Of his many achievements, during this period of life, his habit of keeping detailed records about his work, weather, family and social activities was especially significant. For it is from such records that mankind can find out what has happened in the past. All too often adequate records, such as his, are not to be found and many false impressions concerning the past creep into history. The story of pioneer life in Western Kansas as told by many authors is far from true. Too often they leave the impression that these people were supermen and that the hardships they suffered and overcame were possible only by a miraculous effort. The story Elam left of his pioneer days plainly shows that the pioneers were ordinary people adjusting to situations that were often ordinary. They worked and enjoyed life just the same as people in any age. The weather, although much different from that of Illinois and Ohio, was not a series of hailstorms, droughts, blizzards and extremely hot and cold temperatures. In his weather records, Elam shows in almost every case that the weather extremes recorded in Western Kansas --such as highest and lowest temperature, driest and wettest years--were not recorded during the years of the pioneers. He started keeping his weather records in 1879 and some of the infor-

EXPLANATION OF PLATE IV

Peach Orchard about
1900

PLATE IV



mation contained therein is most enlightening. For instance, in 1890, when he recorded 17.05 inches of moisture during the year, he stated that it was the driest year recorded by him in the 12 years he had kept records. In March of 1892 he stated that a 15-inch snow was the worst March snowstorm yet recorded. The highest temperature he recorded during his pioneer years was 113 degrees-- in 1888 and 1890.³⁰ The coldest temperature he ever recorded during those early years was 31 degrees below zero--in January of 1885.³¹ He rather frequently mentions hailstorms occurring somewhere in the area. However, they usually did not cover a large area and only once in a while completely destroyed crops. He never mentions losing a complete crop of his own in one of those storms until 1906 and only rarely before 1890 does he mention losing part of a crop. Thus it is evident that Bartholomew's weather record kept accurately from day to day tends to picture the climatic conditions very much like the present weather in the region.

As explanation for the failure of many of these early settlers in Western Kansas, Elam pointed out a number of reasons. Soon after setting up his own residence in Kansas many of his relatives followed him there. Among these were his father, mother, several brothers and several of his wife's brothers. In February, 1891, after all of these relatives had left except his brother Ed and his father, who had died in 1881, he stated, "It makes us feel sad to think that so many who are near and dear to us have tried

30. "Diary," back of books, 1888 and 1890.

31. Ibid., January 1, 1885.

in vain to build up a home for themselves in this region.³² He did not explain in detail why others had failed while he and his brother had not. But infrequent comments in his diary, about the friends who left, point out a number of reasons for their failure to establish permanent homes in this part of Kansas. One important reason was that they simply did not like the country and its climate. After one or two poor crops they pulled up stakes and moved back to Eastern Kansas, Illinois, Wichita, or some place else. They came like many of the early settlers looking for adventure and a quick fortune. Not finding an easy path to wealth, many saw no reason for staying where they did not like the climate and the country. They were not real failures in one sense, for they usually left with as much as they had brought, if not more.

To Elam there was no dividing line between his pioneer days and the rest of his life. The year 1890 has been selected for several reasons as the ending of his pioneer days. Frederick Jackson Turner, noted professor of history, uses this year as the end of the frontier in a paper entitled "The Significance of the Frontier in American History,"³³ which he presented on July 12, 1893, at the Colombian Exposition in Chicago. While this paper dealt largely with the importance of the frontier on influencing American thought and institutions, Professor Turner also stated that the American frontier had come to a close in 1890 in theory if not in practice. His reason for this belief was that, although free

32. Ibid., February, 1891.

33. John D. Hicks, The American Nation, p. 280. This essay appears in the latest compilation of Turner essays, The Early Writings of Fredrick Jackson Turner (1938).

land was still available for settlers, most of it was totally unfitted for the type of agriculture that earlier American pioneers had practiced. Many of Turner's ideas have been questioned by other historians but generally his choice of the year 1890 as the end of the American frontier has been accepted by historians as valid. This alone would be sufficient reason to terminate Elam's pioneer days as of that year. However, the main reason for the author's choice of 1890 as the end of Bartholomew's pioneer days was because it was near this year that several important changes began taking place in his life. These changes were to eventually make him a many-sided man.

ELAM BECOMES A MANY-SIDED MAN

Between 1890 and 1910, Elam was truly a many-sided man. Before 1890 he was mainly a pioneer farmer and after 1910 he was primarily a botanist. It was during this transitional period of his life that he made his livelihood not only from farming but also as a missionary, botanist, postmaster, crop experimenter (for the United States Department of Agriculture), census enumerator, and township assessor. To think that he could accomplish much satisfactory work in so many different occupational fields is almost unbelievable. But he was remarkably successful in each of these fields of endeavor. However, one person can accomplish only so much in a specified amount of time and Bartholomew was no exception to this rule. While he achieved much in several different occupational fields, he could not have done it without help. For example, as a Sunday school missionary for the Presbytery of Osborne, he spent much time away from home. Farm work, if it was to be successful, could not wait for his return. And it did not wait, for his children and Rachel, to a large extent, took over the operation of the farm. Thus his participation in many outside activities during this period of his life forced him to rely heavily on the work of his family. The amount of assistance received from his children varied a great deal from year to year, but no so much from job to job. In other words, the children helped all they could but the amount of assistance received from them depended on their age and where they were. The older children helped more in the 1890's than Earl and Lee, but after 1900 the older

children left home for various reasons and the younger children increasingly participated in their father's work. As for Rachel, she helped constantly in his work, no matter what it was, throughout his life. To her belongs much credit for many of his accomplishments.

Elam's interest in the study of plants became apparent during his early years in Kansas. In 1882, he began collecting all the different plants in Rooks County and by 1884 he had almost finished this task.³⁴ The knowledge of this collection became well known and soon attracted the attention of botanists at Kansas State Agricultural College. On July 16, 1885, a number of the botanists at K.S.A.C., among them Dr. W. A. Kellerman, visited Elam's farm. When they arrived, around two o'clock in the afternoon, Elam was cultivating corn. Dr. Kellerman walked across the field to where Bartholomew was working and they visited a while. During this visit Kellerman picked up a pigweed and showed Elam a fungous growth on it.³⁵ This action by Kellerman has been credited as the germination of a new objective in Elam's life because it turned his interest from the study of plants in general to the specific study of fungous plants (mycology). While it is true that this little incident may very well have been a crucial event in Elam's life, it is interesting to note that at the time he thought so little of it that it was not even mentioned in his diary. Later Bartholomew often told friends that he considered this a major turning point in his life. But in 1898 two events happened that were also of

34. Sketch, p. 13.

35. Loc. cit.

major importance in shaping Elam's life work thereafter.

On August 23, he was nominated for State Representative on the Republican ticket by the County convention.³⁶ Being a strong Republican as well as having a strong interest in politics, he considered this quite an honor. Soon after the nomination he resigned as Postmaster of Rockport and recommended his wife for the position. Then he started a vigorous campaign which occupied most of his time until election day. But fate was not kind in this case and he was dealt a stunning defeat by the Populist (Farmer Alliance) candidate in the November election. The defeat was a severe blow to him and he took it rather seriously. However, after darkness comes the dawn and on November 16 he received the news that Kansas State Agricultural College had conferred upon him the degree, Master of Science, for his work in botany.³⁷ The combination of these events caused Elam to concentrate more on his botanical work and less on politics. He continued to show much interest in the political field but he never again ran for any important political office. These events in 1898 did not create in him an interest in botany or mycology work but only served to direct more of his energy in that direction.

The visit by Dr. W. A. Kellerman and his botany associates in July of 1885 had no immediate effect on Elam's daily work. The mid-summer season found him busy tending to crops. But with the coming of fall Bartholomew began to spend more of his time in pur-

36. "Diary," August 23, 1898.

37. Ibid., November 16, 1898.

suing the study of botany. His interest in fungous plants was aroused and he decided that Latin and more detailed botanical study were necessary before he could proceed very far in this new field. Accordingly, he purchased the necessary books and began a program of self-education. His progress along this line was remarkable and in a few years he had mastered much of the available information in the field of mycology. His study of plants and of Latin required no great change in his farm and religious work because his pursuit of education came at night and during the winter. Especially during the winters, Elam had a great deal of spare time. Unlike some of his neighbors he never acquired a large amount of livestock. It is impossible to determine the exact amount he owned for any one year, but in general he leaves the impression in his diary that his livestock holdings were usually small. Rather frequently he mentions the selling of a load of hogs which would usually mean three or four head. He hauled these hogs to one of the nearby towns in a wagon. Rarely does he say much about his cattle but he did indicate from time to time that he owned some. So because of the small amount of livestock kept by him, he had considerable time during the winter months in which to pursue his study of botany. Especially after 1890, he gradually spent more and more time in botanical study. In 1890 he made one of his first outstanding contributions in the botanical field. In January, he sent several specimens of fungus to Kansas State Agricultural College for classification. On February 22, he learned that several of his specimens had been found entirely new to science and one had been named after him, "Diplodina Bartholami."³⁸ But his greatest achievements

38. Ibid., February 22, 1890.

in the botanical field had to wait until later in his life, for between the years 1890 and 1907 he was busy with a number of other jobs.

One of Elam's reasons for success was that he seldom turned down an opportunity to do something or to go some place if he could possibly work it into his schedule. His early interest in collecting plants, in politics and in religion tended to make him better known in his neighborhood than most of the other residents. Consequently he was offered a number of government jobs from time to time. In 1890 he accepted the job as census enumerator for three townships. He accomplished the task successfully and received the job again in 1900 and 1910.³⁹

Throughout his life Elam was a tireless worker in the Presbyterian Church, but especially so from 1893 until 1907. During these years as President of the Rooks County Sunday schools and missionary of the Presbytery of Osborne for Northwest Kansas, he spent much of his time in religious work. No task was as important to him as that of doing the Lord's work.

In April of 1893, at the spring Presbytery of Osborne, held at Hays, he was elected Commissioner to the Presbyterian General Assembly to be held at Washington, D.C., starting the 18th of May.⁴⁰ This election ushered in a new era in his life. From that time on he became an extensive traveler and spent more time in religious work. Bartholomew left for Washington on May 10, even though the Assembly was not scheduled to open until May 18. This trip, which

39. Sketch, p. 8.

40. Ibid., p. 9.

kept him from home for a month, was only the beginning of many more such trips in the future. He went on the train and took time to visit some of his old friends at Farmington, Illinois. He also stopped at Good Hope, Illinois, to see his brother John, where he wrote, "He is doing much better than he was in Kansas and his family has increased from 2 to 7, with additional prospects ahead." After these visits he proceeded to Chicago, where a day was spent observing exhibits at the world's fair. From Chicago he continued his journey to Washington by way of Pittsburgh and Cumberland, Maryland. He stated that the scenery between Pittsburgh and Cumberland, Maryland, was the greatest he had ever seen. On May 18, he arrived in Washington and attended the Assembly, which lasted until June 1. He saw many of the sights of Washington and also had the privilege of meeting President Cleveland and his wife. In fact all the delegates at the Assembly made a trip in a group to the White House and shook hands with the President. It was at this Assembly that the celebrated trial of Dr. Charles H. Briggs, Professor at the Union Theological Seminary of New York, took place. He was charged with heretical teaching and found guilty by a vote of 379 to 116.⁴¹ Elam voted with the majority. On June 1, the Assembly ended its 105th session. Elam considered his attendance at this meeting as one of the most important happenings of his life.

On June 5, Elam returned from Washington to Chicago. At Chicago he decided to spend several more days at the fair. He visited many of the exhibits and commented that they were "tremendous."

41. "Diary," May 19, 1893.

On June 7, he sped on toward Stockton, Kansas, and arrived there on the 9th. He had traveled 3,200 miles by rail and a hundred by streetcar. This trip points out the nature of most of Elam's trips. He almost always spent a few days during each trip visiting friends and relatives as well as sightseeing and collecting specimens of fungus.

On October 17, 1893, Elam was elected President of the Rooks County Organization of Sunday Schools.⁴² He took this position very seriously and soon made up his mind to spend much time and energy in an effort to organize a strong Sunday school in every township of the county. His usual transportation to and from these meetings was a horse and buggy, and Rachel went with him most of the time. After 1893, his boys did most of the field work because the work of attending and organizing Sunday schools took up a great deal of his time. Thus in accepting the position as President of the Rooks County Organization of Sunday Schools, Bartholomew brought about a big change in his life. Never again except for brief periods would he spend much time himself in field work. But the term field work should not be confused with experimental work for the government, or garden and horticultural work. He continued the latter types of activity about his farm for many years.

In the several years that he was President of the Rooks Sunday School Association, he traveled more than 2,500 miles at his own expense and visited every township in the county again and

42. Ibid., December, 1893.

again.⁴³ At each of the meetings he attended, he would usually give a talk on some subject related to religious work. Some of the topics chosen for these talks were "Little Foxes in the Sunday School," "The Road to a Christian Decision," and "Individual Responsibility." Each meeting or Sunday School Convention he attended would require at least one full day, and more if the meeting place was far from his section of the county. At times this work had its discouraging moments for him, but he would only work harder to overcome them. Attendance would sometimes be small and at other conventions an attempt would be made to provide social activities which did not suit his taste. In 1896, he was extremely displeased when he attended the Bow Creek township S. S. Convention and found them selling cigars for the benefit of the Sunday school. On this occasion it is easy to see how strongly he felt about his religion and God.

In March, 1903, after achieving great success in Rooks County, in the religious field, he accepted the position of Sunday school missionary for the Presbytery of Osborne, which comprised 18 counties in Northwest Kansas.⁴⁴ While holding this position, which he resigned in 1907, he traveled by team and by rail 37,810 miles or the equivalent of one and one-half times around the globe.⁴⁵ About 6,000 miles of this distance was outside his own particular field of labor. But unlike his former position

43. Sketch, p. 10.

44. Loc. cit.

45. "Diary," August 30, 1907.

as President of the Rooks County S. S. Association, he received a salary of \$800 a year plus \$150 a year for expenses. While working in this capacity his accomplishments were not only outstanding but almost fantastic. During the four and one-half years he was a missionary, he made 2,875 family visits, distributed 123,756 pages of Sunday school literature, made 268 addresses, attended 243 school sessions, 68 conventions and organized 43 schools with a total membership of 1,820 teachers and pupils.⁴⁶ His wife, Rachel, whose heart, too, was in the work, often accompanied him on the long drives to make addresses on primary work, a department in which she was unusually successful.

During his years as missionary he labored under many difficult conditions and faced much inclement weather. His over-all effort shows that he was a dedicated man in the Lord's work. By the summer of 1907, he felt he could no longer spend the necessary time that was required to be a successful missionary, so he resigned the position. The circumstances that brought about this action were a growing interest in botanical work, several children leaving home, and the conducting of experimental crop work for the government.

Elam did not leave his religious work behind when he resigned as missionary, for his enthusiasm for the work continued until his death. A brief summary of his religious work during his life shows that for a period of over 50 years he was found in the forefront of Christian activity, both home and foreign. He was elected elder in the Presbyterian Church in October, 1878, and he held this

46. Loc. cit.

position for the remainder of his life. He was the first layman in Kansas to be chosen moderator of a Presbytery. This action took place at WaKeeney, Kansas, in April, 1894, and he held the same position again on several occasions later in his life.⁴⁷

The impression of his labors in the religious field was felt and recognized not only in every township in Rooks County and the counties in Northwest Kansas but throughout Kansas and the United States as well. He was often a delegate to the State Sunday School Convention and twice he was one of the Kansas delegates to the International Sunday School Convention, the first at Denver, Colorado, in 1902, and the second at Toronto, Canada, in 1905. One of his comments about the Toronto meeting was, "This Convention was the greatest Sunday School Convention yet held."⁴⁸ It was on the latter trip that he made his first visit to Niagara Falls. In 1910, he was one of the Kansas delegates to the Fourth World's Sunday School Convention at Washington, D.C. In May, 1919, he was again called to sit in the General Assembly of the Presbyterian Church which met at St. Louis, Missouri, and again in May, 1929, he was chosen to sit in the Assembly at St. Paul, Minnesota. In addition to these meetings he was called three times to attend missionary conventions in Omaha, St. Louis, and Kansas City.⁴⁹ To merely say that he led a fruitful life in the Lord's work is somewhat understating his religious activities.

In September of 1896, Elam's oldest boy George left home to

47. Sketch, p. 9.

48. "Diary," June 27, 1905.

49. Sketch, p. 9.

attend the College of Emporia located at Emporia, Kansas, to become a minister. George's leaving home more or less set the pattern that the other children would follow in the coming years. Elam and his wife did not resent seeing their children grow to adulthood and take up their separate ways of life, but as these children left home their departures brought about changes.

By 1900, George had finished his schooling at Emporia and, not having the necessary funds to pursue further studies for the ministry, he decided to teach for a few years. With this in mind he accepted the chair of Science and Mathematics in the Hiawatha Academy of Hiawatha, Kansas. However, fate intervened to prevent this and in so doing caused his family one of its greatest sufferings. George died at Hiawatha on September 11, 1900, with a sudden sickness, probably an attack of appendicitis.⁵⁰ The loss of their first-born son, in the prime of his life and in excellent health, stunned Elam and Rachel. Words cannot describe how severely they felt the loss of this son and how, after it, the sickness of one of their children would bring fear to their hearts. If ever Elam's faith in God was shaken it was at this time. On September 13, his diary entry was as follows:

Spent the day at home in the darkest sorrow that has ever come into my life, praying for comfort and finding none, wondering why or for what purpose the dear Lord has sent this overshadowing sorrow and deep affliction upon us, not seeing clear how to say 'Thy will, oh God, be done' or 'The Lord hath given, the Lord hath taken away; blessed be the name of the Lord.' This is the darkest of all darkest hours.

50. "Diary," September 13, 1900.

But he had worked earnestly for the Lord during his life and even this tragic event could not turn him from his faith. Time tends to heal wounds if not sears, and on December 31, 1900, his diary entry shows that some moderation of his former feelings had taken place.

Thus closes a 30 year period in the keeping of this diary. Oh, the joys and sorrowe, the sunshine and shadows of the long period covering the best part of my life. How the lights and shadows play along life's pathway. Today, the bright joyous sunlight and the sweet melody of the feathered songstere; tomorrow, the drooping head, the tear-stained cheek, the dark cloud and the blackness of ashes. Earth's contrasts indeed.

In the years following 1900, the other children left home for college and marriage until only Lee, the youngest, remained. As Lee grew to manhood he took over the field work and a great deal of the livestock work about the farm. And from then on with the exception of one year, which he spent in Wyoming, he operated the farm until Elam sold it in 1929.

Another part of Elam's life, during the period as a man of many different occupations, was his job as Postmaster of Rockport. Rockport, a small town located a short distance south of Elam's farm, was one of the two towns present in Rooks County when he arrived in 1874. However, it had never prospered to any extent, and when the railroad missed the town it soon ceased to exist. In 1895 when E. A. Wilson, the Rockport Postmaster, decided to leave the county the job was offered to Bartholomew. He accepted the position and the postoffice was moved to his home. He held the position until 1898, at which time he resigned and Rachel became Postmistress. The running of this postoffice was largely a job

for the entire family. While it was only a small one, it was convenient for Elam's nearby neighbors and provided additional income for the Bartholomews. In 1905 it was closed with the opening of a rural route.⁵¹

Thus with the help of his family and the efficient utilization of his spare time, Elam was able to succeed in several different occupational fields for a number of years. At the same time that he was working as a postmaster, missionary and scientist, he spent much time in creating one of the most beautiful farms in Western Kansas.

51. Ibid., August 31, 1905.

AN OASIS IN A DESERT

The extreme variability of weather conditions in Western Kansas is often grounds for temporary residents judging that the area is a desert. Opinions based on such short acquaintances with the region are apt to be in serious error. For instance, while Western Kansas is not a desert in the average year there are years when it lacks rain.⁵² However, many visitors classified the region as a desert for such reasons as lack of trees, distance one can see, and dust storms. In themselves such reasons are not sufficient for such a decision. For example, a mere dust storm is not unusual even in the wettest years.

The early settlers in Western Kansas had few dust storms to contend with because in most instances they were confronted with a sea of waving grass. But the general lack of trees must have affected them, since most of them came from regions where trees were more numerous. The opinion the majority of these settlers formed concerning the land and the climate has not been fully determined. It is known that a goodly number of them soon came to the conclusion that if the region was not a desert, at least it was not far removed from one. But others must have thought better of the area; otherwise they would not have achieved such remarkable results. And their results were remarkable, for only a few years were taken by them to transform the landscape from one of waving grass to one of waving grain. Some settlers were not even satisfied with this feat, but also attempted to change the land-

⁵² Definition of desert used by the author in this latitude is a region with less than 10 inches of rainfall in a year.

scape by planting trees. After 1873 the Federal Government encouraged tree plantings by offering 160 acres of land to individuals if they planted 40 acres of trees on the land and kept them alive for 10 years.⁵³ This effort by man with government encouragement in time was recognized as somewhat of a mistake. Trees did not live long in the region unless given special care and most of the pioneers felt that they were busy enough earning a living without giving special attention to trees unless they received compensation for it. Thus it is not surprising that upon receiving full title to a timber claim most of the settlers soon forgot the trees. Some of these trees lived without care but the majority of them perished in a few years.

While it may have been another example of the government frittering away the public domain, the Timber Culture Act was not a complete failure, for much was gained by its inception. After considering the climatic conditions of Western Kansas more carefully some of the farmers concluded that man must adjust his crops and farming methods to the climatic conditions of the region, instead of attempting to change the climate to meet requirements of the crops and farming methods that had been imported from regions of more plentiful rainfall. Some aspects of this goal were achieved in a short period of time, such as elimination of spring wheat and the reduction of acres planted to corn. However, changing farming methods and the development of new varieties of crops, which would produce higher yields, required many years of experi-

53. The Timber Culture Act was amended in 1878 so that the minimum tree-growing requirement was reduced to 10 acres.

mentation to bring satisfactory results. In fact, experimentation is still being conducted to find a better solution to this problem faced by Western Kansas farmers.

Elam Bartholomew's diary shows that he was no exception when it came to making these mistakes. Having come from Illinois, where trees and rainfall were plentiful, he commenced his farming activities on the basis of his past experience. How he gradually changed his farming methods and types of crops has been developed earlier but his activity concerning the planting of trees bears further mention.

Although he had been fortunate in obtaining a quarter of land along a creek where there were a number of trees, he was by no means satisfied. Consequently, as soon as time permitted he undertook the project of changing the landscape of his farm by planting trees. Likewise many of his neighbors also commenced similar projects, but a great many of them proved unsuccessful, while Elam's was a success. Elam had a greater interest in trees than many of them and this probably accounts for his greater attainment. Planting trees was a yearly chore for him and his family, but more important than the planting of the trees was his care of them. Each spring and summer he spent hours and days keeping them free from weeds by cultivating and hoeing around them. Any that died were replaced the following spring. Little did he dream that his persistence along this line would some day cause people to call his place "An Oasis in a Desert." In the truest sense his place was

never an oasis in a desert, but by 1912, it attracted attention in that way.⁵⁴

If one could turn back the pages of time to a morning early in June of 1912, and become a stranger standing at the west entrance to Elam's farmstead, preparing to walk down to his house and look around his farm it would soon become apparent why it was called "An Oasis in a Desert" by many people. As the stranger began his walk down through the lane of trees bordering the entrance road, he would certainly have thought them stately and elegant and worthy of Old England or the sunny southland. As he walked along the lane he may have caught the scent of flowers and undoubtedly would have heard birds chirping in the trees. Upon emerging from the lane of trees, about 300 feet in length, he would have come within full view of the farm buildings. On his right he would have seen a two-story house. The house was painted white and surrounded by a yard containing many beautiful flowers. Further to the east and south a large substantial red barn would also have attracted his attention. In walking and looking about the farmyard, the stranger would not only have noticed the large, beautiful, well-kept buildings but would also have observed that the place was extremely neat in appearance. Machinery and livestock were kept where they belonged and weeds could hardly be found anywhere. If the stranger was fortunate and found Elam or Rachel close by, they would have gladly taken him for a stroll through the garden and orchard located southwest of the house. In the orchard the visitor would have found peach, apple, plum and cherry trees. The cherry

54. Rooks County Record, June 21, 1912.

trees loaded with fruit almost ready to be picked would certainly have drawn a special comment.⁵⁵ The appearance of the whole orchard was indeed remarkable, for the complete absence of weeds, little blight, and the well-arranged rows of trees all presented a masterpiece of neatness and beauty.

In the general vicinity, he would have seen a large, well-kept garden containing many different kinds of vegetables. South of the orchard, numerous plots of alfalfa and corn would certainly have drawn his attention. Upon inquiry he would have been told that these were experimental plots being conducted under the supervision of the United States Department of Agriculture and that this was acclaimed in 1908 as the largest alfalfa experiment station in the world.⁵⁶ Upon his departure, this stranger could hardly have kept from wondering how this had all come about. For he had just viewed one of the most remarkable farmsteads in all of Western Kansas.

Early in 1876, when Bartholomew began the routine work of a pioneer farmer, little did he realize that he would create a farm so outstanding in Western Kansas that within 25 to 35 years it would become a showplace and attract the attention of agricultural specialists in Washington, D.C. As he began the work of carving a home out of the frontier, he had in mind several ideas. He not only wanted to become a successful farmer and establish a permanent home, but he also wanted to create an attractive home. Having

55. Elam stated in his diary that the bulk of the cherries were picked on the 18th and 19th of June in this year and that the yield was well over 40 bushels.

56. Rooks County Record, July 17, 1908.

EXPLANATION OF PLATE V

"Cherry Time at Bartholomews"
about 1913

PLATE V



a strong love for trees and flowers, he soon started planting these in order to beautify his place and at the same time provide protection from winds. His first account of such work was in 1878, when he mentions planting 500 cottonwood trees.⁵⁷ His choice of cottonwood trees was probably due to their abundance along Bow Creek. After 1878, he planted trees almost every spring, but he soon changed from planting cottonwood trees to various other kinds. In 1882, he planted box elder, walnut and ash trees. These were planted northwest of his house and he stated at the time that the previous trees he had planted there were a failure. In April of 1884, he planted some apple trees. In the following years he planted cherry, plum and peach trees.

The planting of trees, bushes and flowers was a job that required a great deal of labor but little capital. By 1900 Elam had his farmstead well beautified with trees and flowers but the buildings were still much the same as originally constructed by him. These buildings, while yet serving their purpose, were far from beautiful and, being constructed with cheap material, were in need of repair. This became especially apparent in June of 1899 when the roof of the house partly fell in during a rainstorm.⁵⁸ As a temporary measure Elam decided to build a sod house to live in while constructing a new two-story frame house. This sod house was well constructed and, like a great many temporary buildings, it was used for several years. However, by December of 1905, the frame house had been finished and painted. In his diary Elam stated that

57. "Diary," March 11-14, 1878.

58. Ibid., June 3, 1899.

EXPLANATION OF PLATE VI

Sod house built in 1899 by Elam and his family after roof of their old house fell in during a rainstorm.

PLATE VI



EXPLANATION OF PLATE VII

Interior of the sod house built in 1899

PLATE VII



EXPLANATION OF PLATE VIII

Bartholomew home built in 1905

PLATE VIII



the new house cost about \$2,100.⁵⁹ The finishing of this house in a way represented the ending of an era. Most of the early settlers in this area of Kansas at first constructed cheap temporary homes but as the country became permanently settled this type of housing was replaced. Thus by 1905 Elam had taken a major step in constructing more permanent-type buildings. Of course a place with a large beautiful house did not look right in that day without a barn of similar nature. Consequently, he proceeded to build a barn about five years later. It was the completion of this barn that set the place apart from many of his neighbors'. His farmstead, while possibly not the most attractive in the area, was a rival for top honors and his bountiful orchard was indeed a rarity in Western Kansas.

By the early 1890's, Elam had attracted the attention of representatives of the United States Department of Agriculture, either through his unusual interest in plants or a combination of this and other factors. Some of these other factors might have been his keeping of records (weather and otherwise), leadership in his community, and his planting of trees. On October 8, 1892, he was appointed special agent for the United States Department of Agriculture to plant plots of wheat in different ways in order to learn if rust could be prevented by a certain method of seed bed preparation and a certain planting time.⁶⁰ In connection with this project he was also to carry out spraying tests on the different plots of

59. Ibid., December, 1905.

60. Ibid., October 8, 1892.

wheat to see what effect this would have on rust. His salary for the work was \$20 a month during the months he worked on the plots. Instructions as to what to do and when were furnished by the Department of Agriculture and were carried out as nearly as possible. Some accounts of this work can be found in the Department's Year Book for 1892 and the Journal of Mycology for 1893. Even though these tests were terminated in 1893 they served several important functions. Besides the information they provided concerning the possible elimination of rusts, the successful carrying out of the project put Elam in a position where the Department of Agriculture would turn to him again when it wanted to conduct further experimental tests concerning crops in the Great Plains region of the United States.

So it is not surprising that when the U.S.D.A. decided to carry out extensive crop experimental work in 1907 in Western Kansas it picked Elam as the man to conduct the experiments. This work was commenced in 1907 by the planting of various types of alfalfa and corn. By July of 1908, Bartholomew's farm had become the largest alfalfa experiment station in the world, according to Professor C. J. Brand of Washington, D.C., a widely known alfalfa expert. Professor Brand stated at the time that there were 142 different varieties of alfalfa from Asia, Africa, South America, Europe, Mexico, Canada, and the United States being grown on the farm.⁶¹ Such a large amount of experimental work required considerable time and labor, and Elam could not accomplish all of this

61. Rooks County Record, July 17, 1908.

EXPLANATION OF PLATE IX

Experimental plots of alfalfa 1908-1914

PLATE IX



EXPLANATION OF PLATE X

Experimental corn of a Central American
variety 1908-1914

PLATE X



work by himself and carry on his growing botanical work. Thus in July of 1908, his son Lee was appointed Special Agent of the U.S.D.A. at a salary of \$50 a month and Elam became more of a supervisor. The experimental work, being of extreme importance, was followed closely by officials of the U.S.D.A. In August of 1908, officials of the Department of Agriculture decided to expand experimentation on Elam's farm to include horticulture tests, which would start in the spring of 1909, under the direction of S. C. Mason.⁶² In the spring of 1909, J. D. Bunting was sent by the Department to spend the summer on the farm in helping to conduct these many experiments. Besides the work on alfalfa, corn and horticulture, considerable experimental work was done with cotton, which showed that this crop also had possibilities in Kansas.⁶³

This experimental work was concluded by the government in 1914, but much valuable information had been gained by the various tests in regard to what varieties of different crops were best suited to the Great Plains area of the United States and specifically Western Kansas. The United States Department of Agriculture's choice of Bartholomew as the man to supervise its extensive experimental work shows the high opinion it held of his ability in this field. His motto that "Good enough is not good enough" had stood him in good stead. Because of his ability and effort his farm stood out from his neighbors'. His oasis in a desert, figuratively

62. "Diary," August 28, 1908.

63. The National Cyclopedia of American Biography, Vol. XXVI, pp. 293-294.

speaking, led agricultural experts to believe that Western Kansas could produce bountiful crops. Their choice of his farm as the place to conduct extensive experimentation and of him as the man to supervise the experiments was no accident but was based on his ability, faith, hard work, and persistence that had made his farm blossom like a rose.

A HOBBY BECOMES A PROFESSION

Although Elam gained a certain amount of fame from his religious and agricultural work, it was a hobby that brought to him the greatest renown. Along with his motto, "Good enough is not good enough," he also had another which was, "Work hard, have faith and get a hobby."

In 1882, he began a botanical survey of Rooks County, Kansas, for no other apparent reason than an interest in plants. This interest became his hobby and he proceeded, through the following years, to spend a great deal of his spare time in pursuing knowledge concerning plants and their importance to mankind. Beginning in 1885 after Kellerman visited him, he gradually narrowed his interest or hobby of plants to the fungous plants (mycology). He spent much time during evenings by flickering candlelight learning Latin and basic information concerning mycology in order to pursue his hobby in this field. As his knowledge grew about fungous plants, he became more and more interested in them.

His collection and discovery of several fungous specimens entirely new to science in 1890 served to spur his efforts even more, and from then on his importance in the field of mycology grew steadily. In 1898 he filed his application for the degree Master of Science with the Regents of the Kansas State Agricultural College and took for his thesis "The Plant Rusts of Kansas."⁶⁴ The Master of Science degree was conferred upon him in November of that year.

⁶⁴. The National Cyclopedia of American Biography, Vol. XXVI, pp. 293-294.

By December, 1901, this hobby began to become more of a profession, for it was then that Professor J. B. Ellis of Newfield, New Jersey, because of failing health, turned over to Elam the subscription list and Ellis and Everhart's Fungi Columbiani.⁶⁵ Elam Bartholomew at once became editor and publisher. Elam had doubts about his ability to successfully edit and publish this publication but Professor Ellis had complete confidence that he could handle the job well. Professor Ellis's confidence in Elam's ability was rewarded with successful production of the publication, which was renamed Fungi Columbiani, for many years. When Elam assumed this position, he also assumed definite commitments and in turn received money for his efforts. Fungi Columbiani was not really a book or a magazine, but was editorial material which included specimens of fungus. Elam usually published Fungi Columbiani twice a year and each subscriber would receive 100 specimens of fungus in each copy. Since there were approximately 70 subscribers, this would require Elam and his family to package around 7,000 fungi each time the publication was sent out.⁶⁶ Each edition was entitled a "century," probably because it contained 100 different specimens. The first edition was called Century I and the following editions were numbered in their order of publication. Needless to say the proper packaging of these specimens and classification took many hours of patient labor, but before this could be done specimens of fungus had to be collected.

65. Stockton Review and Record, April 1, 1926.

66. "Diary," November 10-11, 1904.

It was in the field of collecting fungi that Elam made his greatest contribution to science. Over a period of years he became the greatest collector of fungous plants in America and well known throughout the world. Some of his records for collecting so many specimens in one day or in several days may still be unbroken. Of course some of the specimens published by him in Fungi Columbiani and in North American Uredinales, a publication of North American rusts first published by him in February of 1911,⁶⁷ were not collected by him. He corresponded with the outstanding botanists in the world and would on occasions exchange some specimens of fungus with them. In other words, he could collect some kinds of fungous plants in great numbers in Kansas without much trouble or expense and then exchange them for fungous plants grown elsewhere in the United States and in other regions of the world. While he thus exchanged some fungous plants with other botanists, he personally collected most of the specimens of fungus published in his two publications and in his herbarium.

In collecting this tremendous amount of fungous specimens, which were estimated eventually to be in the vicinity of 292,380, Elam traveled approximately 133,185 miles, mostly by rail.⁶⁸ His collecting trips took him to every state in the Union as well as Canada and Mexico.⁶⁹ Among these fungous specimens were more than 480 species new to science.⁷⁰ Considering these achievements in

67. Riverside Daily Press, California, December 10, 1934.

68. Sketch, p. 13.

69. "Diary," inclusive.

70. Sketch, p. 13.

the scientific field, it is not surprising that in 1927, on recommendation of the College of Deans of the Kansas State Agricultural College, the Board of Regents of that institution at the annual commencement exercises, in June, conferred on him the degree, Doctor of Science. He had taken for his matriculation dissertation "The Fungus Flora of Kansas," which later was published as a special college bulletin.⁷¹

In addition to these achievements of scientific importance, he was author of many papers and addresses on scientific topics. His major publication was a 238-page volume entitled the North American Plant Rusts published in 1928, with a second edition in 1933.

A brief summary of Elam's more noteworthy accomplishments of a scientific nature suggests the importance of this man as a scientist. But in order to understand the true significance of his accomplishment a closer study must be made. For instance, the fact that he traveled in all 48 states, Canada and Mexico does him little justice in showing how much he traveled in collecting specimens of fungi. Nor does the statement concerning his two publications which distributed specimens of fungus to State Universities, Agricultural Experiment Stations and interested scientific men do him justice. Such statements cannot begin to tell of the work necessary for successful collection and publication of fungi.

Most of the fungi collecting trips were made by Elam after he reached or was nearing what is now considered retirement age by many Americans. Indeed, he seemed to grow stronger with age

71. Ibid., p. 14.

and does not mention being sick nearly as often in this section of his diary as earlier. While this is not conclusive proof that he was not sick less frequently than when he was younger it is noteworthy.

Elam's early fungi-collecting trips were merely hikes in the vicinity of his home. Gradually he expanded these to trips to Eastern Kansas and elsewhere. Quite often he collected some specimens when attending religious and political meetings or when visiting relatives. In February of 1889, he mentions for the first time that he had sent a package of fungous specimens away for identification. Most of these specimens were collected along Bow Creek and several of them were found to be entirely new to science.⁷² By 1890, it is apparent that he was beginning to spend more time with his hobby. In January of that year, he stated that he was starting a private herbarium which would include plants from the United States and Europe. Much of his work in botany in the 1890's was of a broader nature than mycology. In February of 1892, he had an exhibit of 47 grasses found in Rooks County on display at the Annual Farmers' Institute meeting of which he was President.⁷³ During the previous year he had made an herbarium for the Stockton Academy. In January of 1892, he spent considerable time in preparing fungous specimens to send to the Division of Vegetable Pathology of the United States Department of Agriculture in Washington, D.C.⁷⁴ On February 4, 1893, he gave an address on "Why Study

72. "Diary," February 22, 1889.

73. Ibid., February 6, 1892.

74. Ibid., January 1, 1892.

Botany?" at the Stockton Academy. The latter tends to show that by that time he was being accepted as somewhat of an authority in the botanical field by local school authorities. As the number of fungous specimens which he collected continued to pile up, the keeping of them in usable condition and in a classified order presented somewhat of a problem. So in 1893 he had a special cabinet made in which to keep them. In the fall of that year, while visiting relatives near Louisville, Kansas, and botanical friends in Manhattan, Kansas, he spent considerable time in collecting fungous specimens. This might be considered his first important effort in collecting fungi outside of Reeks County. Many of the specimens collected on this trip were later exchanged with a botanical friend, W. C. Blasdale, of Berkeley, California, for different specimens.

By 1894 his knowledge of Kansas fungi had grown to such an extent that he considered publishing a pamphlet entitled "Kansas Fungi," which would have contained all the species of Kansas fungi known at that time. Due to interruptions of other types of work he failed to finish this as planned. Finally in 1898, he did finish the publication noted earlier, "The Plant Rusts of Kansas."⁷⁵ In October, 1898, he had an exhibit of 32,000 specimens of fungus at the Stockton Fair. This large exhibit shows that his collection of fungi was expanding rapidly.

With the coming of 1897, Elam decided to make extensive exchanges of fungi with mycologists in United States and Canada. In January of that year he had listed 445 specimens of fungi, of which he had duplicate specimens.

75. Sketch, p. 14.

January, 1898, brought about another combination business and fungi-collecting trip. On the 10th of this month, he left for Topeka, Kansas, to attend the annual meeting of the State Board of Agriculture. While on this trip, he collected some fungi along the Kansas River. On January 30, having returned home from Topeka, he suffered a severe attack of pain around his heart. He stated concerning this, "Around 8:30 a.m., I thought I was going to die." The attack left as rapidly as it had appeared and by nightfall his condition had greatly improved. One can only conjecture how near death came to interrupting the promising career of this man but he was spared and had no serious trouble of this sort again for many years.

The honor associated with receiving his Master of Science degree from Kansas State Agricultural College in the fall of 1898 seemed to give Elam additional determination to become a successful mycologist. In March of the following year he mentions that he was sending 500 specimens to F. S. Earle of Auburn, Alabama, and would receive \$25 for them.⁷⁶ This shows that his hobby was becoming more profitable. It was also at this same time that his friendship with Professor J. B. Ellis of Newfield, New Jersey, was growing stronger.

In August of 1899, he made his first major fungi-collecting trip. He left for Denver on August 17 and after arriving there proceeded to Gunnison, Colorado, by way of Colorado Springs, Pueblo, and Salida. He collected a few specimens along this route but it was around Gunnison that he collected the most. He had many inter-

76. "Diary," March 29-31, 1899.

esting hikes in the mountains surrounding this town and would usually obtain a good number of specimens each day. While there, he stayed with his brother George, who had moved to Gunnison at an earlier date. All the specimens gathered by him had to be put in presses, dried and packaged. Much of the latter work was done on rainy days.

He returned home on September 18, having traveled 1,510 miles, almost completely by rail. This trip was to become the pattern for future trips, for it pointed out certain habits that he followed on many of his trips. His staying part of the time with his brother was important because he quite often on future trips spent some time with relatives and at home of friends. While on this trip he spent considerable time in sightseeing, such as going up Pike's Peak, and on future trips he continued to do the same. He was an observant man and always, when possible, took time to see all of the interesting attractions throughout the United States, while on his collecting trips.

His fungi-collecting trip to Colorado was the only such trip made by him outside of Kansas before the turn of the century. Almost all of his extensive fungi-collecting trips were made later when he was in his fifties and sixties. Some of the fungi collected by him in Colorado was later exchanged with Professor P. Sydow of Germany for specimens collected there.⁷⁷ He also sent some fungous specimens to Dr. Michell Candoger of Arnas, France, in 1901.⁷⁸

77. Ibid., December 1, 1899.

78. Ibid., April 24, 1901.

In 1901, when he commenced editing the publication Fungi Columbiani, it tended to put him in a position where he was forced to collect large quantities of fungi. On the average he issued about 14,000 specimens of fungus yearly in this publication. However, when he became the publisher of Fungi Columbiani, he had a considerable amount of fungous specimens on hand, so did not have to make any long collecting trips for some time.

Whenever an issue of Fungi Columbiani was put out, it was largely a family affair. Rachel would spend much time in helping him label and package the many specimens. Each specimen had to be handled and packaged separately in small hand-made paper envelopes. This type of work required a great deal of patience and determination to be successfully accomplished. In later years some of the printing and making of envelopes was handled by the printing office in Stockton. Although the children helped to some extent, some more than others, it was the assistance furnished by his wife that was by far the most important. No matter what the nature of the work he undertook, she was always willing to give her all in helping him to accomplish it. Her knowledge of mycology was undoubtedly large and possibly most of his major publications should have borne her name as well as his. But she was unwilling to have them published in this way and chose instead to be the silent partner and was satisfied to see her husband receive most of the credit. Bartholomew's rise to importance in the field of mycology was not due to his wife's help but was greatly aided by it.

Much of his botanical and religious work between the years, 1890 and 1910, would not have been possible if his children had not been present to do most of the farm work. In no way should this reflect inversely on Elam's ability as a father and a provider. Almost all of the children of pioneer families were expected to do what they could to help their parents in their work. In fact, there are few families that can look at their children with the pride that Elam and his wife could look at theirs. All of his children, except of course his daughter, took up one of his occupations. Elbert became a successful botanist in his own right; Jesse became a minister and was to enjoy the rare privilege of officiating at the weddings of three of his brothers; Earl and Lee became successful farmers in Rooks and Osborne Counties of Kansas and, like their father, they had the habit of keeping weather records; George, who died at 23 in 1900, was to have become a minister.

Some criticism was directed toward Bartholomew for spending too much of his time away from his family, thus letting them accomplish the task of earning a living from the farm, while he journeyed over the countryside attending to religious and botanical matters. If such was the case one could expect to find a certain amount of resentment present in his children toward him. But no such resentment can be found and in fact it would indeed be hard to find a group of children who had more love and respect for their father than his. They, like their mother, understood the importance of his work and were always willing to do what they could to help him with it.

In August of 1906, Elam made his second major fungi-collecting trip outside Kansas. This, like the first, was also to Colorado. This trip started on August 13 and lasted about 10 days. While on the trip he worked with one of his closest botanical friends, Professor Bethel, of Denver, Colorado, part of the time. They collected fungous specimens in the general region around Denver and Boulder, Colorado. While botanizing around Lookout Mountain, west of Denver, they were caught in a thunderstorm and got drenched. This happened rather frequently in the mountains and was one of the inconveniences that fungi collectors had to endure. On this trip he traveled 1,140 miles and collected fungi which in specimen form were worth \$160.⁷⁹

Other activities were responsible for the long delay between Elam's first important fungi-collecting trip and his second. It was during these years of his life that he was carrying on extensive religious work in Rooks County and Northwest Kansas. He also built his fine house in this period of his life. These two activities and especially the first allowed him only time to accomplish a minimum of work in the botanical field. By 1907 he realized that he was trying to do too much, so he resigned his position as missionary. From then until his death, botanical work became his major occupation.

Again in August of 1907 he made a fungi-collecting trip to Colorado. However, this trip was cut short by a telegram which brought the news that his daughter, Elizabeth Engle, married in January of that year to Chester Engle of Liberal, Kansas, who was

79. Ibid., August 22, 1906.

visiting her mother, was sick with heart disease. He immediately returned home to be with her. Shortly afterwards she took a turn for the better and soon regained her health.

In 1908 Elam began in earnest the collection of fungi. True, he had already collected a considerable number of specimens but in this year his collecting trips started becoming more national in scope. As in 1906 and 1907 he made a short collecting trip to Colorado in August and while there collected about 4,200 specimens. However, the highlight of the year was a collecting trip he made to Arkansas in September and October. This expedition was not only his most important to that date but in some respects the most significant of his entire life. While in Arkansas, he collected around 10,000 specimens from September 23 to October 10. He stated in his diary on October 10 that he believed that this feat was a world record. Whether it was or not has not definitely been proved to the author's knowledge but it certainly was an outstanding achievement. To think that one man could collect such a large number of fungi specimens in such a short period of time is almost unbelievable. On September 24, in the vicinity of Rogers, Arkansas, he collected around 1,100 specimens which he also thought was a record for a single day.⁸⁰ After the results of this trip became known in the scientific world he was classified as one of the foremost collectors of fungi in the world.

In the following year Bartholomew and Rachel made one of their longer journeys together. In June they left for the Pacific Coast on a combination sightseeing and fungi-collecting trip. On this

⁸⁰. Ibid., September 24, 1908.

trip they visited many of the tourist attractions in Colorado, Arizona, California, Oregon and Washington. Most of his botanizing was in the region of Seattle where their daughter and her husband were then living. This trip, like so many of his trips, shows that he often combined work and pleasure. His diary contains enough information concerning his travels and places of interest visited throughout the United States that it could almost serve as a travel guide. His extensive travels by train, car, and foot allowed him to become acquainted with his country to a greater extent than most of his fellow countrymen. By the late 1920's when his extensive travels came to an end, he would have made a first-class geographer and historian of the United States. Any attempt to relate in detail all the places he visited in his life would require a great deal of space. The tables and maps at the end of this chapter show just how extensive his travels were. The areas marked on the maps show what states and countries he traveled in each year while collecting specimens of fungus. As stated earlier, he traveled approximately 133,185 miles in collecting fungi specimens.⁸¹

Because of the type of work which required Elam to travel he had the privilege of seeing many of America's foremost attractions in a way that few tourists ever see them. Many American tourists visit such places as Pike's Peak, Lookout Mountain, Yellowstone Park and Grand Canyon every year but few of them see much of the surrounding area. Elam spent days and sometimes weeks in such places collecting fungi. Thus he was able to observe in detail the real beauty of these regions where most tourists have only a

81. Sketch, p. 13.

superficial glimpse. Such visitors soon forget what they have seen and in addition they often see so much in a short period of time with modern transportation that they really see very little. Elam was indeed fortunate in that he managed to turn a hobby into a profitable profession which allowed him the pleasure of observing closely the wonders of America.

Thus while Bartholomew spent some time each year in traveling and collecting fungi specimens, he spent more time at home in classifying and distributing the specimens he had collected. The handling and classifying of such a large number of specimens required patience and ability. He soon learned that if a specimen was to be of value it must be easily found when wanted. The terms neat, methodical and accurate characterized his work in putting up his specimens. Most of the time he did not measure his success in terms of speed and accomplishments but in terms of completeness. In April, 1926, his herbarium proper contained 32,733 labeled specimens plus 70,250 labeled duplicate specimens. Besides these, he also had 15,070 specimens in quantity which were not yet worked up (labeled and classified). Altogether, he had more than 118,000 specimens which made his collection at that time the largest private herbarium in America.⁸² It is practically beyond understanding how he could with such little assistance create order out of such a magnitude of objects. But order he did create and his specimens were so carefully arranged that, in 10 seconds, he could find any one a person wanted.⁸³

82. Stockton Record and Review, April 1, 1926.

83. Rooks County Record, April 17, 1914, p. 7.

In 1911, he commenced the publication North American Uredinales, which dealt exclusively with the plant rusts. After the issuance of 35 century editions of this work he discontinued it in January, 1926, having distributed 175,000 specimens to educational institutions and interested individuals. With reference to his other publication Fungi Columbiensi, which he started publishing in 1901, he discontinued it in February, 1917, having distributed in it 252,700 specimens of fungous plants. In the two publications he thus distributed 427,700 specimens, and they were all labeled and in packets.⁸⁴ The magnitude of this task can be more fully understood when one realizes that 427,700 individual packets⁸⁵ had to be made and labeled, then a specimen enclosed in it. After this was accomplished 100 packets (all containing different specimens) would be enclosed in a package suitable for mailing--addressed, stamped and mailed. It would seem that such detailed labor would have become boring. But to him it was not only important but interesting, and these two factors evidently kept it from becoming monotonous. At least he never indicated in his diary or to friends that he was adversely affected by this type of labor.

By 1912, Flam's herbarium had grown so large and valuable that he decided to construct a building for it. In April he started construction of the building and finished it by July. This building was unique, as was his hobby, in that it was completely fire-proof. It was made of cement blocks, cement floor, steel ceiling

84. Stockton Record and Review, April 1, 1926.

85. Packets--Small envelopes, each made to hold one specimen.

EXPLANATION OF PLATE XI

Herbarium built in
1912

PLATE XI



and a steel-shingle roof. After it was finished he not only used it for the safekeeping of his herbarium but as a writing den and workshop.

The maps of his travels at the end of this chapter show that from 1908 to 1926 Eiam made most of his major fungi-collecting trips. During these years he was not a young man. However, he and his wife walked many miles over difficult terrain, at times, in collecting thousands of fungous specimens when many people of their ages were retiring from work. Actually, he seemed to become stronger physically as he aged. His reason for the ending of his long fungi-collecting trips in 1925 is interesting in this respect. One might think he would have given his age as the reason for ending these journeys (he was then 73) but instead on October 3, 1925, he wrote, "It is my firm purpose not to make any more long collecting trips because it no longer pays expenses."⁸⁶ Why these trips no longer paid expenses he does not say. But possibly his great success in gathering large numbers of fungous specimens and in distributing them had satisfied the demand to a large extent. With the end of his major collecting trips Bartholomew could look back over them with a great feeling of satisfaction, for they had not only made him a foremost American collector of fungous specimens, but they also had been responsible for many interesting experiences. For example, he attended three world fairs held in the United States while on collecting and religious excursions. His description and comments on these fairs which were held respectively at Chicago, 1893; St. Louis, 1904; and San

86. "Diary," October 3, 1925.

Francisco, 1915, are both interesting and educational. On July 28, while attending the World's Fair at San Francisco, he stated, it was "the best of all he had attended"⁸⁷ Besides having the unique experience of attending the World's Fairs, he also had the experiences of collecting fungi at such unusual places as Santa Catalina Island, 1915; Coronado Island (in the Niagara River near Niagara Falls), 1913, as well as many other interesting places. Indeed, his travels had taken him into the remote areas as well as the great cities of his country, and if ever a man felt satisfaction it should have been Elam Bartholomew in 1925 as he ended this exciting and remarkable phase of his botanical work.

87. Ibid., July 28th 1915.

FUNGI-COLLECTING TRIPS

1899. Aug. 17-Sept. 18. First major trip. Denver, Colorado Springs, Manitou Springs, Pueblo, Salida, and Gunnison, Colorado. Returned essentially over same route. (1,510 miles)
1906. Aug. 13-Aug. 23. Denver, Boulder, Lookout Mountain, Denver and home. (1,140 miles)
1907. Aug. 12-Aug. 18. Denver, Eldora, Denver and home.
Sept. 9-Oct. 12. Kansas City, Kansas; Farmington, Illinois; Missouri; Kansas City and home.
1908. Aug. 5-Aug. 26. Denver, Glacier Lake, Lookout Mountain, Denver and home. (4,200 specimens)
Sept. 21-Oct. 14. Kansas City; Rogers, Arkansas; Fayetteville, Arkansas; Batesville, Arkansas, and home over same route. (Set a record on this trip by collecting nearly 10,000 specimens between Sept. 23 and Oct. 10.)
1909. June 21-Sept. 10. Colorado Springs, Colorado; New Mexico; Arizona (Grand Canyon); Los Angeles; San Francisco, California; Portland, Oregon; Seattle, Washington; Idaho; Utah; Colorado and home.
1910. May 19-June 23. Kansas City; Chicago; Pittsburgh, Pennsylvania; Washington, D.C.; New York City; Boston; Portland, Maine; New Hampshire; Delaware; Granville, Ohio; Kentucky and home.
Aug. 9-Aug. 16. Denver and vicinity and home.
1911. Aug. 10-Sept. 2. Denver; Laramie, Wyoming; Denver and home.
1912. July 9-Oct. 8. Denver, Colorado; Wyoming; Idaho; Montana; Seattle, Washington; Canada; Washington; Idaho; Salt Lake City, Utah; Colorado and home. (About 20,000 specimens)
1913. June 20-Aug. 2. Kansas City, Missouri; Illinois; Ohio; Pittsburgh, Pennsylvania; Niagara Falls; Canada; Cayuga Island in Niagara River; Madison, Wisconsin; Iowa and home. (Over 4,500 specimens)
Aug. 13-Sept. 23. Denver; Billings, Montana; Yellowstone Park; Colorado and home. (Over 16,000 specimens; his son Elbert helped collect some.)
Oct. 6-Oct. 30. Kansas City; Shreveport, Louisiana; Spiro,

Oklahoma; Fort Smith, Arkansas; Missouri and home. (Collected over 30,000 specimens this year worth about \$2,000.)

1914. June 15-June 25. Nebraska; Iowa; Minneapolis, Minnesota; Fargo, North Dakota.
- Aug. 25-Sept. 9. Denver, Steamboat Springs, Denver, Colorado, and home.
- Nov. 3-Dec. 9. Kansas City; St. Louis, Missouri; Knoxville, Tennessee; Asheville, North Carolina; Columbia, South Carolina; Atlanta, Georgia; Jacksonville, Florida; Mobile, Alabama; New Orleans, Louisiana; Jackson, Mississippi; Memphis, Tennessee; Arkansas; and home. (4,100 miles. Had now visited every state except Nevada.)
1915. June 24-Sept. 24. Denver; Cheyenne, Wyoming; Salt Lake City, Utah; Nevada; Los Angeles, San Diego; Tijuana, Mexico; Coronado Islands, Mexico; Los Angeles, Santa Catalina Island, Visalia, Berkeley, California; Portland, Oregon; Washington; Idaho; Billings, Montana; Wyoming; Denver and home. (Over 15,000 specimens)
1916. Aug. 15-Sept. 2. Nebraska; Cheyenne, Wyoming; Fort Collins, Boulder, Denver, Colorado Springs, Colorado, and home.
1917. June 7-Sept. 4. Denver, La Junta, Colorado; Raton, New Mexico; Albuquerque, New Mexico; Williams, Arizona; Barstow, California; Las Vegas, Nevada; Salt Lake City, Utah; Idaho; Missoula, Montana; Billings, Montana; Bismarck, North Dakota; Rosco, Moberge, South Dakota; Billings, Montana; Wyoming; Denver and home.
- Sept. 13-Oct. 2. Nebraska; Iowa; Janesville, Wisconsin; Chicago; Three Rivers, Michigan; South Bend, Indiana; Hopkins, Missouri; Kansas City and home.
1918. Oct. 6-Nov. 2. Parsons, Kansas; Springfield, Missouri; Memphis, Tennessee; Birmingham, Alabama; Atlanta, Georgia; Seneca, South Carolina; Decatur, Tuscumbia, Alabama; Corinth, Mississippi; Hoxie, Arkansas; Mammoth Springs, Arkansas, and home.
1919. Aug. 18-Oct. 30. Atchison, Kansas; Pickering, Missouri; Waterloo, Iowa; Madison, Wisconsin; Chicago, London, Canada; Niagara Falls; Lyndonville, New York; Albany, New York; Rutland, Vermont; Bullows, Vermont; Keene, New Hampshire; Portland, Maine; Boston (Harvard U.); Providence, Rhode Island; Plainfield, Hartford, Connecticut; Newark, Delaware; Washington, D.C.; Virginia; Grafton, West Virginia; Parkersburg, West Virginia; Cincinnati, Ohio; Kentucky; Farmington, Illinois; and home. (Traveled in 21 states and

Canada, 6,100 miles and collected about 15,000 specimens.)

1920. Sept. 15-Oct. 15. Columbus, Kansas; Oklahoma; Little Rock, Arkansas; Memphis, Tennessee; Chattanooga, Tennessee; Marietta, Georgia; Murphy, North Carolina; Rome, Georgia; Decatur, Alabama; Tuka, Mississippi; Grand Junction, Tennessee; Springfield, Missouri; and home. (2,770 miles in 9 states and over 7,500 specimens)

1921. July 12-Aug. 23. Denver; Wyoming; Billings, Red Lodge, Montana; and home over same route.

Aug. 30-Sept. 9. Sioux Falls, South Dakota; Beaver Creek, Minnesota; Sioux City, Iowa; Avoca, Iowa; Omaha, Nebraska, and home.

Sept. 19-Oct. 15. Oklahoma City, Oklahoma; Ardmore, Oklahoma; Gainesville, Waco, Dallas, Longview, Texas; Shreveport, Louisiana; Texarkana, Texas, and Arkansas; Mena, Arkansas; Spiro, Oklahoma; Joplin, Missouri, and home. (5,000 specimens)

1922. Crawford, Nebraska; Hot Springs, Hill City, Deadwood, Spearfish, Rapid City, Hot Springs, Edgemont, South Dakota, and home. (3,800 specimens)

Sept. 18- Oct. 21. St. Louis, Missouri; Illinois; Vincennes, Indiana; Cincinnati, Ohio; Newark, Ohio; Parkersburg, West Virginia; Huntington, West Virginia; Ashland, Kentucky; Lexington, Frankfort, Louisville, Kentucky; and home. (7,200 specimens)

1923. April 24-May 24. Wichita Falls, Texas; Chickasha, Oklahoma (Rachel and Elam became sick here of ptomaine poisoning from eating chicken sandwiches. Only serious trouble from sickness ever suffered during their travels.); home.

Aug. 16-Sept. 22. Denver; Billings, Ten Sheep, Montana; Boulder Park (Big Horn Mountains); Sheridan, Wyoming; Buffalo, Wyoming; Edgemont, South Dakota; Nebraska; Denver, and home. (5,000 specimens)

Sept. 25-Oct. 13. Willow Springs, Poplar Bluff, Paxico, Eiversonwood, Cape Girardeau, St. Genevieve, St. Louis, Missouri, and home. (Collected around 10,600 specimens this year.)

1924. June 23-Sept. 27. Denver, Colorado; Cheyenne, Thermopolis, Wyoming; Yellowstone Park; Jackson Hole Country, Wyoming; Idaho; Utah; Nevada; Riverside, California;

Reno, Nevada; Salt Lake City, Utah; Denver, and home.
(6,945 miles and over 5,500 specimens)

Oct. 1-Oct. 21. Kansas City, St. Louis, Missouri;
Illinois; Nashville, Tennessee; Birmingham, Alabama;
Atlanta, Georgia; Birmingham, Alabama; Nashville, Ten-
nessee, and home.

1925. June 15-June 30. Kansas City, Jefferson City, Missouri;
Louisiana, Missouri; Hannibal, Missouri; Quincy, Illinois;
Atchison, Kansas, and home.

Aug. 14-Aug. 25. Denver, Colorado, and home.

Sept. 16-Oct. 3. Kansas City; St. Louis; New Athens,
Illinois; Cairo, Illinois; Bardwell, Kentucky; Clinton,
Kentucky; Martin, Jackson, Tennessee; Black Rock, Ar-
kansas; Fort Scott, Kansas, and home. (Last long trip--
several more short ones to Colorado, etc.)

Fungi-Collecting Trips

The following maps show where Elam Bartholomew collected fungi during the years in which he gathered the greatest portion of his specimens. The states and foreign countries covered by slanted lines are the ones he collected specimens in.

PLATE XII

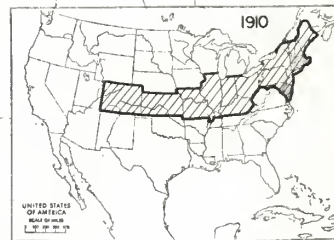
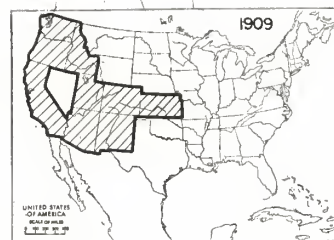
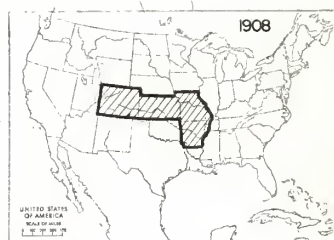
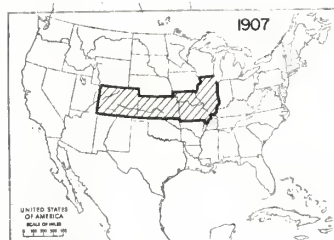
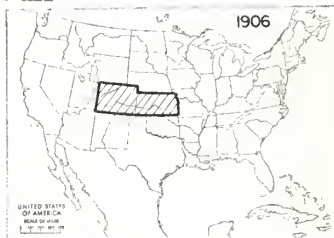
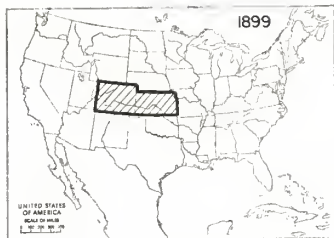


PLATE XIII

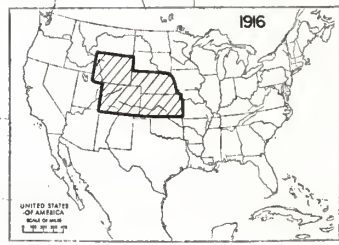
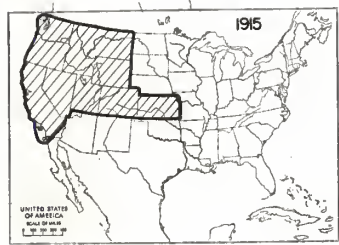
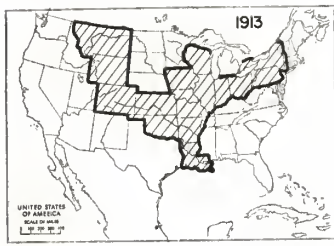
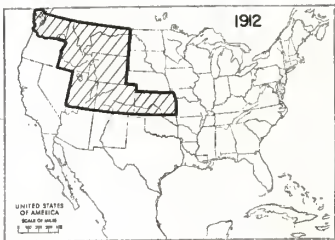
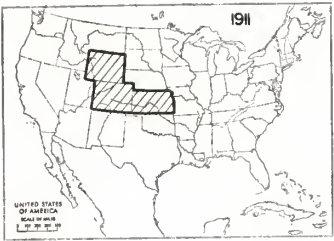


PLATE XIV

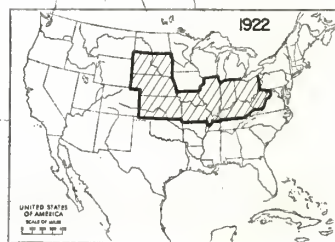
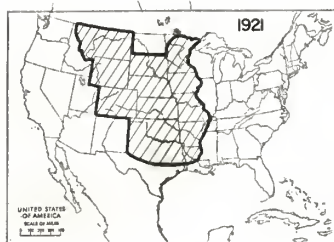
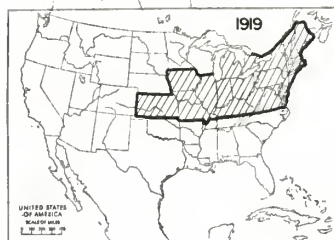
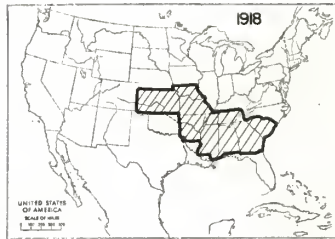
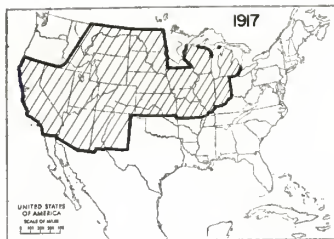
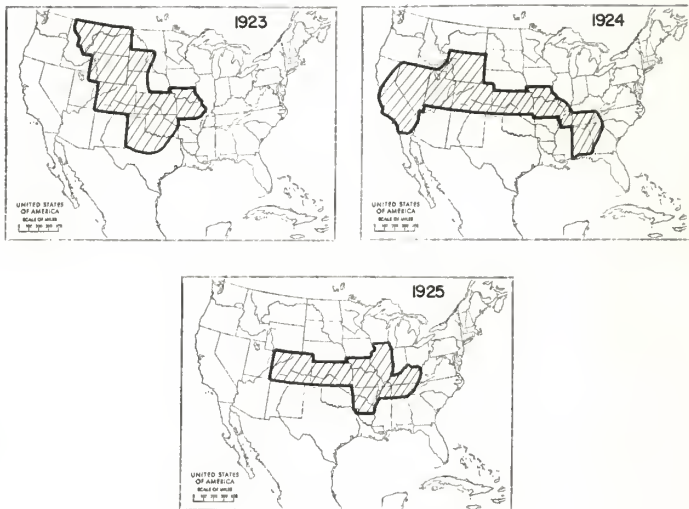


PLATE XV



FROM STARDUST TO DUST

Fame is a rather elusive element. It comes and goes like the wind. Almost every human being wishes to gain at least a portion of it, if only for a little while. Only a few people have managed to remain famous for any great period of time.

Undoubtedly Elam, like other people, wished for a measure of fame but he too found out that the fame of today is usually gone tomorrow. His outstanding work in agricultural experimentation was soon forgotten by the majority of the people, but in the field of mycology he piled one successful accomplishment on another, until nearly the time of his death. Thus as long as he lived he was recognized by many who knew him as being somewhat of a famous man.

In 1927, Elam may have reached the high point of his life as far as receiving recognition for his work. For it was in that year he received an honorary Doctor of Science degree from Kansas State Agricultural College. Since he was a scholarly individual, it is not surprising that he considered this the greatest of all the honors bestowed upon him in his life. But when he accepted this degree he also felt that he must accept with it certain obligations. Up to that time he had turned down a number of lucrative offers for positions in colleges. He had repeatedly stated that he preferred to work in private on the farm which he had homesteaded in the waning days of the buffalo and antelope.⁸⁸ The

88. Mycologia, Vol. XXVII, No. 2, March-April, 1935, pp. 91-95.

receiving of this degree and the passing on of many of his long-time friends now changed his mind.

In 1929, Bartholomew sold his farm and moved to Hays, Kansas, taking the position at the Kansas State Teachers College of Hays as Curator of the Mycological Museum.⁸⁹ This decision to leave the farm was probably the hardest decision of his life. There he had lived for 50 years and in that period had built it from a barren prairie into one of the most attractive and productive farms in Western Kansas. Many landowners develop a sense of devotion or love to their land, and Elam's love for it may have been stronger than that of many of his fellowmen. For years he had worked close to the earth and plant life. His diary, which usually contains information concerning his actions, is strangely blank on his attitude toward the selling of his land. One might assume that he did not consider his moving to Hays and the selling of his farm as important enough to comment about. But such an assumption after considering what he had achieved on the farm and how long he had lived there does not make much sense. As one reads through his diary, a number of his statements leave the impression that he believed his diary would some day be read by people other than his own immediate family. If this is correct, it might partly explain why he does not comment more on his moving to Hays. Possibly his age was also a factor because older people are often more reluctant to divulge information concerning why they took a certain course of action and how they felt about it. Such was probably the case with Elam. For instance, when George died, in

89. Sketch, p. 6.

1900, he made no attempt to restrain his feelings in his diary. But by 1927, he was considerably older and things did not look quite the same to him as they did when he was younger.

In 1929, Lee, his youngest son, was still living on Elam's farm in an adjoining house and doing the farm work. It seems that Elam would have sold him the farm except that Lee did not feel financially able to buy it. Hence the farm was sold to B. D. Stephens for \$15,000, with Lee receiving one-third of the amount.⁹⁰ This transaction, while not a happy one, was profitable, for it was not long afterwards when the price of land fell greatly. In the years that followed, this beautiful farmstead soon became just another farmstead and in time deteriorated even more. For it an era had ended, a peak had been reached and in only a matter of years nature and man combined their efforts successfully to undo what had taken nearly a lifetime of labor to build.

As the attractive farm once owned by Elam began to deteriorate, so did the man who built it. His position at the Kansas State Teachers College of Hays was important but age was beginning to leave its mark. The most significant project undertaken by him at the college was the building of an herbarium. This herbarium was named after him and eventually contained over 5,000 specimens of fungus.⁹¹ In addition to founding this herbarium, he also published his second edition of North American Uredinales, having put out the first edition in 1928. This book, which would be meaningless to persons without some knowledge of botany, was 13

90. "Diary," August 6, 1928.

91. Kansas City Times, April 13, 1950.

years in the preparation. It was a scientific work of 238 pages dealing with rusts of North America and the West Indies.⁹² In the first edition Elam listed 1,266 valid species and 2,540 synonyms. His second edition was enlarged to 250 pages.

During the last few years of his life Elam continued his habit of collecting fungi by making short field trips with botany students. His last out-of-state excursion, which was to Colorado in August of 1934, was largely for a vacation, but some fungi were collected.

In November, 1934, Elam's life came to a close and he passed from this world on the 18th day of that month. Later he was buried in the Bow Creek Cemetery--the cemetery which he had originally helped found. His wife Rachel lived out her days in Hays and was buried beside him in March, 1941. His sons and daughter have continued to lead the type of lives that would have made their father proud. The diary which he started so many years earlier had his last entry on September 21, 1934. Although his entries were of a random fashion in the last few years of his life, he had continued this worthwhile habit almost to his death.

A brief survey at the time of his death shows that starting with 1887, he had collected around 292,380 specimens of fungi.⁹³ While doing this he discovered over 480 species of fungi entirely new to science⁹⁴ and acquired international fame as a discoverer, collector, and distributor of thousands of forms of fungous plants.

92. Topeka Daily Capital, December 24, 1933.

93. The National Cyclopedia of American Biography, Vol. XXVI, pp. 293-294.

94. Loc. cit.

Altogether, he had distributed about 427,000 specimens of fungi during his life. Many of the specimens were collected by him personally and the remainder acquired by outright purchase or exchange with other collectors. Through the latter part of his life he possessed the largest private herbarium in the United States and possibly in the world. He began the disposal of this herbarium before his death by donating over 5,000 labeled specimens of fungous plants to the Kansas State Teachers College of Hays,⁹⁵ 3,500 labeled specimens to Park College of Parkville, Missouri, and a large amount (5,000 or so) to the College of Emporia.⁹⁶ Evidence is inconclusive about what he sold and what he donated. Throughout his life he sold specimens of fungi to interested individuals and institutions scattered over the world. The largest sale he ever made to one institution was in 1928, when he sent 6,400 labeled specimens to the Egyptian Government experiment station at Cairo, Egypt. For this order he received \$419.⁹⁷ In 1927, he sent 1,700 classified specimens to the Cawthorn Institute of Nelson, New Zealand, and in the same year he also sent 1,800 specimens to the University of Kansas. As examples of some of his distributions, these clearly show the widespread nature of his work. Another example of how well known he and his work were can be found in his correspondence. There are approximately 4,000

95. Sketch, p. 17.

96. The Bartholomews also gave to the College of Emporia \$1,000 on November 8, 1915, to be known as the "George E. Bartholomew Scholarship" in honor of that son. "Diary."

97. "Diary," September 5th and 19th, 1928.

letters in the Archives of the Kansas State Historical Society at Topeka, Kansas, many of which he had received from noted botanists all over the world.

At the time of his death he was a member of the American Association for the Advancement of Science, Kansas Academy of Science, American Forestry Association, American Phytopathological Society, and the Delta Upsilon honorary scientific society.⁹⁸ After his death, the greatest share of his herbarium, about 30,000 specimens, was sold to Harvard University at a moderate price. Although it was never possible to fully determine the value of his private herbarium, partly because of its changing composition, its value was estimated at something under \$15,000 in 1929.⁹⁹

Elam also played a major role in making Kansas an outstanding state in botanical work. In 1927, he presented "The Fungus Flora of Kansas" as contribution No. 268 of the Kansas Agricultural Experiment Station. In this publication he listed 1,829 species as having been found in Kansas. Almost 20 per cent of these (360) were new to science. Up to the time of this report only about 465 species had been listed as having been found in Kansas. The great increase was due almost entirely to his work. In recommending to the Dean that the "Fungus Flora of Kansas" be published, Dr. L. E. Melchers, botanist at Kansas State Agricultural College, said in part: "Dr. Bartholomew is the Country's foremost collector of fungi...."

98. The National Cyclopaedia of American Biography, Vol. XXVI, pp. 293-294.

99. Sketch, p. 6.

It is largely due to Dr. Bartholomew's research efforts that Kansas ranks so high in its report of so large a number of species of fungi."¹⁰⁰

At the time of his death, he had thus acquired a great deal of fame through his botanical work. But while he was recognized readily by plant scientists for his outstanding work he did not always receive the same recognition from his friends and acquaintances in Stockton and the surrounding area.

100. Mycologia, Vol. XXVII, No. 2, March-April, 1935, pp. 91-95.

LOCKING BACK

To end the story of Elam Bartholomew with his death, without considering such factors as the importance of his work to mankind, how important his acquaintances considered him and his work, and his popularity in his home community and elsewhere, would be an injustice to him and others.¹⁰¹ In attempting to answer such questions as these, evidence of a speculative nature must be relied on heavily.

How important did the residents of Elam's home community consider him and his work? No two persons felt exactly the same toward him and his work but in general the conclusion can be drawn that they did not fully understand his work nor his position in the field of mycology. This conclusion was arrived at for a number of reasons.¹⁰² Few people could be found outside of his immediate family, 24 years after his death, who had any idea of how important he or his work was and there are still many persons living in his home community who knew him personally. Even though it does seem strange that a man could gain national recognition for

101. The author wishes it to be known so that the reader can fully understand his position, that he grew up on a farm located about seven miles distant from Elam's farmstead.

102. While the author of this paper grew to manhood in the same community where Elam lived most of his life, he never knew Elam personally, not being born until 1931. However, it would seem likely that knowledge of such a man should become known to him as he grew to manhood but this was not the case. How could this happen? Some people might answer this question by saying that the author was an exception and that a number of other persons who grew up with him in the vicinity of Stockton did hear of Elam and his work. While this answer to the question could be right, the author, after talking to a number of the residents of Stockton and the surrounding area, feels that it is not so.

accomplishments but yet not be recognized locally as an important person, it is not altogether surprising once the circumstances are known.

Most of the neighbors knew little about such work and consequently what they did not fully comprehend they did not recognize as too outstanding. Even though Bartholomew received an honorary Master of Science degree and an honorary Doctor of Science degree, many of the local people had no idea of the significance attached to these honors. Scientists throughout the world in the various fields of botany were quick to recognize the importance of Elam's scientific work because they fully understood it. But his neighbors, in general, even though many articles appeared in the local paper in regard to his achievements, were unwilling to grant him the same recognition. For instance, one well-educated individual of his community thought there was something shady about Elam receiving a position at the Hays Kansas State Teachers College in 1929. That an educated person would think such a thing certainly shows a lack of understanding about Bartholomew's accomplishments. Before 1929 he had turned down several offers of good positions in other colleges and for the government.¹⁰³

Other reasons also played some part in causing what fame Elam had gained in his home community to be largely buried with his body in November, 1934. One person who knew him made this remark: "He fully knew his importance." Another local resident

103. In February, 1901, Elam received an offer from Kansas State Agricultural College to teach in the botany department, which he refused. ("Diary") On March 13, 1909, he was offered a job as dry farming demonstrator by the institute department of K.S.A.C. at a salary of \$1,500 a year. Also refused. ("Diary")

stated, "Elam was always right and everybody else wrong if they disagreed with him." These statements are rather blunt and a goodly number of the local residents were found to share them. A number of them thought that Elam felt that he was better than they. Most of them were willing to admit that he had achieved greater success in his fields of endeavor than they had but they did not like the superior attitude that they felt he adopted. How many people felt this way? This question has no answer, and any guess would be subject to serious error.

There is also a great deal of evidence available to support the theory that at times his religious activities aggravated a number of people. To say the least, he believed strongly in God and tended to take a narrow view of people who did not. This alone may not have hurt his popularity but when he openly let it be known that he did not approve of the actions of certain individuals it did hurt his position in the community. An example of this is the comment in his diary concerning a Bow Creek township Sunday School Convention held in 1896. At this time he wrote, "This convention was a failure. A good large crowd was present but it was really only a social party. Some individuals were selling cigars for the benefit of the Sunday School...."¹⁰⁴ Later in the year in his yearly Sunday school report, which was published in the local paper, he made even stronger remarks in regard to the activities of individuals at this convention. In fact, some residents of the area declare that the reason for the quick vanishing of his fame in his immediate neighborhood after his

104. "Diary," June 16, 1896.

death was due to a religious squabble. In his diary Elam clearly states at various times that he was involved in such incidents. On January 27, 1895, he and his wife resigned their positions as Sunday school teachers because of such an incident. At this time Elam stated, "Wilkin--deviltry too forceful."¹⁰⁵ All of this may tend to leave the impression that Elam was somewhat of a religious fanatic but such was not the case. For instance, on September 16, 1914, after hearing a sermon by Billy Sunday in Denver, he stated, "It was a typical evangelistic sermon." This statement indicates the sincerity of his religious convictions and shows that he did not approve of the people who attempted to make a show out of it any more than those who lacked his convictions. He was never two-faced when the Lord's work was involved. He believed strongly in the Bible and God and never even at the price of friendship wavered in his position. A man of such convictions is somewhat of a rarity.

He not only took a strong stand on religion but in politics as well. But it appears that his firm stand in politics, since he was a Republican, did not especially arouse ill feelings against him. The reason for this was partly because his community was inhabited by few people who were not of Republican sympathies.

105. They accepted similar positions later in the church and the name of this church was changed from "Bow Creek" to "Mount Nebo." In 1912, the Bartholomews and a number of the members of the church constructed a new church building at a cost of \$2,800 in the face of bitter opposition within and without the church. ("Diary," June 2, 1912)

Another reason why Elam's fame vanished so quickly in his own community is that certain individuals may have resented his successful achievements and the honors he received for them.¹⁰⁶

A brief summary of why the importance of such a man should vanish so quickly after his death can draw no absolute conclusion. But certainly general knowledge of his international importance did disappear quickly in his home community. Some of the reasons for this were a lack of understanding of his accomplishments, a refusal by some people to accept the idea that a local person could be really important, ill feeling against him because of religious activity and perhaps resentment for his success. Even the people who knew him best have almost let time bury the knowledge of him and his achievements. They have sent their children to school to study about the great men of the past, but have failed to let them know that one of the pioneers of Rooks County made important contributions to agricultural and religious development in the United States and that his scientific efforts gained world-wide attention. To these children the volumes of history contain information that does not apply locally.

It is not necessary for important people who come out of the agrarian tradition of rural America to move to large cities. However, too often such is the case if they wish to receive recognition for their accomplishments. It seems that rural inhabitants tend to rationalize, "If he is important, why does he continue to

¹⁰⁶. One would expect difficulty in finding evidence to back up such a supposition. But people are human and as such, it is quite probable that some of his acquaintances may have resented his success to some extent.

live in this unimportant place?" If Klam had accepted the position in 1901 which was offered to him by the Kansas State Agricultural College, it is likely that residents of the Stockton area would have recognized him as a more important individual, assuming, of course, that he would have gone ahead and accomplished the same work in mycology that he achieved while living near Stockton and at Hays. But such was not the case, and he chose instead to live and work among the people he had known so long. His reward for such a decision was not all that it should have been. Spending so much of his life in one locality allowed the residents of that area to come to know him too well as a human being to be able to consider him a great person. Undoubtedly these very people considered other Americans as great without ever thinking that they, too, were human beings and as such had likes, dislikes, shortcomings and feelings. Such is the lesson of history. If one aspires to greatness, never let people become acquainted too intimately.

Who can judge with accuracy the contributions of great Americans to their country or their fellowmen? And so it is with Bartholomew's contribution to mankind in the field of mycology, the study of fungi. To even partly understand the importance of this man's scientific work, one must have some knowledge of fungi and their habits. What habits do fungi have? While clinging to their host plants, some they ruthlessly destroy; others they encourage in their growth. They are of distinct races, having distinct tastes. Some thrive on rye and barley but refuse to attack wheat and oats; others act vice versa. Whole crops can be ruined by

the invasion of a certain species, and eradication is a difficult problem; others will invade tree roots, causing them to become deformed or to die of dry rot. On the other hand, the exotic and aristocratic orchid needs a fungus-infected soil to germinate its seedlings. Some evergreens and shrubs as well as many other flowering plants wither when taken from their fungus-infected peat. Here arises a paradoxical parasite--one which gives and takes, but gives more to mankind as it is better understood. Elam's own comment on the importance of this phase of his work is interesting.

"You may think, and probably do think that this is a lot of nonsense about something of no concern to anyone; but as a matter of fact, the world is so cluttered up with undigested food and waste material that if it were not for fungi and bacteria, it would be an impossible place to live. It is fungi and bacteria that are responsible for the decay of stubble, weeds, etc., that are plowed under."¹⁰⁷

The above clearly illustrates why proper evaluation of Elam's contributions to mankind is impossible. His scientific achievements have benefited mankind in many ways all over the world. But yet the sad fact remains that, while mankind has benefited from his work and may continue to for centuries, the knowledge of this man and his work has almost vanished in his home community. It may be true that he fully knew his importance, but it is also true that few people outside his fields of endeavor knew or recognized it. He had his shortcomings like all men but at the same time his life was certainly a full one and had many satisfactions.

The beautiful farmstead he built in Bow Creek Valley has suffered the same fate as the knowledge of his many achievements.

107. State College Leader, Hays, Kansas, November 16, 1933.

Today there is little left there to indicate to the passerby that once it was one of the most attractive in Western Kansas. It, like man's frail body, proved to be only temporary.

Elam Bartholomew was buried in Bow Creek Cemetery in November, 1934, but evidently against the wishes of some people, it was impossible to bury with him what he had done. He left behind him a lifetime of successful work for the benefit of mankind. His political opponents had managed to keep him from holding any major elective office, but their victory also proved to be his victory, as he turned his energy to other fields of opportunity and achieved success that none of them would have thought possible.

It took much labor and years of patient toil to complete such a life as this. As his days in this world drew to an end he could say with all sincerity, "The time of my departure is at hand, I have fought a good fight, I have finished my course, I have kept the faith; henceforth there is laid up for me a crown of righteousness, which the Lord, the righteous judge, shall give me at that day." (2 Timothy 4:6-8)

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The author wishes to acknowledge the help and support of his major professor, Dr. Homer E. Socolofsky, of the Department of History, Government, and Philosophy of Kansas State University, whose patient guidance from the beginning to the end of this thesis was invaluable. A debt is also owed to Jesse, Lee and Earl Bartholomew, who provided much valuable material about their father. Residents of Stockton and the surrounding area, likewise, provided information which was interesting and appreciated. The author in addition wishes to express his gratitude to the staff of capable librarians at the State Historical Society in Topeka for their generous assistance.

BIBLIOGRAPHY

Books

- Andreas, A. T. History of the State of Kansas. Chicago: A. R. Donnelley and Sons, 1883.
- Annals of Kansas, 1886-1925. Two volumes. Topeka: Kansas State Historical Society, 1955.
- Hicks, John D. The American Nation. Cambridge, Massachusetts: The Riverside Press, 1941.
- Isely, Bliss, and W. M. Richards. The Story of Kansas. Topeka: Kansas State Printer, 1953.
- The National Cyclopedia of American Biography, Vol. XXVI.
- Zornow, William Frank. Kansas: A History of the Jayhawk State. Norman: University of Oklahoma Press, 1957.

Newspapers

- Kansas City Star, April 12, 1914.
- Kansas City Times, April 13, 1950.
- Plainville Times, November 27, 1907.
- Riverside Daily Press, California, December 10, 1934.
- Rooks County Record, December 6, 1879--November 1934.
- State College Leader, Hays, Kansas, November 16, 1933.
- Stockton Record and Review, April 1, 1926.
- Topeka Daily Capital, June 15, 1924--December 24, 1933.

Periodicals, Journals, Publications of
Professional Organizations

- Mycologia, Vol. XXVII, No. 2 (March-April, 1935).
- Tinker, E. F. "Here Is a Man Whose Hobby Has Made Him Famous."
American Magazine (November 1919).

Transactions of the Kansas Academy of Science, Vol. XXXVIII (1935).

Unpublished Materials

Personal Diary of Elam Bartholomew and papers, January 1, 1871--
September 21, 1934.

Miscellaneous

Biographical Sketch of Dr. Elam Bartholomew, n.d., n.p.

Interviews

Earl Bartholomew, several times in 1958 and early 1959.

Jesse Bartholomew, September 1958 and January 1959.

Lee Bartholomew, November 1958.

APPENDIX I

Publications of Elam Bartholomew

Fungi Columbiani (composed of fungous specimens). Issued 36 centuries.

North American Uredinales (composed of plant rusts of North America). Issued 35 centuries.

Fungous Flora of Kansas. Dissertation for Doctor of Science degree, Kansas State Agricultural College, 1927.

North American Plant Rusts. First edition (1928), 238 pages, second edition (1933), with additional pages.

"The Plant Rusts of Kansas." Thesis for Master of Science degree, Kansas State Agricultural College. (Not published)

Bartholomew was also the author of numerous short papers and addresses on religious, agricultural and scientific topics. For example, January 15, 1925, he addressed the Kansas State Board of Agriculture with a paper entitled "Some Enemies of Plant Life--An Unseen World."

APPENDIX II

Principal Scientific Organizations in Which
Elam Bartholomew Held Membership

The American Association for the Advancement of Science.

The American Phytopathological Society.

The Kansas Academy of Science.

The National Historical Society.

Delta Upsilon (honorary scientific society).

American Forestry Association.

Travel Club of America.

Rocks County Farmers' Institute (president and secretary for a
number of years).

ELAM BARTHOLOMEW, PIONEER, FARMER, BOTANIST

by

LEONARD ERLE MUIR

B. S., Kansas State University
of Agriculture and Applied Science, 1953

AN ABSTRACT OF A THESIS

submitted in partial fulfillment of the

requirements for the degree

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Department of History, Government, and Philosophy

KANSAS STATE UNIVERSITY
OF AGRICULTURE AND APPLIED SCIENCE

1959

Elam Bartholomew was born at Strasburg, Pennsylvania, June 9, 1852. He was the fourth son of George E. and Fanny (Bowman) Bartholomew in a family of eight sons and one daughter. When he was two years of age his parents moved to a farm near Granville, Ohio. In March, 1865, the family removed to a farm near Farmington, Illinois, where he grew to manhood. By supplementing his district school training with assiduous home study he passed an examination in the common school branches and in the elements of the natural sciences. In the autumn of 1873 he was engaged to teach a five-months term of school in a neighboring country district.

With the close of the school in the following spring, young Bartholomew turned his face toward the land of the setting sun. He reached Rooks County in March, 1874, and settled about nine miles north of Stockton in Bow Creek Valley where he made his home until July 31, 1929, when he and his wife moved to Hays, Kansas. There Elam served as Curator of the Mycological Museum at the Kansas State Teachers College of Hays.

In the winter of 1875-76 he taught a three-months term of school on Bow Creek in Phillips county. In June, 1876, he returned to his former home at Farmington, Illinois, and on the 14th day of that month was united in marriage to Miss Rachel Montgomery. In September the young couple journeyed to Kansas where they began the battle of pioneer life on their homestead in a little shack of newly sawed cottonwood lumber. The shack was 14 by 22 feet in size and in this humble home seven children were born--six sons and one daughter.

As a pioneer, however, Elam did not settle down to life as a mere tiller of the soil. In public matters he was always an active factor, whether in politics, education or religion. In the fall of 1876 he was elected to the office of Clerk of the District Court of Rocks County. He was a Republican and as a delegate attended many County, Congressional and State nominating Conventions. In 1890, 1900 and 1910 he was federal census enumerator for his district.

From 1891 to 1893 he was engaged by the United States Department of Agriculture to conduct on his farm experimental work relative to the prevention or eradication of grain rusts by spraying and soil treatments. Some accounts of this work are given in the department yearbook for 1892 and the Journal of Mycology for 1893. Again from 1908 to 1914 the Department carried on some extensive experimental work on the farm, in the growing of various types and promising strains of corn, cotton, horticultural crops and alfalfa. In 1908 his farm was the largest alfalfa experiment station in the United States and probably in the world. This work was under Elam's supervision, assisted by other members of the family and agricultural experts from Washington.

In religious matters, for a period of over 50 years, he was in the forefront of Christian activity both home and foreign. He was elected as elder in the Presbyterian Church in October, 1878, and continued thus through the remainder of his life. He was the first layman in Kansas to be chosen Moderator of a Presbytery, a position he held again on several occasions later in his life. He also attended several national assemblies and Sunday School

Conventions.

From March, 1903, to September, 1907, he was Sunday School Missionary for the Presbytery of Osborne, which comprised 18 counties in Northwest Kansas. During this period of four and one-half years he traveled by team and by rail about 32,000 miles in religious work, made 2,875 family visits, distributed 123,756 pages of Sunday School literature, made 268 addresses, attended 243 school sessions, 68 conventions and organized 43 schools. He also served for more than 40 years as president, secretary or some other executive officer of the Rooks County Sunday School Association.

In the summer of 1882 Bartholomew became interested in the study of botany and began at once to make a botanical survey of Rooks County, Kansas. In three years he had in his herbarium a specimen of every flowering plant that was known to grow in that region. One day in July of 1885, while cultivating corn, Dr. W. A. Kellerman, then of Kansas State Agricultural College, came across the field to visit him. After a brief conversation, Kellerman stooped to a plant, plucked a leaf, turned it over and on the under side was a well-developed parasitic fungus. With the turning of that leaf came a turning point in Elam's life. It led to international fame as a discoverer, collector and distributor of thousands of forms of fungous plants. He discovered over 480 species new to science. Aside from many thousands of specimens collected in Canada and some in Mexico, he visited and did botanical work in every one of the 48 states. The total number of specimens he collected, beginning with 1887, was about 292,380 and the

number of miles traveled in that work was nearly 133,000. These records placed him in the unique position of having collected more specimens of fungus and over a wider range of territory than any other American collector at the time of his death.

In 1898, he obtained the degree of Master of Science from Kansas State Agricultural College. Again, in 1927, on recommendation of the College of Deans of the State Agricultural College, he was granted the degree of Doctor of Science. He had taken for his Matriculation thesis "The Fungous Flora of Kansas," which later was published as a special College Bulletin.

For a number of years Elam was associated with Professor J. B. Ellis of New Jersey. In December, 1901, on account of failing health, Ellis turned over to him the subscription list of "Ellis and Everhart's Fungi Columbiana," of which he at once became editor and publisher. He continued this work until the spring of 1917, when he discontinued its publication. During that period he issued 36 numbers of the work containing 252,700 labeled specimens of fungus.

In February, 1911, he commenced another publication known as "North American Uredinales," which was designed to make a scientific distribution of all obtainable plant rusts on the North American Continent and adjacent islands. This venture, the only one of its kind in America, was a success from its beginning and found generous favor in the scientific world. It was continued until 1926, with the issuance of 10,000 specimens per annum. The specimens issued in the two publications were distributed to state universities, agricultural and other colleges, botanical

gardens and to a few private subscribers in the United States, Canada and Europe.

In the spring of 1912, Bartholomew built a fireproof laboratory, which was a workshop well equipped with everything necessary in his line. Here were his scientific library and a large collection of specimens. His herbarium, which contained specimens from almost every land under the sun, became one of the richest and most valuable private collections in the United States.

He was the author of many papers and addresses on social and scientific topics. His major publication was a 238-page book, North American Plant Rusts, published in 1928, with a second edition in 1933.

As a worker in the botanical field, Bartholomew was better known for his accomplishments in the scientific institutions of both Europe and America than to his friends and neighbors living near his pleasant country home. He could lay his hand on a decaying log, the dead branches of a tree or shrub, the withering leaves of a plant or a tuft of rusted grass and they were transformed immediately into things of commercial and scientific value. Thus in his passing, Kansas lost one of its most interesting scientific characters.

Any sketch of Elam Bartholomew's life would be incomplete without some further mention of the companion who shared his life and labors. From the days of early pioneer life with its deprivations and many sacrifices, Rachel went forward with him through all the years rearing their children. In spite of those busy years when she was caring for their children, she always found

time to encourage and help him with his work. As the years went by and family cares grew less she gave more and more of her time to aiding him in his educational and scientific work. Many of the long journeys for the collection of specimens were made less tedious by her companionship and willing assistance. Truly it may be said of her that she was not only steadfast in her loyalty but of great assistance to her husband in his work.

In closing, I would like to state that I believe that this man certainly deserves a place in the Agricultural Hall of Fame to be located near Kansas City, Kansas.