# WITH A BRUSH AND MUSLIN BAG

# THE LIFE OF NIELS EBBESEN HANSEN

By Helen Hansen Loen



# WITH A BRUSH AND MUSLIN BAG

#### THE LIFE OF

#### **NIELS EBBESEN HANSEN**

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To my sister Carlene who was with me every step of the way.

# "It took a good many million Englishmen to produce a Shakespeare."

Niels, explaining why he needed to breed thousands of

plants to produce the perfect specimen

"It took a good many million Danes to produce a Hansen!"

Paul Friggins, writer, in tribute to Niels

#### **FOREWORD**

Much has been written about our grandfather, Niels Ebbesen Hansen, and justifiably so. Accounts of his harrowing exploits in the cold regions of Siberia, a rendering of his contributions to the science of plant breeding, and descriptions of the various hardy plants he introduced to the plains states are well documented in many articles and books.

What is missing from these versions of his life is the personal element. Little has been written about his frugal upbringing in Des Moines, Iowa, his dropping out of high school, the struggle to fund his college education, and his early longings for recognition. Most people are unaware of the part George Washington Carver played in Niels' long courtship of Emma Pammel, his first love. Many do not realize the impact that her early tragic death had on his career.

Few biographers know of his speech impediment that he successfully eliminated after long hours of practice. Fewer still mention his bankruptcy in 1925, his alienation from the USDA, or his struggles in retirement with little income. None have mentioned his failing health prior to his death in 1950 which, at the end, left a feeble man too weak to care for himself and unable to recognize members of his beloved family.

This book portrays Niels' personal life as well as his professional career. Information gleaned from the journals he kept from 1879-1886, correspondence between members of his family, personal recollections of his nine grandchildren and recorded reminiscences of his daughter-in-law, have all been utilized in the pursuit of this goal. Faculty papers from the South Dakota State University Archives and personal papers from Kevin Kephart, Director of the Experiment Station at SDSU, regarding Niels and the USDA, were invaluable assets in reporting certain critical aspects of his life.

As I reviewed Niels' personal papers, it became apparent that his story would not be complete without a brief accounting of the life of his father, Andreas Hansen. Niels was deeply devoted to his father who played a major role in forming his character and goals. Therefore, the reader will find references to events in the life of Andreas that impacted Niels' accomplishments.

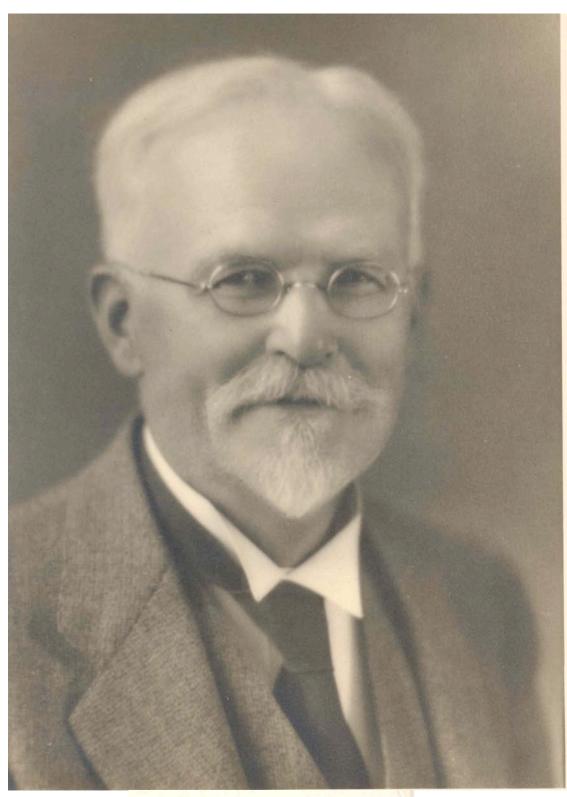
Niels was ever aware of the large extended family he had in Denmark. Rare photographs of some of these relatives, seen on these pages, were carefully preserved by Niels' sister, Kristine, and came down to the family through her grandchildren. Correspondence with Danish relatives, as well as letters written between Niels and his father and sisters, add insight into the lives of the Hansen family.

Niels Ebbesen Hansen continues to be honored. A men's dormitory on the campus of South Dakota State University, Hansen Hall, was opened in 1966 one hundred years after his birth. The dorm is now co-ed, which would have amused Niels and probably outraged his second wife Dora. That same year the N. E. Hansen Research Center, an adjunct to the Horticulture Department, was begun.

A 1992 series of news articles in the Brookings Register chronicled his accomplishments. In 1995 the Niels Hansen Specialty Garden, which features many of his plant introductions, was dedicated in Brookings, South Dakota. In June 2000 The Alumnus magazine recorded the legacy of Niels and the 2001 May-June American Science contained an article that mentioned Niels' work in alfalfa. South Dakota Magazine, January/February 2002, and a recent Farm and Home Research included articles that remarked on Niels' contribution to the new wine industry in the state and enumerated the many hardy grapes he introduced over seventy years ago.

Interest in this man whose life's work occurred nearly a century ago continues to amaze his family. With that interest in mind, I have authored this biography.

Helen Hansen Loen, Granddaughter of Niels Ebbesen Hansen Kalamazoo, Michigan 2002



Niele & Hansen

#### **INTRODUCTION**

#### "Grandpa Hansen"

Friends have asked me, "What was it like to be the granddaughter of a famous person?" My usual reply was that he wasn't a famous person to his grandchildren; he was just "Grandpa Hansen." He was a shining example of what a grandparent should be - kind, gentle, attentive, and encouraging.

Grandchildren recognize the subtle but far-reaching influence he had in their lives. Love of art and music, a wholesome curiosity, an open mind, a passion for learning, and an abiding faith are all part of the legacy that continues to be passed on.

He took great pride in his grandchildren and always recognized their accomplishments. Children who were mentioned in the local paper for some achievement could expect a congratulatory phone call. He was delighted when daughter Eva Gilkerson moved to Brookings, South Dakota, so that all of his progeny were close at hand. He attended his grandchildren's performances with great faithfulness. Ushers at these events always reserved a seat for him as they knew he would be present at the performance.

The children of his son Carl can recall Sunday movie matinees escorted by their grandfather. The walk downtown with his conversation and comments on the world about them were part of the pleasure of his company. These afternoon social occasions always ended at the Fenn's Ice Cream Parlor where he treated the children to a dish of ice cream.

Niels also made a point of escorting these young grandchildren to cultural events on campus, regardless of the weather. He took them to concerts, poetry-readings, plays, or any event that would add to their appreciation of the fine arts.

The grandchildren visited their grandparents' home often. Dora gave embroidery and crocheting lessons to the granddaughters. She had a special place for toys in a small closet under the stairs. She also had a candy dish and dispensed hard candy to the children who had been "good." A special

treat was going up to the attic and "dressing up" in some of the Russian costumes which Niels had brought back. After Dora died, three of Eva's daughters came to live with Niels while they attended school.

Visitors to the home on the corner of Eighth Avenue and Ninth Street, two blocks from campus, can recall the delicious smells of jam and jellies which his dependable second wife, Dora, would prepare from some of Niels' latest fruit introductions. The cavernous basement contained many jars of fruits and vegetables she preserved.

An avid housekeeper, Dora kept the eight-room house immaculate. The exception was the library, which was Niels' domain and usually crowded with books and periodicals stacked in confusion upon the floor and every available chair. Niels enjoyed reading and could peruse books and articles in several languages.

Since Dora would not allow a radio in the house, Niels listened to broadcasts at his son Carl's home, only a block away. Niels also kept up with the news through a large variety of magazines and newspapers, some of them foreign.

The artwork of Niels' father, Andreas, adorned the walls of their home. Andreas, a house decorator and fresco artist for fifty years, created many copies of famous paintings. His descendants in Canada and the United States proudly display these works of art in their homes. Some of the work has been appraised as "museum quality."

Niels appreciated art and always included a trip to an art museum on his trips abroad. Art revealed the beauty of nature in Niels' view and he considered art as "the true history of civilization. All social struggle is portrayed in art, and you not only see it, but you also feel it deeply. There is no propaganda in art."

Niels was a recognizable figure in the town of Brookings where he lived for fifty-five years. Five feet ten inches tall, with a medium build, he sported a Van Dyke beard that he had grown since the turn of the century. Many residents of Brookings can recall a white-haired old gentleman in his later years, shuffling slowly downtown or through the campus grounds on his daily walk. He always wore a cap or hat, which he carelessly put on, sometimes rather askew. Ever the courteous gentleman, he always tipped his hat to the people he met.

His family rarely saw Niels without a tie and vest. However, Canadian cousins, grandchildren of his sister Kristine, can recall him in less formal attire. They remember sitting around the dining room table with Great-Uncle Niels as he straddled a kitchen chair, with his arms resting on the back and his shirtsleeves rolled up. They listened wide-eyed as he recounted tales of his foreign adventures to Kristine and her family.

Others noted his appearance. The Experiment Station bulletin commented, in a tribute to Niels after his death, that they had a hard time choosing a picture of Niels for the cover of their magazine, Farm and Home Research.

"We had two pictures of Dr. N. E. Hansen, and it was quite a problem which one to choose for our cover. We thought the one we did choose was an especially good character study, but the other had an appeal all its own. It showed N. E., as we often saw him here, in his shirtsleeves and vest, his trousers un-pressed and a somewhat battered hat upon his head. He was standing out among his fruit trees, a notebook and pencil held in one hand, the other reaching for a blossoming branch."

Niels never learned to drive a car because he could "think" better on his feet. When he was in the depth of some mental exercise, the family could observe him walking around and around the dining room table with his hands behind his back, sometimes listening to the Victrola that played his record collection of famous operas.

Although he praised his early gymnastic training, Niels was not a sports fan. One of his favorite games was chess, whose intricacies and strategies he taught to his children and grandchildren.

He also liked the movies and rarely missed seeing the latest offerings of the theaters downtown, the Fad and The State. He had a preferred seat in the theaters which the ushers faithfully set aside for him, sometimes asking people to move who were in "Professor Hansen's seat."

A story about Niels was related by Jim Dornbush who sat behind "Professor Hansen" as they were watching a show that found the hero without water and alone in a desert. As the man struggled through the sand, obviously dying from thirst, Niels kept muttering intensely, "Cut the cactus! Cut the cactus!" Not surprisingly, the hero finally found the cactus that contained water and saved his life.

In spite of his reputation as a temperance man, on a hot summer day Niels would slip into the back door of Logue's Corner, a news stand which had a small bar at the back, and enjoy a glass of cold beer.

Niels always felt a special tie to Iowa, his home state, which had molded his early years. He valued the bond he had with the folk school in Elk Horn where his sisters worked. He and his family had friendships within the Danish colony that lived nearby.

He also had a close attachment to the faculty at Iowa Agricultural College in Ames (now Iowa State University) where he received his higher education. He enjoyed a family relationship with his brother-in-law Louis Pammel, head of the Botany Department. Niels credited Professor J. L. Budd with starting him on the path of fruit breeding and co-authored a book with him while still in college.

James "Tama" Wilson, Head of the Experiment Station at Ames who later became Secretary of Agriculture, was a key player in Niels' appointment as the first plant explorer for the United States. Ames botany professor Dr. Charles Bessey, for whom the western sand cherry, Prunus Besseyi, was named, also influenced Niels' future work. It was with this western sand cherry that Niels devoted so many years of experimentation to finally produce the Hansen bush cherry. Bessey praised Niels as the man "who tamed my western sand cherry."

Niels was always interested in state fairs. Even as a young boy he attended the exhibitions at the lowa State Fair held in his hometown of Des Moines. He treasured a map of lowa which he drew for the 1879 state fair and which earned him second place and a premium of one dollar.

When he came to South Dakota his interest in state fairs expanded and year after year he nearly filled the Horticultural

Hall with a vast array of fruits, flowers and agricultural products. One year he displayed over 500 gladioli. He enjoyed talking to the farmers about their problems. One time, he showed his impish sense of humor and set up a small pond purporting to contain "invisible fish." Many an onlooker spent some time trying to see them.

Throughout his lifetime, he gave lectures on anything from Russian agriculture to the propagation of roses. He could easily fill a hall because his speeches, given in a soft voice that retained a slight Danish accent, were amusing and insightful.

He was a welcome guest speaker at clubs around town to tell about his trips for which he used lantern slides to show where he had been. He could stray from his major field and render opinions on such topics as "The Sublimation of the Libido" or the atom bomb.

He addressed the state legislature on many occasions, always pleading for more research funds.

Early on in his life Niels understood the value of publicity. He would occasionally send a news item about his doings to the "Dannevirke", a Danish newspaper. In his journal he mentioned several times that the local paper had noted his return to Des Moines. He sought out news editors wherever he stopped.

His daughter-in-law, Gladys Hansen, claimed that as soon as he got off a train he would walk into the local newspaper office to announce his arrival. Detractors have labeled these actions as ego and self-promotion, which may be a valid criticism; however, he was also promoting his college and horticulture.

Reporters enjoyed interviewing the man because he had a delightful sense of humor and a self-deprecating manner. After his death, The Brookings Register observed in an editorial: "Those who have commented upon his traits of character and temperament have all missed one thing, and that was his sense of humor. He could illuminate his tale with sly and subtle humor which made his discussion of even highly technical matters interesting to the untrained."

While he seemed to court publicity, he tried to keep a measure of modesty about his accomplishments. He recalled that his father once told him, "Niels, you come from a steadfast tribe who can fight in great battles, and later tell all about it, while keeping both hands in his pocket."

Niels had an easygoing demeanor. He told of his experiences in Siberia where he was apparently the calmest member of the party. One of his maxims was, "Increase the rhinocerosity of the epidermis." This adage probably helped him when criticism of his work arose.

He was realistic about human relationships and would sometimes quote an old Danish proverb: "Act as though your friend may someday become your enemy, and every enemy may someday become your friend."

In his many years of experimental work, Niels displayed an enormous amount of patience. Fruit breeding required, first of all, a delicate touch when the blossoms were pollinated by hand. Then came the wait for the trees to bear fruit. Seeds were extracted and then planted, nurtured, and watched for several years until they matured enough to become fruit-bearing trees.

Only after several years could the results of the cross-pollination could be assessed. Often the results were not suitable. Niels once commented they were like the "sawdust of a carpenter's workshop." The discarded plants were put into a bonfire, where Niels hoped, "New creations will spring Phoenix-like out of the ashes of the old." The whole process continued year after year. He once remarked that he couldn't finish his work in a hundred years, but that he hoped others would carry on.

A man of science, Niels was also a man of quiet Christian faith. He once told a group of students at a Chapel meeting, "I felt I was doing the Lord's work." He professed the Lutheran faith, but attended the Episcopalian church with his two wives. He told his biographer about the influence of the Danish spiritual leader, Bishop Nicolai Grundtvig. Niels declared, "His message brought me upon the sunlit heights!" Two lines from Niels' final poem, "The Shadow Lengthens," proclaimed his life-long commitment to a Christian faith when he penned:

"He gave me talents to use along the way;

I have tried to use them in His service every day."

#### **ACKNOWLEDGMENTS**

Any book that seeks to present the facts of a historical person relies heavily on research. I wish to thank the following people for their generous help in finding material that gave me a better understanding of the full extent of Niels Hansen's life work.

Kevin Kephart, Director of the Agricultural Experiment Station at South Dakota State University. His insights were invaluable, particularly the relationship of Niels to the USDA. Becky Jordan, Reference Specialist of the Iowa State University Library. Her quick responses to my inquiries concerning Niels' connection to that institution filled in the Iowa years. Verlyss Jacobson, Editor of Pasque Petals, and Secretary of the SD State Poetry Society. She found the poetry Hansen had contributed to the magazine over the years. David Roden, who now lives in the Niels Hansen home, provided information regarding the early years of the property. Dawn Stephens with The South Dakota State Heritage Museum researched the photographs of Niels' overseas trips. The staff at the archives of the H. M. Briggs library were always helpful.

On a more personal note, I wish to thank my family for their contributions. My husband Orlin who was the "outsider looking in", and who always cheered me on, gave thoughtful perspective to the various stages of writing. My son Larry, for sharing his research on Niels' work. The "Gilkerson Cousins": David Gilkerson, Carol Peden, and Laura Searls, who were always encouraging and whose memories of our grandfather were invaluable. Tove Andersen, mother-in-law of my son Mark, who translated the many family letters written between Andreas and his Danish family. The contents of these letters provided an insight into the minds and thoughts of this remarkable family.

I have already dedicated this book to my sister Carlene, but the few words do not do justice to the contributions she made as advisor, consultant, and editor-in-chief of the whole book.

#### **Helen Loen**

#### **PROLOGUE**

"A big art I don't suppose it is, and in and of itself
it is not so big (a fine brush and small muslin bags)"
Niels Hansen

Niels Ebbesen Hansen had a clear vision of the direction his life would take by the time he was twenty-one. He confided his dream in a letter to his father.

... I think, dear Father, that it will be one of those things I will concentrate on a lot in the future. That is, cross breeding for fruit bushes and trees and also flowers. As you wrote, improvement by bringing out new kinds is a big art.

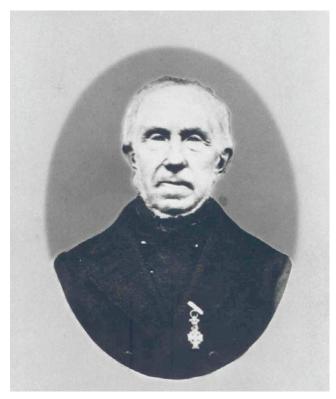
A big art I don't suppose it is, and in and of itself it is not so big (a fine brush and small muslin bags), but to choose the mother and father plants as you could call them, and other such things require both scientific training and practical experience.

Thus Niels explained what would become his life's work. He used the brush and bags to gather pollen from selected plants, the first step in cross-pollination. A small act, but one destined to change the face of agriculture on the plains.

His work reflected a life-long goal: to make a difference in his chosen field. This purpose runs like a golden thread through the fabric of his life. From journal entries he made as a teenager and in letters to his father throughout the years, Niels wrote of his aspirations. He sought recognition not only for his own work, but also for the endorsement of the scientific approach to farming. He confided to his brother-in-law, Louis Pammel, "I am working for a national reputation now and will have it, too, if my new fruits turn out as I hope they will."

This admirable ambition led to a broader purpose — to improve the lot of the hard-working farmer on the plains. He labored long and arduously in order to create new plants for the dry, arid conditions of the land in the Northwest, a region he fondly referred to as "my American Siberia."

At the end of his life, in his last public appearance, Niels alluded to this life long endeavor. At a recognition ceremony on the campus of South Dakota State College in 1949, the frail eighty-three year old Niels addressed the crowd with a simple thank you and added in his soft Danish accent, "The idea is to leave the land in a more profitable condition than you have found it."



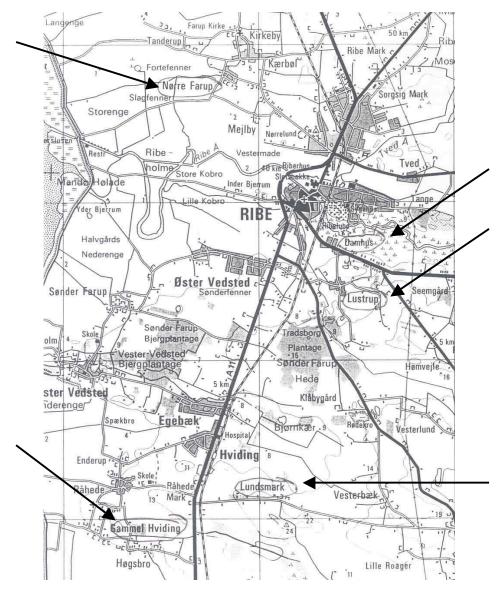
Niels Hansen, paternal grandfather



Christine Sorensen Midtgård,



Peder Sorensen Midtgård,



Area map of Ribenmark



Damhus, childhood home of Niels. built by his father



Lustrupholm, birthplace of Niels



Andreas Niels Hansen, father of Niels



Bodil Marie Midtgård Hansen



Katrina Petersen Hansen, stepmother of Niels



Niels with sisters Helene and Kristine.

Niels with stepmother Katrine and Andreas. iust prior to



#### THE EARLY YEARS

#### 1866-1873

"I waited some time so I could learn a little English"

#### **Niels**

Niels was always conscious of his Danish origins as illustrated in the following autobiographical sketch written when he was thirteen. He described his early life in this 1879 journal entry:

A Brief Journal of My Life before I Commenced this Journal

I was born in Lustrupholm, Denmark. Lustrupholm is a small farm so-called, near the town or village of the same name, [Lustrup] near Ribe, and here I was born in a large farm house, which is now changed into a high school, January 6, 1866. When I was about one year old my father built a house [Damhus] near Ribe where we lived three years. While I was there, my beloved mother, Bodil Marie Hansen (her maiden name was Midtgård) died. She was born March 22, 1833, and was married to my father, Andreas Hansen, October 15, 1857 in Lundsmark. She died November 18, 1867, so that I was a little more than 1 1/2 years old at the time of my mother's death.

Two years afterwards, father married my present mother, Ellen Katrine Marie Hansen (maiden name Petersen) May 1, 1869 in the large church or cathedral in Ribe. She has been a good mother to my two sisters and me.

We went to Copenhagen July 16, 1869. We were there two years and then went to Århus. Father went to America a year before we did. He sailed July 5, 1872 and arrived at New York July 26, 1872. He then sent for us and we left Copenhagen August 1, 1873 and arrived at New York August 21, 1873. Father met us at Castle Garden and we lived 1 1/4 years at 277 Monroe near the corner of Monroe and Jackson St. Here I first began school. I waited some time so that I could learn a little English.

### The Birthplace of Niels

Lustrupholm, Niels' birthplace, is a large two story stucco home which was once the residence of the Bishop of the Ribe Cathedral and through the years was used for other purposes. Located about a mile southeast of Ribe near a small cluster of farms called Lustrup, it is currently undergoing restoration to a 1740 Manor House and will be part of a tourist attraction called the Viking Center.

Niels was proud of his roots in Ribe, Denmark. The ancient town, the oldest town in Denmark, was the site of an early Viking settlement. Founded in the early 700's on the banks of a river that flowed to the North Sea, Ribe was at first a farming community. Its river provided trade with sea-going countries and eventually led to prosperity, as Ribe became a valuable asset to the kings of Denmark who could tax the growing economy.

Ribe became the most important medieval North Sea port of the kingdom and Denmark's gateway to Western Europe. As the town grew, the need for a cathedral became imperative. In the mid-1100's construction of a cathedral, Dom Kirke was begun. The cathedral underwent many architectural changes and was finally finished about 100 years later. Niels and his sisters were baptized in the ancient nave from a bronze baptismal font dating back to 1450. [Note: The Hansen family used a small baptismal bowl, fashioned in silver, which they placed in the large font. The bowl is now in the possession of Paul Hansen, grandson of Niels.]

Today the Dom Kirke can be seen for miles around the flat land surrounding Ribe. The town, with its cobblestone streets and rare homes built in the late 1600's, has become a Danish treasure and a tourist mecca. Preservation of early architecture and narrow streets has brought to the modern traveler a feeling for what an old medieval town must have looked like.

### Niels' Family in Denmark

The Danish family was relatively affluent. Niels' grandfather, Niels Hansen, had a large farm in North Farup in South Jylland. Conforming to the custom of Scandinavian naming practices, Niels was named after his paternal grandfather. His second name came from a 14<sup>th</sup> century Danish hero, Niels Ebbesen.

This venerable grandfather was a bailiff for the King and received the highest civilian award, the Dannebrog (Order of the Flag), for his services. He married four times and had 13 children, so Niels claimed a large extended family of aunts and uncles in Denmark with whom he kept in contact even after emigrating. One of Niels' cousins, Søren Brorsen, was the Defense Minister in the King's Cabinet during World War II while Denmark was under Nazi occupation.

Niels' father, Andreas, became a licensed painter in Denmark after a six-year apprenticeship followed by a three-year stint in the army during the First Slesvig-Holstein War with Prussia. He served with General Olav Ryg, was wounded, and received a medal from the King. Andreas returned to North Farup and is listed in the 1850 census as a farmer with four servants. After studying art in Italy, France, Switzerland and Germany, he began his career as a painter in Tønder. In 1857 He married Bodil Midtgård who lived in the area.

Andreas and his wife remained in South Jylland for two years before moving in 1859 to a farm house, Lustropholm, near Ribe. The couple moved to their new home with a daughter, Kristine Marie, who had been born January 22, 1859, in Lundsmark. She died at nine months of age on November 13, 1859. The following year they had a stillborn son born on May 26, 1860. After these dual tragedies, they had three more children. Kristine Hedevig was born May 3, 1861, and, following tradition, was named after

her deceased sister. Helene was born on Septem- ber 10, 1863, and Niels on January 4, 1866.

After a disastrous Second Slesvig-Holstein War in 1864 that Prussia won, much of southern Jylland (the Danish peninsula) was lost to the victors. The Prussian border was placed about two miles from Lustrupholm. The close proximity of the hated enemy may have caused Andreas to move his family into Ribe which had been a thriving commercial center, but which was now undergoing financial stress due to the uncertainty of the times.

Andreas probably found it difficult to find work as a house decorator because the merchants were losing business and not inclined to spend money on their residences or establishments. Nevertheless, in 1867 Andreas built a small home, called Damhus (house on the pond) within walking distance of downtown Ribe.

The family lived there less than a year when Bodil died in November of 1867. Niels was not quite two years old. The only clue to the cause of her death comes from a letter Niels wrote to his father when he took out life insurance.

My physical exam was very satisfactory although I could not tell exactly how long my grandparents lived. The only thing was that my mother's life was so short. I said the reason was sickness of the lungs which I suppose was consumption. It was written down as "lung trouble".

His mother was buried in the churchyard of the Dom Kirke. Grandmother Christine Midtgård came from Lundsmark, now under Prussian occupation, to care for the small children.

After two years, Andreas married Katrine Petersen, moved to Copenhagen and then to Århus. By 1872 he had decided to emigrate. The impetus to leave Denmark most likely came from the economic pressures Andreas felt, but another factor, according to a note by Niels, was a cousin of his father, Hans Gustav Lillienskiold, who urged Andreas to come to America.

Hans had emigrated earlier and established a medical practice in New York City. He no doubt observed the enormous mansions being built by millionaires on Park and Fifth Avenues that were being embellished with the finest frescos and decorating. Here Andreas could apply his craftsmanship.





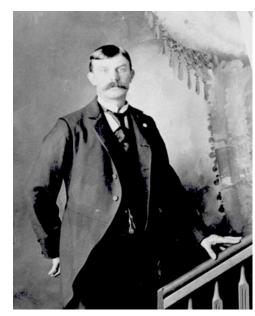
Andreas, with medal from the King of Denmark



Kristine Hansen and Jens Rasmussen wedding picture,



Helene Hansen, 1882, Age 19



Louis Olsen, husband of

#### **NIELS COMES TO AMERICA**

#### 1873-1882

"I am offering my last cent for your education."

#### **Andreas Hansen**

Consequently Andreas moved his wife and son to America. The two daughters, Kristine and Helene, remained in Denmark in a boarding school where the family kept a watchful eye on the two girls. (Søren) Knudsen, Bodil's youngest brother, who was executor of Bodil's estate, felt responsible for the safekeeping of Andreas' children while they lived in Denmark.

Why Andreas did not bring his daughters with him to America is an open question. Perhaps he did not have enough money or was uncertain of his ability to get work in a new country and to pro-vide for a family of five.

His choice of a boarding school as opposed to leaving them in the care of his in-laws can be explained by the fact that Bodil's family was living under Prussian occupation. However, the family in Denmark kept a watchful eye on the two girls. Letters written by the two girls indicte they were in contact with their aunts and uncles.

Andreas sailed for America on 5 Jul 1872, and arrived three weeks later in New York. Unfortunately he arrived in New York just as a depression hit the city, and, although he got a job decorating the mansion of Cornelius Vanderbilt, apparently he obtained no other commissions and he moved to Newark within a year.

# The Family in Des Moines

After helping with murals for the Centennial Exhibition in Philadelphia in 1876, he moved again, this time to Des Moines, lowa. Perhaps he heard about the new capitol that was being built which required the ornamentation of many artisans. Indeed, he was commissioned to decorate three offices and helped with the paintings on the dome. One ceiling he frescoed in the Secretary of State's personal office survived a fire and remains to this day.

Niels was proud of his father's profession and was influenced by the sensitive nature of his artistic parent. He once commented,

In my early boyhood days at my father's side in Denmark and later in America it was a delight to see him prepare a palette of oil colors for his day's work at the easel or at an altar painting or on a mural decoration. The colors blended little by little into a finished painting. I dreamed of becoming an artist, but fate willed otherwise.

But I learned that sensitiveness to color was necessary to see the beautiful in nature—-the lilies of the field and flowers in the meadow and on mountain top, the glory of the rainbow and the sunset.

The city of Des Moines was a far cry from the ancient Viking village near the birthplace of Niels. Only twenty-five years old, Des Moines was originally a fort that had grown into a fair sized town of about 20,000 by 1876. The name referred to the Indian mounds found near the river.

The state capital for ten years when Andreas and his family arrived, Des Moines was a growing city with a frontier attitude. Streets were unpaved, gas lighting prevailed, and most commerce was conducted on the streets near the State Capitol building. Niels and his family lived in rooms on East Court Street, a short distance down the hill from the Capitol. This proximity to the state government may have influenced his lifelong interest in politics.

After his work on the Capitol building concluded, Andreas continued his occupation as a freelance house decorator and fresco artist. Unable to speak the language of his adopted country fluently, Andreas nevertheless found work decorating

the homes and businesses of the wealthy or painting commissioned works of art for churches. He was able to provide for his family, but it was not a steady source of income. Thus Niels grew up in humble circumstances with financial problems always looming.

Niels had an ordinary childhood. He played marbles and iceskated with friends with whom he played checkers and chess. They sometimes took long walks in the fields around Des Moines. Niels made a collection of moths and butterflies. The lowa State Library, within walking distance of his home, was a place where he liked to spend time. He thoroughly enjoyed the challenges in a gymnastics group. He later described his activities:

In several years in an indoor gymnasium I was literally "the flying young man on the flying trapeze who flies through the air with the greatest of ease." This was in a German Turnverein in Des Moines Iowa. In pyramid building, I never got above the ground floor. But the training was thorough.

In my freshman year at College, I could "chin" on the horizontal bar 21 times; I also took contracts to saw wood by the cord. I am thankful for this thorough Turnverein training.

His greatest achievements as a youth were in the academic field. When he came to Des Moines he was ten years old. He had been attending school for two years but was probably already in the third or fourth grade. Three years later he was in the eighth grade. He carefully recorded his grades for some of these years, and he nearly always exceeded 90% in all subject areas.

Niels was able to progress so quickly due to a unique system of advancement. Students were promoted to the next grade according to examinations held at intervals during the year. As a result of this system, Niels stayed in one grade only seven days! In fact, he finished eight grades in five years. Thus he was able to begin high school with his peer group.

### **Niels' Stepmother Dies**

In June of 1881 Niels' sister Helene, age eighteen, emigrated and lived for a time with the family. Niels had not seen her for nearly

ten years. She found work as a servant girl, but may have also helped with her ailing stepmother.

A passage from a letter, written by an old family friend six months before Katrine died, indicated that she was suffering from some ailment:

How are you doing in all your trials and tribulations? Is your wife better now? We hope! When we hope it is always for something good. I can understand how hard it must be for you, old friend, to see the woman, who for so many years has stood by your side in sorrow and happiness, now going downhill day by day.

Yes, Hansen, many things happen in this world which is not by our choice. God's ways are not our ways..... I hope these few words will enter a house where strength has returned to the one who suffers and who is loved there, yes, who is not alone there.

#### **Carl Jensen**

Katrine Petersen Hansen died April 30, 1882, and was buried in Woodland Cemetery in Des Moines. Her site is recorded but no gravestone exists. Katrine received a small, one paragraph obituary notice, common to the prose of that day, in the Des Moines Register:

The death of Mrs. Katrine Hansen, on Sunday last, came as a deep grief to her family. She was the wife of Andrew Hansen, the well-known fresco artist, and leaves two children to mourn her loss. One of them is a daughter eighteen years old [Helene] and the other a son two years younger, Master Neils, the bright and intelligent boy who has been in the office of the Secretary of State the past year. The family removed to this country from Denmark in 1873 and have resided here ever since. She was a loving mother and wife and her death is the taking off of an estimable lady.

Her death was a serious blow to Niels, then sixteen. A photograph of Katrine bears this handwritten note by Niels: "The only mother I remember." Katrine had been responsible

for Niels' religious upbringing. Many entries in Niels' early journals refer to his attending Lutheran church services with his stepmother. Andreas, although a pious man, did not attend church regularly.

On the first anniversary of her death the spiritual tie Niels had with his stepmother is revealed in these words he wrote in his journal:

Just one year ago today my mother's spirit ascended on high to her Maker. I pray that I may so live that when God calls me, I will be found worthy to join her above.

Niels received a letter of comfort from a former teacher, Mary Bonsall, who lived in Newark, New Jersey. She had been his teacher when he attended Lafayette Street Public Grammar School in that city and had kept in contact with her prized student. She wrote to Niels after the death of his mother:

I am sure, dear Neils, your dear mother finds all the glories of Heaven and the presence of her Savior ample reward for the bearing of the weakness and trials of this life with patience and trust.

# **Niels Drops Out of High School**

Most likely Niels remembered his stepmother's joy when he became confirmed. Confirmation in those days was considered a rite of passage into adulthood. Children were expected to make their own way after this event. Niels was no exception. At age fifteen he dropped out of high school at the beginning of his junior year to earn money for day-to-day living. It was an important event in his life as his journal reveals:

Wednesday, Oct 12, 1881

Hallelujah! I have just been appointed to a splendid place in the office of Secretary of State Hull. I just had an interview with Sec. Hull at about 4:30 p.m. City Time. I am writing this at 4:37.

Miss Hamilton, my High School Teacher, requested me to stay this p.m. after school, and she told me that the position was offered me, and that I was to come to Sec. Hull's office after school. I immediately went there, and Sec. Hull (God bless him!) told me that I could commence my duties as Messenger right away.

So I am to come tomorrow morning. God bless Miss Hamilton, Mr. Fleming, Sec. Hull and all who have been instrumental in getting me this position. My wages at first will be \$5 a week, and perhaps \$6 a week if I give good satisfaction.

In addition to the job at the Capitol, Niels procured a job with a local weekly magazine, The Mail Car, by writing items of interest. The editor was impressed with his reporting and offered him a job as the east-side representative. He received \$1 a week for news articles and a 25% commission on any ads he brought in. He was highly pleased with his literary efforts and recorded in his journal: "My first recompense for anything in the reporting line I have received."

But sixteen year old Niels had a dream. He wanted to go to college. In spite of the fact that he had only a tenth grade education, by 1882 he was writing to the various colleges and universities for catalogues to find out what subjects he needed to study in order to succeed.

He decided to finish his high school education on his own. He paid for private lessons in Latin, German, and elocution, as well as algebra. He was secretary of the Young Men's Society that met to study geometry and review arithmetic. He bought books that helped in his self-study program. This flurry of academic activity caused him to quit his Mail Car job, even though acquiring money for college was a priority.

After a year of working and studying, he noted his efforts in his journal in 1882:

During the past year I have bought over \$25 worth of books, have some nice clothing, have loaned and given father quite a sum of money and would have been quite a good deal ahead but the sickness and death of my mother prevented me from doing much towards saving for school. But I have two years yet to save and if father secures steady work on the new Capitol, I will be able to "lay by" for school quite a

snug little sum every month. God grant that I will be enabled to do so.

#### Niels' Inheritance

Niels had one more source of finances--the inheritance from his mother's estate in Denmark. The laws of inheritance in Denmark decreed that at a mother's death, she was considered a joint owner in whatever property had been accumulated during the marriage. This property was to be distributed to her heirs as part of her estate.

Thus, Bodil's children inherited half of Damhus, the home that Andreas had built, plus any other assets he and Bodil had garnered. Under the law, Andreas could not remarry until the administration of Bodil's part of the estate was completed.

Knudsen Midtgård, Bodil's brother, was appointed executor. The children's shares of the estate were put in a bank, probably the bank in Ribe where their father's half brother, Uncle Mads Hansen, was a director.

Since Kristine and Helene had received their inheritance at age eighteen, Niels had hopes that he would soon get his share. This money would assure him of a year at college.

Andreas heartily endorsed his son's ambition to attend college. He pledged in one letter, "As long as I have a penny, you will have money too. I am offering my last cent for your education."

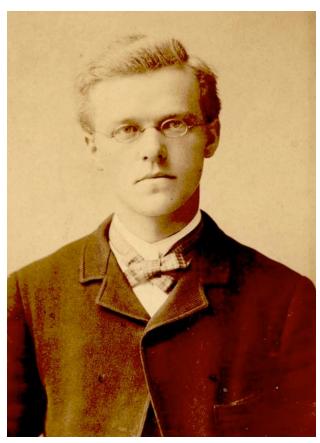
Niels was never far from his immigrant father who greatly influenced Niels' philosophy of life and his dreams of greatness. Together they planned his future. He recorded in his journal of December 1882,

I had a long talk with father yesterday, with the following result. If father continues to work in the new Capitol at frescoing, then I will enter Ames College in the beginning of March 1882. [He meant 1883] That will be over a year and a half sooner than I had my hopes of entering school."

His employer, Colonel Hull tried to talk Niels out of leaving. Niels noted in his journal:

Yesterday Mr. Hull asked me if I did not think that I would be as well off to stay a year longer out of college and study and then enter in the Sophomore class. Mr. Hull very kindly offered to give me enough extra out of his clerk's fund to make my pay about \$400 for the year. He said he did not like to take his chances on getting a new boy.

I talked it over with father last evening and he thought, as I did, not to wait another year, but go right ahead and enter next month. I could not very well study enough here in Des Moines outside of office hours to enable me to enter the Sophomore class next year if I stayed in Mr. Hull's office until that time. Besides, I think that the country air on the College farm will do me good.



Niels' graduation 1887



Niels in uniform Iowa Agricultural College, 1883



Niels, Helene, Kristine 1884

### IOWA AGRICULTURAL COLLEGE

### 1883-1887

"You have chosen a wonderful road for your life, God's great creation."

#### **Andreas Hansen**

## 1883—Freshman Year

At last all the effort of saving money and independent study came to fruition. After reviewing the results from an examination of Niels by a local educator, Ames sent Niels an admission card. He could enter Iowa Agricultural School when the new term began in March 1883. In those days college ran for nine months from March through the following November. Students could work on the college farm during the summer, a stratagem Niels used to earn money.

The first order of business before Niels left for Ames was to purchase eyeglasses. His other supplies included a cot on which he chose to sleep rather than the bedding provided by the college which he learned contained bedbugs. Tuition was three to four dollars per semester; room and board cost three dollars per week. The cost of an entire year was about \$150.

lowa Agricultural College was founded in 1869 with 173 students and nine faculty members. When Niels attended the college fourteen years later, the college had grown to 315 students and 21 faculty. He lived in Main Hall, the main building on campus, which had dormitory rooms on the second and third floors, with classrooms and laboratories on the first floor.

Niels' accommodations were spartan and, in the winter, cold. It was impossible to heat Main Hall above 65 degrees which no

doubt was one of the reasons the school closed from November to March.

Student rooms, shared by two students, were furnished with two straight-backed chairs, a study table, a wardrobe, a washbowl and pitcher, and a wastebasket. After nightfall candles were issued to the students, as the gaslight did not provide good lighting. Evening hours were restricted by signal bells, one at seven for study, and at ten when the lights were extinguished and everyone had to retire.

Meal times were as strictly enforced. Five minutes after the ringing of the bells for meals, the dining room doors were closed, and a student who arrived late did not eat. Slippers were required in the dining room and students were fined ten cents if they did not eat everything on their plate.

Dating was strictly prohibited, but with approval of the President and Preceptress, a couple could attend a college function together. Literary societies, to which both sexes belonged, flourished.

Niels joined the Philomathean Society that was a debate and exclamatory club. He was elected Sergeant at Arms. Members of the societies received an extra bonus regarding the Friday night curfew. They were allowed an extra half-hour after the mandatory bedtime of 10:00 p.m.

Some students were members of "secret societies" which were supported by the faculty and president but opposed by many students. At one time, half of the student body signed petitions to expel the societies. When the President remained adamant, the students continued to protest.

As a freshman Niels became involved with this long-standing hostility when his class voted for a constitution that forbade any fraternal members from holding office. Niels stated in his journal, "I am opposed to secret societies in any school."

Military instruction and manual labor were required of each student, male or female. Students were obligated to work two to three hours a day for as little as ten cents per hour. Much of the early campus was constructed and landscaped by student labor.

In spite of the twenty-eight rules that were strictly enforced by a student council and the faculty, seventeen-year-old Niels flourished during his freshman year and he thoroughly enjoyed his academic studies. He wrote in his journal:

This year's work has been a great benefit to me in manifold ways. It has woke me up mentally, so to speak, and has opened many grand fields of knowledge to me, through which I hope to be able to wander three more years and pluck many a beautiful and useful flower.

Unfortunately, the year was one of financial distress for Niels, as he noted in his journal in October with one month to go until the end of the term:

My cash capital besides my \$10 deposit now amounts to zero. This term's experience will teach me a lesson of rigid economy during next winter. My wardrobe sadly needs renewal.

Within a week his father sent a money order for \$10 and Niels purchased a pair of trousers. He also got a job as a janitor on campus, for which he would work eighteen hours per week and receive ten cents an hour, the usual rate for student help. The \$1.80 per week was a gratefully received by Niels. He commented in his journal: "This will help get me through the term."

Niels observed in his journal that his father Andreas had finished the fresco work at the State Capitol, including the Lieutenant Governor's office and the Speaker's room and was now seeking house decorating work in the area. His sister Kristine, living in Denmark, was engaged to a young man in the Danish military. Sister Helene worked as a servant in Des Moines and attended a winter term at the folkehøjskole in Elk Horn.

# 1884—Niels Drops Out of College

When school ended in November of 1883 Niels and Andreas faced the fact that there was no money for another year of college, and Niels must find a job. On New Year's Eve, Niels commented in his journal: The Old Year is fast fading away in the obscurity of the Past to join the great multitude of bygone years. It has been the year in which I have begun to acquire a higher education and I have enjoyed it very much. O that I had a fortune large enough to enable me to indulge in the pleasure of acquiring a <u>liberal</u> and <u>thorough</u> education without the worry and anxiety resulting from a painful lack of funds!

On the following day, Niels continued in this philosophical mood:

Another year has begun his reign--may he prove a mild monarch. A new chapter has begun in our life history--God only knows what the record will be! I will do my best to make my life record acceptable to Him who ruleth all things.

### He outlined his plans for the year:

My plans for the New Year are about as follows: If I can secure a good position in the Capitol for the whole year, I will stay out of school this year and not begin till the Spring term of 1885.

By doing this, I will be enabled to help Father to build a house on the homestead which he contemplates taking out soon, and also to save enough to take me through one year in college. (Andreas filed for two claims in January in Sully County near Harrold, South Dakota.)

During the year I will pursue as well as I can, the study of German, Botany, Horticulture and Forestry, so as to come near to a 4 in the last three when I go back to college.

A few days later, on his eighteenth birthday, Niels wrote:

Three years more and I am a voter, I hope. My Des Moines school days are past, I think, but three years and perhaps four remain of college life. Then I begin the great school of practical life from which an obituary notice is the only graduating diploma.

Niels found work in February. His old friend, Secretary of State John Hull, re-hired Niels as a messenger for \$7.00 a week. He listed his duties in his journal:

Have been steadily working in the Secretary of State's office. I attend to all the sending away of Notarial Commissions and the making out and sending away of duplicates thereof. Also I deposit checks for high amounts in four banks for the Treasurer and also have helped in the stationery department and to compare proof and otherwise help on the getting out of the "Criminal Returns" report.

As before, Niels continued his self-studies and paid for German lessons with a private tutor twice a week. He also read horticulture and botany books to prepare himself for college the following year.

In the summer of 1884, Niels was at long last reunited with his oldest sister. They had been separated for over fifteen years since shortly after their mother's death. Kristine, 25, arrived in June and found work immediately as a servant girl. It is unknown what happened to her engagement. Her goal was to teach the children of immigrant Danish farmers who lived in the area. Helene, five months pregnant, married Louis Olsen in December and lived in Des Moines. Now, Niels' family was complete.

# 1885—Niels Goes Back to College

Welcome news came from Denmark about a month before Niels was to leave for his sophomore year at Ames. Uncle Knudsen Midtgård, brother of his mother, assured Niels he would receive his inheritance from Bodil's estate. The legacy came to about \$150, enough for a full year of study. In February of 1885 nineteen year old Niels exclaimed:

Tomorrow I leave for Ames--Glory Hallelujah! And with God's help will succeed in my studies and work. Excelsior!!

When Niels returned to the campus he found some changes. Electricity had been installed and the mandatory student labor had been abolished a year earlier. Military Science was still

required and Niels had to buy a uniform. He described his outfit in his journal, "The brass buttons and broad blue stripe make the suit look rather war-like." He explained in a letter to his father:

All the first and second year students had to order new uniforms and to take part in military exercises, even I. The price was \$15.00 but it is of good quality so I can wear it this summer instead of the black outfit.

In April Niels became an uncle when Helene had a son whom she named after her father, Andreas. At the time, Andreas was working as a house decorator in the western lowa area.

## Danish Folkehøjskole

Between his sophomore and junior years, Niels earned extra money by teaching at the Danish Folkehøjskole (folk high school) in Elk Horn during the brief winter break when classes were not held. Students attending lowa Agricultural School commonly used the time between terms to earn money for the next session.

The Danish Folkehøjskole in Elk Horn played a large part in the lives of Niels' family. His two sisters worked there; and Pastor Kristian Anker who directed the school, officiated at the marriage of Kristine and Jens Rasmussen.

The Elk Horn "high school," founded in 1878, was modeled on the folkehøjskole that many of the Danish emigrants had attended in their native land. Like its counterpart in Denmark, the Elk Horn folk school was determined to preserve the Danish culture and open the minds of the pupils to new ideas.

This institution was not a high school in the academic sense. It was more like a boarding school, attended by the sons and daughters of farmers, and housed the students for a short period of time, usually during the winter months. The purpose was to provide further education for the children of farmers in a residential environment that nurtured a love for life and learning in a Christian context.

Lectures and discussions were held on a variety of subjects, such as the Bible, Danish history and Danish literature as well as many practical subjects including agriculture. There were no examinations or fixed curricula. The students did not receive grades or degrees. In Elk Horn, unlike Denmark, the teaching of English to the newcomers was an important task. Evening lectures on general topics were open to everyone and many of the local farmers attended.

The folk high school at Elk Horn continued until the early 1920's. Its narrow focus on Danish culture and language preservation was at odds with the desire of second and third generation Danes to assimilate into American life. In addition, the short-term curriculum without tests, grades and diplomas did not fit the prevailing American model of higher education. The school remained an important cultural center for the community for a while, but without support from an interested student body, it eventually withered and died.

Niels enjoyed his stay at the school. He noted in his journal:

Am now at the Danish High School in Elk Horn, Shelby County, Iowa. It is about 16 miles north of Atlantic. I teach English two hours a day and give one lecture weekly on Horticulture, then I attend about 18 lectures a week on various topics, chiefly historical and take daily instruction in Danish grammar. Like it very well so far.

I take notes on all the lectures that I hear except U. S. History, physics and geography, each once a week. I am very glad that I am here this winter. It is strengthening me in religious faith and is giving me a good general idea of history, especially of universal, ecclesiastical, Denmark and Bible history, also mythology (Northern) and literature of Denmark. There are about 27 students here at present.

I am very glad that I get a little experience in giving lectures. I gave one on General Botany, then several on grapes, small fruits, apples and apple orchard, apples-budding and grafting- apples, cherries, plums, pears, etc.

Being at Elk Horn also gave Niels an opportunity to be with his sister Kristine who had found work there. By the end of the

year, she would marry Jens Rasmussen, who was attending classes.

In a letter to his father, Niels mentioned how nice it was to be near his sister.

All is well here. It is hard for Kristine where she works and I don't think she will stay another winter, but we are both happy to be together at the school and can help and support each other.

It looks like it will be hard for me financially at the school [lowa Agricultural College] this year, but with God's help we will make it. Pastor Anker would like me to stay here at the school and continue alone. I'm not mature enough to use my wings by myself yet. I'm glad that I'm getting some experience in giving lectures once a week.

Andreas was also pleased to see his son at the folk school as he mentions in this letter to Niels on his twentieth birthday:

Today is your birthday, so dear Kristine won't get a letter this time. So you will have to give her and Pastor Anker and family my best wishes for the year we just stepped into. May God give you his best.

Dear Neils, today you are twenty. It is twenty years ago that a little well-formed boy lay crying by his now departed mother. We asked God to protect the small crying child. The women said it was good to come crying into the world. It would make you a good singer and a good child.

At least God has given you good health for which you must be thankful. And your spiritual growth will be fruitful if you follow the road that is good and honest.

You are now at the age where doubts will show up and the Tempter will appear in living color, but those are leaders you should not follow. Stay with God and your beautiful childhood faith, then you will be strong on the world's battlefield.

I'm so glad that you got out to the high school, even though it does not go in the direction of Ames. But out there you will find that you are getting to know yourself. You will find many gold nuggets you can take with you which will be a treasure for life. It will give you added strength to progress when you again take up your scientific studies at Ames College.

Believe me, the time you spend up there among so many different people will help to build your personality.

I hope you will learn to understand the goal and the usefulness of the folk high school. Therefore I beg you, as father, in the short time you are there, to give your entire attention to the things they teach which will develop a better human being. You will then be happy in all your studies when you get back to Ames.

You have chosen a wonderful road for your life, God's great creation. I know, dear Neils, that you will be happy exploring God's nature, even if there are hard times, and we all have that. If not, it wouldn't be good. It will be easier then, to open your eyes, and find your life's Friend, the creator of nature, our Jesus.

# 1886 Junior Year

During his junior year, Niels became more concerned about his speech impediment. As a freshman he had joined the Philomathean Society, a debate and exclamatory club, because it gave him an opportunity to recite and speak publicly. He remarked in his journal on his efforts to eliminate his vocal difficulties:

Am working steadily with my voice under the direction of the teacher in elocution, Miss Blood. I have been worrying a good deal over my speech impediment this term which has somewhat kept me from getting down to solid study--but I hope it will be a sufficient goad to the most strenuous exertions on my part to get rid of the defect and I hope with God's help to finally master my trouble.

While on a brief summer break, Niels noted in his journal:

I came home early Thursday morning June 24th and have read aloud and declaimed considerably since then--it is good exercise and I hope that it will help me.

In spite of his fears about his ability to speak before an audience, Niels bravely attacked the problem by giving speeches. He described one of his talks in a letter to his father:

....Last Saturday evening I gave a twelve minute speech in the debate club, Philomathean Literary Society, to which I belong. Such a speech has to be written in a language as "flowery" as possible and I did that. It wasn't too bad. On Friday next week I'm going to give a small lecture, or rather, read it for the Science Club to which I belong.

The subject for my speech was the American poet, Edgar Allen Poe. I used a comparison from the Arts. I said the works of Poe give us an impression similar to the old Italian paintings. The colors were often bright red and brilliant with lot of light right next to the darkest shadows and the edges of the figures were hazy which gives lots of room for your fantasy. (See Appendix B — Literary Works)

The only clue as to the speech impediment that so worried Niels may be found on a page, torn from a pamphlet, tucked into his journal of 1886. Entitled "How to Read," the page gives exercises on how to eliminate stammering and lisping.

This was the year that Niels altered the spelling of his name. All signatures up to this time had the Danish spelling N-E-ils. From now on he spelled it N-I-els. The rationale behind this decision is unknown. Perhaps his American counterparts continually misspelled his name, and he thought it was easier to adopt the American version.

# 1887 Senior Year

In his senior year Niels obtained a secretarial position with the president of Iowa Agricultural College, William Chamberlain. Niels mentioned his work for the president in a letter to his father:

President Chamberlain was here Wednesday afternoon and he said that he would see to it that I would get some extra pay for this winter. There has been a lot more work than he had expected of me.

#### **Another letter states:**

All of last week and the week before I was very busy helping the President in his office, especially the first few days. A lot of new students came in.

Chamberlain was a controversial president who was at odds with the student body regarding secret societies. His son was a fraternity member, and he favored their existence. His adamant support led to student hostility. The worst incident occurred the year after Niels graduated.

Non-fraternity students locked the doors of the banquet hall where a society was holding an approved dinner. The opposing crowd pelted the diners with stones and eggs. Someone released cyanogens, a deadly chemical, into the building. The charges against five students were eventually dropped due to a technicality and no one was punished.

#### **Niels Graduates**

Niels graduated from college in November of 1887 and received a prize for the best graduation thesis. He described his senior year in these letters to his father:

Everything here is the same and I'm reading a great deal as preparation for my thesis for next fall. It will most likely be about improvement of fruits by crossbreeding, a practical and very important subject. There is both money and honor to be gained by someone who succeeds in bringing out fruits, better than old ones.

This week I'll mail out nearly 100 letters (printed on a hectograph) to different places in the USA to find out about the work which has already been done about cross breeding of the different fruits. It is for my thesis. It will probably cost nearly \$5, but it will be worth it. I'll get known, etc.

In another letter Niels discussed his prize-winning thesis, which would later become the core of his Master's work.

We seniors are out of school this week so that we can concentrate on our thesis. That is <u>hard</u> work. My thesis will probably be printed in the State Horticultural Report next year. It is about the crossing and hybridizing of fruits. When I get to Europe I can explore this theme further.

This year I succeeded in crossing a wild apple (crab apple) with one of the best garden apples, the Roman Stem Apple which is widely planted in the large apple orchards, but it is not very hardy. So if my seed will grow, maybe I can create a whole new variety--one which is hardy, will keep all winter and is also of good quality.

New varieties of fruits were part of Niels' dream, but he had another idea. His plans were indefinite, but he desired to make money in the nursery business, as he explained to his father in a letter:

I have a sincere longing to get you a pretty little house in Elk Horn where you can live and work after your own desire, surrounded by friends and relatives. Therefore I intend to get into the nursery speculation as soon as possible.

Then to write much in the Scandinavian papers about fruit and tree planting and advertise in them and in the German papers, and then to begin to mail small fruit trees, etc., most by mail and by express. That's a whole business in itself. The thought would be to supply the farmers with all that sort of thing, and not use agents, but to sell directly to the farmers.

I don't know yet where the best place would be for such a nursery. I'm thinking of northern lowa, sort of in the midst of the area where most of the Scandinavians live.

If it was in the middle of the state, say in Elk Horn, it would be too far south for most of the settlements.

Lake Benton would not be a bad place, but I would prefer to stay in Iowa.

It won't take many acres to start. The worst would be to keep it going in the beginning, the first year or so until the trees are big enough. But with a lot of smaller items, strawberry plants, transplants, etc., it would be possible to get the money coming in quite fast. I would have to have a foreman because sometimes I would have to travel out to the settlements and explore.

The worst is, dear Father, the starting capital. If Elk Horn was further north and close to the railroad, I would be able to teach a little at the school and thereby get my meals. As it is, I'll be an agent the year I start and would have to have a man to take care of it, till the soil, etc. More next time.

Niels never realized his dream of a nursery, but passed the legacy to his son Carl who would run a mail order business that featured many of Niels' introductions. Niels could not have envisioned it would lead to bankruptcy.

During his senior year, Niels became an uncle twice. Sister Helene had a second son, Marius, born in June and Kristine had a son in November, Hans Arnold, named after her husband's father.

### **NIELS GOES TO WORK**

#### 1887-1891

"Hansen, I'm delighted to see you. I just waited for you to try your wings before calling you; they work alright."

**Professor J.L. Budd** 

After graduation in November of 1887, Niels began to work immediately as a salesman for Silas Wilson's Grape Nurseries in Atlantic, Iowa, near Elk Horn. He traveled throughout the winter months by Indian pony to the farmers in the surrounding counties. With his fluency in German, Danish and English, he could easily converse with the customers. Before graduation he had written to his father:

I talked to Mr. Wilson of Atlantic. He is going to have a "plate-book" with colored pictures of fruit ready for me early in November so that I can go straight out and start as soon as school is out.

Niels had plans for the living arrangements for his father and himself after graduation. He told his father:

Mr. Wilson will also be responsible for the needed lumber for a house for you, dear Father, in the fall. I think I wrote you a few days ago that Mr. Wilson talked to me at the State Fair and he said that I could get the needed lumber on his account to build the house. So you see, dear Father, we are going to have a little house and home which will not cost us \$72 per year in rent.

The carpenter in Elk Horn will have the lumber ready to put together a house for us close to Kristine and Jens. Then our belongings can sit there in the house even if it won't be completely finished right away.

I have talked to several from Carroll County and I think there will be lots of business to do there this winter, so we should at least be able to pay off all our debts.

If I can arrange it that way, will I spend part of the winter with you in Elk Horn at Elk Horn Højskole and the rest of the time at the nursery.

During summer vacation you and I will try to find a little house in Elk Horn for you to live in. To rent in the beginning until your land is ready. A place where we can have our things. While I'm there this winter I could work on my plans for a nursery and also learn a little more Danish, etc. It would be good to be together again, right Father?

Be of good cheer, dear Father, I'm so glad that I can help you. It will be my greatest joy to help and support you in your old age. And you can live many, many happy and carefree years yet. That is my prayer.

The small cottage was built on the farm of Kristine and Jens, and Andreas began his retirement. He was sixty-one years old. Considering that the average life span of men in those days was less than fifty, Andreas was thought of as an old man. His time was spent painting copies of famous artwork that he gave to his family and friends. Many of these copies exist today and are proudly displayed by his descendants.

Andreas enjoyed living on the farm with his one year old grandchild Arnold nearby. His other two grandchildren, Andreas (b. 1885) and Marius Olsen, (b. 1887) now lived in Plattsmouth, Nebraska. He was saddened by the death of Kristine's second son, named after him, who lived only one day. Andreas wrote to Niels:

Your sister Kristine had a little boy born two months early. [Born November 15, 1888] He lived one day and

then died, was buried yesterday at Elk Horn cemetery [First Lutheran]. Kristine is doing well after that ordeal. The child was well formed but weighed only five pounds instead of the usual ten to twelve for a newborn. "God's will be done".

#### **Niels Moves to Des Moines**

Niels worked for Silas Grape Nurseries for a year, and then in 1888 he began his job with Capitol City Nurseries located in Des Moines. He went to work for Captain C. L Watrous, a wealthy and prominent citizen of Des Moines, who had a prosperous nursery business and employed over seventy-five salesmen. It would appear that his duties there would be more in line with what Niels hoped someday to acquire--a nursery of his own.

Niels probably knew Watrous from the days when he was a messenger for Secretary Hull and Watrous was a state legislator. Niels may also have been impressed with Watrous' activity in the American Pomological Society that promoted the study and classification of fruits. Here was a man who combined both science and business pursuits.

During this time, Niels wrote a handbook for farmers printed in Danish and Norwegian titled, <u>Handbook of Fruit Culture</u> and <u>Tree-planting</u>." It sold for 50 cents. (Amazingly a copy of this book still exists in the lowa State University library!)

However successful Niels was in the business world, his thoughts turned more and more toward his real love, science. He thought of his work at the nursery more in terms of academics than business, as he observed in a letter to his father,

As far as I can see, my position here will be to my benefit. Here I can learn to be completely "sure" in all areas of my studies and this is of great value to me.

#### Hard Times In Iowa

Another reason Niels may have decided to turn to teaching was a decline in business opportunities in lowa. An area-wide drought, which plagued the states north of him, no doubt hit lowa as well. The searing weather in South Dakota during 1889 destroyed most of the harvest in the central and northern

counties. What few agricultural products reached the market received extremely low prices. Farmers faced economic disaster.

Jens Rasmussen was having difficulties on his farm in Elk Horn. He sought help from Niels in this letter from 1889 that implied crops were not good and painted a dismal financial picture:

I have many debts to pay and have not money and I don't know if you are sending any. I had to give up on Richardson's note this time since the times are very bad. I'm unhappy about selling my barley for 20 cents per bushel instead of for 40, and I don't have very much, so it wouldn't go very far towards all the things I have to pay. I also don't like to borrow money

and couldn't even get any for less that 12%, so if there is any way that you can get money I would be very glad to get it. I suppose you made good money this summer?

We are all well. The little girl is growing fast. [Hans] Anold likes her so much that he wants to kiss her all the time. I think we will have her baptized next Sunday. We haven't quite decided on a name yet. [Marie Kristine, born October 7, 1889.]

No record of a reply to this plea exists. It's possible that Niels continued to support his father and sent needed funds.

A year later Niels was contemplating the possibilities of a career at a college and wrote his father:

About a position in the Experimental Stations, it's not possible to say if it will be north or south. There will soon be a position in Arizona and in South Dakota. That is an extreme in geographic sites. The climate in Arizona is supposed to be very healthy, but I would rather stay in the north.

Niels explored the prospect of working at Iowa Agricultural College. He had maintained his contacts with the school, particularly with Professor Budd, who encouraged Niels to apply for a position. Niels examined the pros and cons of this next career move in this letter to his father in 1890. Niels was mindful

of his obligation to support his father and sought Andreas' advice:

Last Saturday afternoon I went up to Ames and was at the school Saturday evening and all day Sunday and Monday until 4 p.m. I had a joyful and pleasant visit.

The most important part for me about this visit was actually to inquire about next year. Professor Budd was very friendly and said that I will get the next position that opens up and he will do everything he can to make sure that I get it.

I asked him if it was worth it for me to stay with Watrous next year, but the professor said "no" it would be better for me to come back to Ames in the beginning of March if there was not an opening sooner, and then take summer courses to get a higher degree (which I would like to get).

He also said that it would be best to stay in the North (I'm especially looking at the position at North Dakota.) even if one should open up in the south sooner. In the long run it would be best since the opportunity is better for work with fruit bearing sorts. But more about this later.

Now I have told you this, dear Father. The only thing I have against this plan is a big one, and I have to ask your advice as an obedient and loving son. How much money will you need next summer to take care of yourself so you can live really well and be happy?

All debt, both from Karstens in Atlantic (send me the bill) and the debt to Mr. Watrous here will be cleared before winter is over. And at the school I will take care of my own expenses.

The question is if we can afford this. The two of us, dear Father, are partners and my biggest duty and joy is to make sure that you are happy and free without laying too much of my duty on Jens and Kristine. I can accomplish this by working to get a higher position.

And a position could very well open up in early March before I really got started at the school in Ames (that is, if you and I decided that the best thing for me is to leave this place). And then when I am free here I could take the position right away. (I would prefer to have most of a summer's work at the school first.) Consider all this, dear Father, and then write me your sincere opinion.

I have learned everything here that is needed. Anything after this would only be repetition. We can talk more about it as soon as we see each other which I hope will be at Christmas.

Even though the decision to seek employment at Iowa Agricultural College had been made, Niels remained with his employer Captain Watrous another year. He wanted to quit in the spring, but found himself still at the nursery in the fall. He had inquired about the possibility of employment over the summer, doing cross-pollination work for the Iowa State Horticultural Society, but apparently that did not work out.

By November 1891 Niels and Mr. Watrous began to discuss his future with the firm. Watrous slyly offered Niels a raise if he would stay, but would not divulge the amount of the raise without Niels' promise to remain.

Niels put him off with a promise to let him know by December 1st, but Niels had no intention of staying on, even though he had no firm offer from Iowa Agricultural College. He hoped that Professor Budd would make good on his promise to secure a position as soon as he could. He assured his father in a letter, "I'll just say that there is a good chance for a better position before my third year with Captain Watrous is over."

#### **Assistant Horticulturist**

In November 1891 the call from Iowa Agricultural College came! Niels was appointed as an assistant horticulturist with a starting salary of \$800. He ecstatically notified his father,

The Professor writes: "I think for sure it will be a stepping stone to something better and that you will help us to do a good job here." The salary starts as soon as I start working which will be

December 1st. As assistant professor and horticulturist I will have a good opportunity to achieve a high position in my profession.

Professor Budd reportedly greeted his new assistant, "Hansen, I'm delighted to see you. I just waited for you to try your wings before calling you; they work all right."

Unfortunately Niels took up this new position just as the college was undergoing an administrative upheaval. The animosity between President Chamberlain and the student body regarding secret societies came to a head. The students expressed their feelings by refusing to attend the graduation ceremonies in November 1891. Not one independent student attended. Chamberlain submitted his resignation the next day.

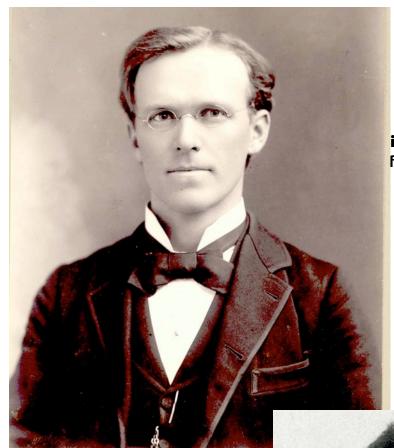
# Iowa Agricultural College—The Teaching Years

At the time when Niels commenced his teaching, agricultural education was just beginning. In 1890 Congress appropriated money for support of this new concept of educating farmers. Iowa Agricultural College took advantage of new money and expanded their faculty. Thus Niels joined a group of professors who had been his teachers and who now recognized him as an equal.

He was involved in both the Experiment Station, which was state and federally funded, as well as teaching classes at the college. He gave lectures and experimented with plant breeding. Although he was gainfully employed, money was still tight. Niels sent a plea to his father at the end of December, shortly after he began work:

As for money, it will be tight for me until early February. If you could spare \$15 until then it would be nice since I don't want anybody here to know about it. You can send a money order or a registered letter.

Niels, by now a self-assured young man, was ready to embark on his life's work which he felt would lead to success. What he did not know was that in a short time he would meet the love of his life, Emma Elise Pammel, whom he would adoringly call "My White Lily."



iels, Assistant Professor f Horticulture, IAC 1892 Niels, Professor at of Horticulture and Forestry,

Emma Pammel arrives IAC, 1892

### EMMA ELISE PAMMEL

# "My White Lily"

"I think as much of you now as in 1892."

#### Niels in a letter to Emma

Niels once wrote to Emma's father, "I have loved Emma ever since I first met her at Ames." For Niels, eight years older than Emma, it was love at first sight.

Niels sought the attention of this young lady almost immediately after meeting her. He proclaimed in a letter to Emma: "I think as much of you now as in 1892...." Since Emma was only eighteen when they met, she probably did not take the suit of this older man seriously; after all, he was twenty-six! She considered him "too old."

Five foot ten inches tall with a slim build, Niels was not an imposing figure although the family considered him handsome. Emma was unimpressed with his soft, wavy, light-brown hair and sparkling blue eyes. She could rely on the restriction on dating which was a real handicap to any courtship Niels may have contemplated.

Age was not the only discrepancy. The differences in their circircumstances were deeply apparent. Living with her highly regarded brother Louis, head of the Botany Department, in a large two-story brick home, Emma was unmoved by the attentions of this son of a poor Danish immigrant artist who rented one room in a home near the campus, which he sometimes shared with his father during the winter months.

His wardrobe was, by his own admission, fairly shabby and worn. His finances did not allow much in the way of entertaining a guest. For a time he did not even have a room, but slept on one side of his office - hardly the makings of a suitable gentleman friend for Miss Emma.

Other contrasts in her background and the life of Niels set them apart. Whereas Niels had suffered the vagaries of a life with a freelance artist and an insecure income, Emma had grown up in an affluent family on a large farm in Wisconsin.

Born 17 November 1874, she was the ninth child of Louis Carl and Sophie Friese Pammel, German immigrants. Her father had earlier established a successful meat market when La Crosse, Wisconsin, was a small village. He then built up a large, prosperous farm on the outskirts of La Crosse, which contained 430 acres and a stone quarry. With careful farming methods, Louis managed his estate with astute business sense.

By contrast, Niels' father Andreas never owned an acre of his own in this country. Had Andreas remained in Denmark he might have retained the farm he owned before he was married. He built a home near Ribe, but when he arrived in America, his ability to have a home of his own was forever beyond his reach. He always rented. He failed at his one attempt at establishing a homestead in South Dakota and lost the land in 1892.

### **Home life**

Emma grew up in a home frequented by neighbors and friends. The Pammel farm, located near town, was a focal point of hospitality. The obituary of her father Louis stated, "Their home was famous for its hospitality and many of the old settlers recall with pleasure the times when they received its good cheer and entertainment." Son Louis Herman recalled that his mother, Sophie, "frequently entertained some of the ladies of the Germania and her German club. She was a fine hostess, jovial and good natured."

Both parents were well known in La Crosse. Louis served as an alderman and township supervisor. He belonged to Germania Club and liked to bowl. Sophie also had social links in the community. She belonged to two pioneer ladies clubs and was a charter member of one.

Louis' obituary noted, "He was a man of strict integrity and was faithful in his friendships. He was a man of strong character,

upholding the right." Sophie's obituary stated, "Mrs. Pammel was a highly respected resident of La Crosse and enjoyed a wide acquaintance."

On the contrary, Niels grew up in a quiet household essentially as an only child, with his sisters far away in Denmark. At times his father was not even there. Andreas lived away from home whenever he had a job in another city. Andreas had no specific ties to Des Moines other than his Danish friends. The only mention of a friend visiting was when an old acquaintance from New York days came to see them.

Emma's parents left a large estate including a farm and other properties. Andreas, by contrast, left no inheritance. In fact, for several years Niels struggled to keep his aging father debt free. In the last years of his life Andreas was totally depend-ant upon the charity of his children.

#### **Education**

The early childhood education of Emma also differed from that of Niels. They both attended public schools, but her parents hired a private tutor who taught Emma and her siblings to read and write German properly. They could already speak German fluently since this was the language used in the home, but they were equally fluent in English.

Niels on the other hand began his schooling in a language not his own. By the time he was ten, he had enrolled in three different school systems in three different states. When he wanted tutoring, he paid for it out of his own pocket.

Both Emma and Niels were raised in the old world traditions of their parents. However, Niels' father was artistic in nature and appears in correspondence with his children to have been a gentle person, one inclined to philosophize and encourage. Emma grew up in a household where the father was a businessman and one inclined to dominate. He had put in long hours to build his farming operation, and expected his sons to farm.

Both Emma and her brother Louis resisted the accepted family pattern and yearned for something beyond the boundaries of the farm in La Crosse. Louis Herman, whose formal education had stopped at fifth grade because his father wanted him to work on the farm, decided at age seventeen that he wanted to go to college.

In those days an eighth grade education was the norm, which Louis Herman did not have. Although he lacked an elementary education and never attended high school, Louis decided to attend college. His parents endorsed this idea and provided private tutoring for Louis that allowed him, by diligence and academic endeavors, to graduate from the University of Wisconsin.

Like her big brother, Emma resolved at age sixteen to attend college. Her decision to drop out of high school after her sophomore year and leave home may have caused a troubled reaction in the family, although in those days young girls who reached confirmation age often left home to make a living.

Such was the case in the Hansen family. Both of Niels' sisters became servant girls at age sixteen and Niels himself had to drop out of high school to provide for himself. None of the Pammel daughters had to worry about such matters as their father had ample money to provide for them until they married.

Louis and Sophie agreed to the idea of a college education for Emma. Most likely she chose lowa Agricultural College because her brother was on the faculty there. The fact that she would be under his direct supervision must have softened the blow of Emma leaving the nest to pursue the rather shocking ambition of a college education.

The tall, slim teenager with blue eyes and light brown hair entered college, probably during the summer term of 1891, as a "sub-freshman." She ignored the usual curriculum for women that was limited to Domestic Science and carried a double major in chemistry and botany. As a student of the sciences it was inevitable that she would meet the assistant horticulturist, Niels Hansen, who took up his new position shortly after she arrived.

### **NIELS AND EMMA**

#### 1892-1896

"I know I have tried very hard to forget you but could not make the slightest progress in so doing." Niels in a letter to Emma

Emma took her academics seriously. A handwritten summary of her grades reveals that she was nearly a straight "A" student. She was no doubt single-mindedly adhering to a tough schedule of study with her double major. A social life was not part of her agenda. Niels continued to pursue Emma. She was not impressed by his attentions. The family has an invitation from Niels to Emma asking her to attend a college function. She wrote across the invitation, "No! No! No!"

During her college years, Emma may have come under the influence of a well-known alumna, Carrie Lane Catt, one of the pioneers of the women's suffrage movement and the founder of the League of Women Voters. At Lane's suggestion military instruction became available to women students. During Emma's first year at IAC, she became a lieutenant in Company G (for Girl).

Emma met another notable historical figure, George Washington Carver, who began his studies at the same time as Emma. They no doubt saw each other frequently as they were both studying for a botany major. Carver would later gain international fame for his work at Tuskegee Institute with the peanut and other southern plants.

When Carver was unable to find housing on the campus as an African American, Emma's brother befriended him. Louis was impressed with this man who had been born a slave and who

was seeking a higher education on his own. Louis arranged housing for Carver. He partitioned off a room in the corner of the basement of the Botany building that remained Carver's home until his graduation.

This act of kindness on the part of Louis sparked a friendship between the two men that would last throughout their lifetimes.

Carver was a frequent dinner guest in the Pammel home. He became friends with the entire family, sometimes sketching pictures of the children.

Carver and Louis maintained their friendship over the years, and exchanged letters that disclosed their respect for one another. Carver addressed his letters, "Beloved teacher" and when he heard that Louis was retiring, Carver wrote: ".. And whatever success I have been able to attain is due, in a very large measure to you, my beloved teacher, Christian gentleman and friend."

Emma saw Carver frequently during the classes they both took, as well as during the family dinners at her brother's home. These informal, friendly meals must have expanded Emma's views of the world as she listened to the stories Carver had to tell of his early life and slavery in the South. One can visualize the family sitting around the dinner table as Louis and Carver engaged in lively discussions.

Carver was also Niels' friend. It was to Carver that Niels turned when he wanted an ally in his courtship of Emma. Niels, who could not attain the privileged status of dinner guest that his friend enjoyed, would ask Carver to take flowers from the college greenhouse to the Pammel household. Later Niels delighted in telling his family how Carver would observe him looking discouraged and try to cheer him up with a smile and the suggestion, "Would you like me to take Miss Pammel some roses, tonight, Professor?" In his autobiography, Carver referred to his friend as "the melancholy Dane."

## 1892-1894

In 1892 Niels experienced three family events of a contrasting nature. His father reached the fifty-year milestone as a professional painter but lost his homestead claim that had not been "proved up." Tragically, it was also the year that the children of Kristine and Jens Rasmussen became ill with a childhood disease, probably scarlet fever, a killer disease in those days. Arnold, age five, survived, but his little sister, Marie Kristine, died shortly after her third birthday. In the space of five years, Kristine and Jens had lost three of their four children, two of them infant deaths.

However, Niels was cheered by the news that his bereaved sister Kristine had safely delivered a daughter, Katherine Marie, born 9 February 9 1893, their fifth child. A year later the Rasmussens had another child, Thorvald, born January 29, 1894. Meanwhile Andreas spent part of his time in his cottage on the Rasmussen farm and part of the time in Ames with Niels.

Niels continued working toward his Master's Degree and in 1893 became secretary of the Iowa State Horticultural Society. His teaching duties increased at the college that had now become the Iowa State College of Agriculture and Mechanical Arts.

## **Niels Goes to Europe**

From June to September in 1894 Niels took a four-month trip to northern Europe at the behest and encouragement of Professor Budd who advanced Niels' salary to help him pay expenses. During this paid "sabbatical" Niels visited ten countries and twenty experiment stations.

The object of his trip was to observe scientific experiments abroad; however, he managed to stop for a few days and visit members of his Danish family.

He really wanted his father to make the trip with him to fulfill a life-long dream of most immigrants - to return to their homeland. He wrote in a letter to his father:

It would be wonderful if you could travel with me, dear Father, and then stay in Denmark while I go to the other countries and then we could travel home together again.

Money was again the reason that frustrated their goals. He explained to his father:

Last winter I took out another \$4,000 in insurance, making it a total of \$5,000. That money would have

been enough to pay the fare to Europe for you (not accommodations). I thought it (the insurance) should come first.

When Niels returned to Iowa he arranged for accommodations for him and his father. Niels looked forward to having Andreas spend the winter in Ames with him. He described the arrangements in a letter:

Today it was decided about our winter lodging. It will be with a private family a few hundred steps from my office. Professor Budd thought it was best if I lived as close to my office as possible this winter and I think so too. Both in town and out here the price for room and board is the same, \$4 per week. That is \$8 for the two of us. It is always a little more expensive in the winter than in the summer. I will have a busy winter and we can have a jolly time since we can be together in the office every day all winter long.

## 1894 Emma Graduates

Emma received her Bachelor's of Science Degree shortly before her twentieth birthday in November 1894. She graduated with honors and stood at the head of sixty-eight graduating students. She had the distinction of completing a four-year course with a double major in botany and chemistry in three and one half years. Obviously an intellectual match for Niels!

George W. Carver also received his degree at the same time and became an assistant botanist. Emma immediately took a job as an assistant chemist while working on her Master of Science, a highly unusual and ambitious undertaking for a woman of those days. Her position was now equal to that of Niels.

#### **Niels Goes To South Dakota**

After four years Niels completed his Master of Science Degree in 1895 with his thesis, "The Crossings and Hybridizing of Native Fruits, A Study of Apples." By August 1895 he was the new professor of Horticulture and Forestry at Dakota Agricultural College (South Dakota State University) in Brookings, South Dakota. Located east of the village, the college consisted of four buildings, a student body of about 260 and 15 faculty members.

Niels was soon faced with an administrative upheaval comparable to the one he had seen in Ames when President Chamberlain had been forced to resign after student protests. The president of Dakota Agricultural College was under intense scrutiny by the community and the student body.

The trouble at South Dakota State had begun three years before Niels arrived, when President Lewis McLouth dismissed some faculty members in order to appoint new teachers to the college. Some felt his appointments smacked of cronyism. This action resulted in faculty unrest and a student body protest. Student leaders denounced the new teachers as "politicians, not instructors." Protesters wrote a letter to the Sioux Falls Press, and the president promptly expelled seven students for writing the article. The student body went on strike. Only 80 students finished the school year in 1892.

When Niels arrived on the scene in August, the controversial President McLouth had again dismissed six well-known and respected faculty members and supplanted them with five new professors. Niels, as one of the new replacements, was caught in the middle of the yearlong wrangle. Faculty and townspeople took sides in the dispute over President McLouth's actions. Supporters of the ousted professors no doubt looked on the new faculty members with a prejudiced eye.

In the spring of 1896 The Board of Trustees instituted a series of charges against the president accusing him of gross neglect and failure to command the confidence of the faculty. McLouth resigned in May.

After the president's resignation, the dismissed professors were reinstated, while three of his appointees were removed. After the bloodletting was over, only three people from the McLouth administration remained. Niels must have breathed a sigh of relief to find he was among the survivors.

More important to Niels was the work he could do at the federally sponsored Experiment Station. Here he could pursue his passion - hardy fruits. His graduate work on apples encouraged him to apply a radical new principle of plant breeding that he was developing - cross pollination of wild fruit with more established varieties. To collect hardy native plants

he roamed the prairies in North and South Dakota, as well as Canada. His first experiments were related to strawberries and raspberries that could survive the harsh climate.

Niels invented the tub orchard-- an innovative device that would transcend the short growing season in South Dakota. This procedure would later be adopted by other experiment stations across the world. The fruit trees, shrubs and roses were planted in tubs and grown outdoors in a sheltered enclosure, then put in a cellar over winter. They were brought out in the spring as needed. When the fruit was harvested, the tubs were moved out into tub-yard to ripen the wood. This method made possible the crossing of plants that were tender to winter cold and that bloomed at different seasons.

Niels described the tub orchard in his unpublished manuscript, "The Saga of the Bush Cherry."

In taming fruits, the short cut is hybridizing with other species. But operating on fruit blossoms outdoors is difficult and often impossible. The blossom time is only a few days, and a whole year must elapse.

After the greenhouse was built in 1909, hybridizing of the fruits from the tub orchard was done under glass. Niels wrote:

By this method the crossing work is extended over several months instead of several days; in fact it makes the work possible throughout the year. This method has been adopted widely by experiment stations in the United States and in foreign countries.

#### **Dear Miss Pammel**

As intriguing and time-consuming as his new job was, Niels continued to court Emma by mail. He no doubt felt he was now in a position to offer Emma a suitable home and social life in an academic environment, but Emma was finishing her Master's program and not inclined to entertain marriage. She was earning her own way as an assistant chemist and working hard on her thesis.

She completed her Master of Science degree in two years as compared to Niels' four-year effort. She received her degree in November of 1896 shortly before her twenty-second birthday,

along with her friend George Washington Carver. She found a position teaching science at Des Moines High School for a semester. Then she spent the summer of 1897 in La Crosse and in the fall moved to Wahpeton, North Dakota, where she taught science in the high school.

Niels' letters followed her wherever she went. He seemed puzzled by her plans for the future (which apparently did not include him!). He wrote to her shortly after her graduation:

**Dear Miss Pammel,** 

Your letter of the 11th inst. at hand. I have read your letter very carefully several times, and have tried to read between the lines, but confess I do not fully understand the letter, nor your ultimate view of life.

You write of "many plans" that you want to fulfill. Please tell me about them; possibly I might add a word of suggest-ion or advice. Are you working to win fame? Or do you consider fame and happiness as synonymous-a great error that many have made.

You have decided ability as a student and scientific investigator, but do you really intend to delve in these fields alone as long as you live? If so, you will surely find cause to change your opinion when the shadows of life's afternoon begin to lengthen toward evening.

You speak of teaching several years-and what then?
Once you spoke of studying at John Hopkins
University, and at another time of traveling in Europe.
Tell me all about your plans, as far as you care to tell
them. These two plans are good, but why be alone in
all your studying and traveling?

Of course I think more of you than of "a mere friend"-a thousand times more. How can I help it? You have known that my sentiments are more than friendly for a long time. I know I tried very hard for a long time to forget you but could not make the slightest progress in so doing.

I cannot believe that you mean all that your letter implies. If you have made no choice or have no

preference at present, I shall be very glad to continue the correspondence. Will try to make it as lively as possible. Succeeding letters will discuss subjects more interesting to you. I can write letters more or less interesting on many topics, but in this letter I haven't the heart to write about anything else.

In the next letter--shall it be European travels? Ideal vs. Realistic art? The present political question? Recent magazines? New discoveries in science? Chemistry? Horticulture?

The fields of science, literature, art and philosophy are indeed wide and full of the choicest blossoms. All we can do in a life time is to pick a few from each field and study their structure and try to trace the Master's handiwork. Write soon to

Sincerely Yours, N. E. Hansen Auf Wiedersehen.

# **NIELS GOES TO RUSSIA**

# 1897-1898

"I might not escape with my life next time."

#### Niels in a letter to Emma

The year 1897 was of tremendous consequence to Niels. While Emma was pursuing her independent lifestyle, Niels completed a colossal journey for the Department of Agriculture and earned a national reputation as a top-notch scientist and explorer.

Called by President McKinley in 1897, James "Tama" Wilson, the new Secretary of Agriculture, resolved to use his powers to help the American farmers grow better crops. He was determined to bring a research environment to the Department of Agriculture. His first act in office was to choose Niels to be the first of a small cadre of scientists who were sent on worldwide explorations to find better plants for U. S. farmers.

Wilson envisioned a dedicated group of rugged, energetic, fearless scientists who would explore the world for better plants. These men would need a wide and accurate knowledge in both horticulture and agriculture. Eventually Wilson appointed twenty intrepid men, whose daring exploits matched Niels' experiences. They found many plants that improved American agriculture for years to come.

# First Plant Explorer

Wilson's appointment of Niels as the first plant explorer came about through their connections at Iowa Agricultural College. James "Tama" Wilson, who had come to the college the same year as Niels as an agriculture professor and head of the Experiment Station, noted the energetic young scientist

working on his Master's degree. He was impressed with Niels and agreed with the assessment of this inventive student by Ames' Professor Budd who once commented: "Hansen, you can think of more things in one week than many can think of in a hundred years."

Niels took a leave of absence from SDSC at full salary, and all expenses paid by USDA. His mission was to find forage and other plants that would grow in the harsh condition of the plains and send the seeds back to Washington. Robust, indefatigable, and bold, Niels relished the opportunity. He left his post at the college in June of 1897 and embarked on an eight-month journey that would take him to Czarist Russia, Siberia, and China.

After reaching Moscow in late July, Niels recorded in his trip diary that he spent the first few months in Russia traveling by train and steamer to major cities where he sometimes dressed in a "tall silk hat" and presented his credentials as a representative of the United States Department of Agriculture which was financing the trip. He attended church and stayed in hotels, usually in a chain called "Hotel Europe." He visited museums and spent some time sightseeing.

Niels handed out business cards printed in both Russian and English. Russian officials sometimes assigned interpreters or scientists to help him in his search. He brought along a camera to capture on film the various places and people he met.

The diary discloses that he waited at the first of each month in some large city for money to continue his mission. Niels related that he attended agricultural exhibits and institutes. He stopped in the major cities and contacted officials and others who could sell seeds of agricultural products that he determined were of sufficient hardiness. He had letters of introduction to officials and others who could sell seeds. Even in the more remote provinces Niels stated that his first act was to meet with the governor or military commander.

# On To Siberia

At the end of August Niels decided to focus on field explorations in the southwestern part of Russian Asia. He aimed toward an area along the Afghanistan and Chinese borders. He was on the trail of a hardy alfalfa that he learned grew on the forbidding cold steppes of Siberia and had been used for centuries as fodder for horses and cattle. But he also had his eye out for other plants.

As he traveled near the Volga River, he came upon a land so dry that dust clouds forced him to breathe through a wet sponge. Despite the intolerable conditions, Niels noticed how well fed the camels appeared. He immediately concluded they were surviving in these harsh conditions because of something they ate. Upon inquiry, he discovered the answer lay in a native grass called gitniak. He felt sure this food would grow in the drought areas in the United States and procured some seed.

Niels described this fortuitous happening in a report to the Iowa State Horticultural Society in 1944:

Here is the story. In the summer of 1897 I was east of the Volga River, north of the corn belt and it was a very dry steppe region. Hundreds of camels passed us with tea and other products from China. It was a dust bowl with choking clouds of dust, so I poured water from my canteen on a large sponge and fastened it over my mouth and nose, but the camels, cattle and other livestock appeared well nourished. The reason was this native grass, called Gitniak by the native settlers. I brought the first samples to America; in fact collected it in many other places including west Siberia. In America it is called Crested Wheat Grass.

Some observers believe this grass will ere long cover hundreds of millions of acres of dry prairie regions of many western states. I am glad that I had a wet sponge that day.

He began in the fall after harvest time and extended his travel into the winter months on an expedition that for several weeks took him far from the safety net of the Siberian Railroad and thousands of miles from Moscow.

After he left the Uzbek region of Turkestan, he abandoned civililization and his accommodations became more primitive. Niels had stored most of his clothes in Kiev and purchased warm clothing in anticipation of the coming winter weather. His exploring outfit also included a rubber billy club, a dagger on his right side, a revolver in his belt, field glasses, and magnifying lenses.

His biographer, H. L. Taylor, described his protective garments in her book, <u>To Plant the Prairies and the Plains</u>. He and his companions

Were dressed in double reindeer suits--fur inside and outside. Under the reindeer skin they wore a double wool jacket. Their boots, of double sheepskin, reached to the hips. Fur caps with a string to put them entirely over the face, and skin gloves completed their outfits.

Niels reported in his diary that he hired a driver and bought a tarantass, a sort of buckboard with wooden wheels and no springs; the bed of the carriage was suspended on wooden poles. He traveled from post station to post station, about 30 miles apart, much like the stagecoach routes of the Old West with a change of horses at each station.

Niels traveled under the authority of the Russian government with a special permit that allowed him the services of the best available drivers and horses at each relay station. Sleeping quarters in the stations were small rooms with a stove and candles for light.

A family story is told of the long reach of the power of the Czar and the importance of his letter of permit. A guide confronted Niels out on the uninhabited steppes and threatened to kill and rob him. Who would know what happened? Who would care about this stranger?

Thinking quickly, Niels demonstrated he knew the peasant mind. He took out the permit stamped with the red wax seal of the Czar. The peasant, who was probably illiterate, nevertheless recognized the seal. He knew that Niels was under the protection of the Czar. He immediately knelt to the ground, crossed himself and promised to fulfill his duty.

Niels found some things pleasant about the overland trip. He remarked in one manuscript, "In overland travel in Siberia, I noted that the deep silence of the vast steppes was broken by

sleigh bells, all day long in summer and in winter, the jinglejangle keeps active the spirit of men and horses."

He stopped to greet governors, military commanders or agricultural experiment station directors in order to find out about the local plants. He questioned soldiers and farmers about the forage their animals ate.

Niels started from Tashkent, Turkestan, in September. Although alfalfa was the primary quest, Niels also kept his eye out for hardy fruits. He was exceedingly interested in pursuing a red-fleshed apple that he had observed in bazaars along the way. He described his journey in an unpublished manuscript, "Red Apples with Red Flesh and Red Flowers."

Late in 1897, in visiting the north western Turkestan as Agricultural Explorer sent out by James Wilson, Secretary of Agriculture, for the United States Department of Agriculture, I came to Vierney, now called Alma Alta, capital of Kazakstan.

This town of some 20,000 people at that time consisted mainly of political exiles. It was also remarkable for having earthquakes on an average of once a month. Over 700 people were killed in one of these upheavals. It is in the Tien Chan Mountains which might be considered a northern extension of the Himalaya region.

Here I made it a point to see a Polish jurist, Niedzwetzky, in government service, who was an enthusiastic amateur horticulturist. On his mountain explorations, he had recently found a new race of apples—red throughout, not only the skin, flesh, and seeds, but also the flowers. Even the wood showed red under the knife.

I secured more seed, and learned that this unique race of apples might expand eastward. I determined to follow the trail of this apple eastward. Traveling as rapidly as possible and changing horses at post stations every twenty or thirty miles, I went over the high mountains. I walked whenever the road was too steep for the horses.

As I neared Djarkent, the capital of a Chinese Mohammedan region, Russian soldiers came to meet me as a bodyguard. They intended to accompany me over the dangerous part of the journey, but I had already gone over this part, so the guard returned.

At Djarkent I found red fleshed apples in Chinese bazaars. A friendly high Chinese military officer honored me with an elaborate banquet. I remember shark fins and water lily seeds were some of the items on the menu. There were no hotels but I found lodging at the home of a leading Chinese merchant.

I continued to journey into the province of Ili, accompanied by a soldier guard. Here also I found red-fleshed apples in native bazaars. They were not remarkable for large size or good quality, the red flesh was the remarkable character-istic.

I decided to follow the trail of this apple eastward into China, and so continued my journey some eighty miles over the Chinese border to Kuldja, capital of the province of Ili, a province held by Russia about ten years as hostage for a war debt.

Cossack soldiers accompanied me. In visiting a bazaar enroute to Kuldja, I lingered long over the apples and other products, but the Cossack captain urged we had better keep moving because a large crowd gathered and began to throw stones into the tarantass, or covered wagon.

Niels spent five days in Kuldja and shortly before Christmas he thankfully turned west and crossed the mountains back into Russia. He was quite sure that he had found the northern limits of one kind of alfalfa—blue flowered. He had also, on orders from Secretary Wilson, bought twelve tons of brome seed.

In addition, he was pleased with his fruit discoveries. He had discovered many new melons and a red-fleshed apple. The melons would go to the southwestern United States for experimentation. Hybridization of these fruits would eventually produce the popular honeydew melon.

### **Homeward Bound**

The homeward trip was plagued with trouble. His trip to Omsk, located on the Siberian railroad hundreds of miles away, took over a month with many obstacles in the way.

First were the mountains that took three days to cross. Then a five-day trip across the plains became a nightmare of frozen ruts and bone-jarring travel in the springless tarantass. One night his party was caught in the open when a blizzard, called "buryan" by the Russians, blasted the small group. They spent the night without shelter in the bone-chilling storm until morning when they could find the road to a way station. Snowbound at the station for two days, Niels became ill with a severe throat infection (possibly strep throat).

In spite of the fearful weather, he decided to seek medical aid 40 miles away at a military post near Sergiopol where he knew he could find a doctor. He described how his driver had to make several attempts to find the military post in the driving snow. He learned later that another caravan became lost and two teamsters froze to death in the same storm. When he was brought in after an all night ride, he reported in his trip diary: "I was nearly gone."

After being treated by the army doctor, he suffered a near fatal accident by asphyxiation at the post house where his team was given shelter. Biographer Taylor graphically described the event.

The sleeping quarters in the post stations consisted of a small room provided with a stove to temper the cold, a tallow candle for light. Instead of beds there were benches without pillows or blankets and Hansen slept with his boots on to prevent their being stolen. In order to keep a low fire all night the stove was tightly closed—too tightly closed, it proved. The men were nearly asphyxiated. So overcome were they by the deadly fumes, they could scarcely stagger to the door for air, but the fresh air revived them .. "

Niels commented in his diary, "At 4 A.M. I ordered to be taken to hospital. The post house room was too small and air bad." He admitted that he was very nervous all day. He was lodged in a

comfortable room and spent eight days recovering. During this illness Niels contemplated his mortality. He mentioned in his trip diary: "Have written a long letter to Secretary Wilson giving directions in case of my death enroute."

When he continued his journey he was still weak and was relieved to be traveling by a covered sleigh. A stop in Semipalatinsk for additional medical treatment resulted in confinement for another eight days in a hotel. The medical treatment included a poultice of lard and turpentine that blistered his chest.

Recovered at last, Niels began his final trek home where he faced many long weeks of travel. His journey over the snow-covered steppes from Semipalatinsk to Omsk took a total of seven days with travel sometimes limited to less than a hundred miles a day. He did not reach the relative safety of Omsk until January 24, 1898.

The entire 2000-mile trip which began in Tashkent, Turkestan, and ended in Omsk had been accomplished by sleigh and tarantass, a feat which Niels commented on later in a self-deprecatory manner.

He drolly remarked, "I can recommend overland travel by troika (tarantass) as a sure anti-fat cure. But I can also say that since that 700 mile ride I have never cared about sleigh riding." Another time he humorously commented, "Riding hundreds of miles in a springless wagon is good for indigestion, if you can stay in the wagon. It settles your food."

He still had thousands of miles to go. His journey from Omsk to Moscow on the Siberian railroad took another week. From there he went to Warsaw, Berlin, Bremen and Bremerhaven where he embarked on a ten-day ocean journey home by steamship. When at last he arrived in New York in late February of 1898, he had been gone for over ten months.

An interviewer at a later date asked if he wouldn't hesitate to undertake a winter trip into Siberia again. He confidently asserted,

I am wholly without fear; I have always been, and nothing can stop me---the risk of getting what I'm

after is exciting and stimulating. I enjoy good health and have the essentials of good health in travel.

The goal is a mighty one. Adventurers must not be too cautions; the good Lord knows where to find me at any time. You don't get very far if you keep to the sure, safe road all the time.

But he confided in letters to Emma,

It has been a much harder trip than I anticipated. I have found many interesting plants, but would not have undertaken the trip if I had known how hard it would be.

Parts of Russia are pleasant traveling, but other parts no amount of money could hire me to go through again. I might not escape with my life next time.

### **USDA Overshelmed**

The return of Niels with tons of seeds and plants from Russia overwhelmed the small staff of the newly formed Section of Foreign Seed and Plant Introductions (SPI). David Fairchild, head of the Section, complained that no provision had been made to handle the "Russian deluge." Secretary Wilson found an old carriage house and used it for storage.

Fairchild went on to protest that he was overworked with no time for correspondence or to make plans for exploration. He commented the "handling of Hansen's cold-resistant seeds and plants were a job in themselves." He went on to explain that the seeds would have to be distributed in packets to experimenters as yet unknown, who would need endless correspondence for proper follow-up. He was also worried that spring would come before the seeds were distributed.

After Fairchild resigned in October, Niels was offered the position as head of the SPI, but he refused. He would later report to the lowa State Horticultural Society:

This would have meant a study of plants of the whole world with a large staff of science specialists.

preferred to return to the field of work in the prairie Northwest, and have never regretted that decision.





Andreas , 1898

Andreas retires, Circa 1802

Niels, Helene, Kristine. with







Niels, 1898



Emma, daughter Eva and mother Sophia

First home of Emma and Niels. Brookings South



## TOGETHER AT LAST

## 1898-1904

"I have loved Emma ever since I first met her in Ames."

Niels in a letter to Emma's parents

Through all the vicissitudes and hardships on his long expedition Niels never stopped writing to Emma. His letters detailed much of what he saw and read like a travelogue that described strange sights and historical perspectives. He mentioned several times the souvenirs he would bring home.

It was during his stay in Omsk that he received some delayed letters from Emma. He read and re-read them and must have received some sort of encouragement because he was confident enough to propose marriage. Even though he began his letter with the usual "Dear Miss Pammel," he quickly slipped into a more intimate salutation and boldly called her, "my dear Emma."

27 January 1898

Omsk, Siberia

Dear Miss Pammel,

Yesterday I received my letters from Moscow. Seven letters from you all in one day. . . . I always consider myself very fortunate to get even one letter from you, my dear Emma, and seven is much more a lucky number.

But only think, this is the first since November 9. I read all the letters thorough five times and will read and re-read them on the way to Moscow. I was truly glad to get these letters from you, inasmuch as I think as much of you now as in 1892.

I hope also that, health and Providence permitting, we will not need to write many letters to each other in the near future because as husband and wife we will have a home together. You know that has been my wish ever since we became acquainted.

I thought I would wait before I got to America to tell you this, but now, as I intend starting tomorrow on my way to America via Moscow, Berlin and Hamburg, I deem it best to write you this short letter which will reach you sooner than I will, as I must stop at several places on the way.

In your letters for now nearly two years I have tried to read between the lines and have been much encouraged by them. And now I hope you will begin your letters more than "my dear friend"; what the word is to be, you of course must decide.

. . . . . And now, my dear Emma, I remain as ever yours,

#### N. E. Hansen

He did not have Emma's acceptance by the time he arrived home. Instead, he received word that his father was seriously ill in Iowa. Niels hurried to his father's bedside and was with Andreas' when he died on March 16, 1898. The man who had been Niels' advisor and friend as well as a devoted father, and who would have shared the acclaim of his son's triumphant return, was no longer in his son's life.

Stricken with grief, Niels continued to write to Emma and confided his feelings. These letters do not exist, but their nature can be inferred from Emma's response ten days after Andreas' death. She finally confessed to Niels that she loved him in this endearing letter.

# My dearest Niels,

I have just read and re-read some of your letters and I have thought of many, many things in their connection. I can no longer wait and now, my dear, I will say, <u>yes</u> I will be your wife. I wish you were here so that I could have told you the same words I have just now written.

I have felt that I wanted to tell you this, these last weeks, but I just thought I would wait until I saw you, and talk the whole matter over with you, but I know there can be nothing which will prevent our being separated except eternal sleep, and then we will still walk in the same paths.

I know I cannot be happy except having you at my side asking your advice in all of my undertakings. I wish we were closer together that we might see more of each other.

I hope you received the letter I wrote to you yesterday and now, my dear, I said I had the other letters, but probably it would be just as well you wouldn't read them now, but I'll give them to you when you come up to see me. For I have told you all in the few words at the beginning of this letter.

Trust me it has taken me these seven years to say so few words but now I will not break my promise, "For now I see with clearer eyes the things that have been and the things that are." I will ever strive to make your life happy and in doing that I will increase my own happiness.

You said in your last letter that you were tired. I hope when you get this letter you will feel more rested. You have had a great deal to go through with these past weeks. If I were with you I might bear some of your sorrow. Think of me, my dear one, and think that I am with you in all of your troubles, do not bear them alone. Tell your troubles to me and I will do all I can to help you cast them aside.

I am writing this after school at 5:30 p.m. but I want to mail it so it will go off tonight.

Promise me, my dear, that you will keep this as a secret at least for the present. I will tell you the reasons when I see you.

I must close hoping to hear from you real soon. Now with a kiss which I send you for the first time but not for the last time, I hope.

Ever your lover, Emma

So Niels finally won the hand of his ladylove, a task more daunting to Niels, perhaps, than the job he had just done for the country. His employer, Secretary of Agriculture James Wilson, once said of Niels, "When he sees something of value, he knows it, and when he goes after a thing, he gets it." Such had been his pursuit of Emma.

But what a tangle of emotions Niels must have felt! On the one hand he had Emma for whom he had yearned for six years, but on the other hand he was grieving the loss of one who had been the mainstay in his life.

# Niels and Emma's Engagement

Although Emma was twenty-three and able to make up her own mind, a proper engagement required the sanction of her parents, so Niels asked for their approval in a formal letter as he explained to Emma.

I wrote the letter to your parents, as I already told you in my letter of Friday. I hope the answer will be favorable. You know I have had very little chance to get acquainted with your parents. Your father and I have only met once.

I remember your father took me out to the orchard to show me his fruit trees at the time of my visit. Now at all other times I am interested in fruit trees, but that day I wasn't at all interested because I had come especially to see a certain blue-eyed girl with a queenly bearing and very good looking. But I had to appear interested in the fruit trees all the same. I hope you didn't think I neglected you any that afternoon, I regretted that my visit was so short.

I did not write a long letter to your parents, my darling, but thought I had said everything that was essential in the letter and that your letter home would be of more effect than anything I could write. Write me as soon as possible of you parents' letter.

Niels sought the blessing of Emma's father in this quaint letter.

You know that your daughter Miss Emma and I have been corresponding for a long time and that we are

good friends. I write this letter now to tell you that I have loved Emma ever since I first met her at Ames and that Emma's friendship has ripened into love. I have asked her to become my wife and she has said yes. If you have no objections we expect to get married sometime this coming summer.

As you know, college professors are seldom wealthy men I have no fortune to offer Emma but she is willing to keep house in the same modest fashion that is customary among members of the faculty here and at Ames. My prospects are good and I think we will get along well together.

I have recently returned from my long journey to Asia and Europe. I think it is now time to settle down and have a home.

Hoping for your consent to our engagement, I remain,

Yours Truly, N. E. Hansen

As expected, everyone favored the marriage. His future sisterin-law, Augusta ("Gussie") Pammel, who along with her husband Louis had observed the Iowa romance, wrote to Niels,

Emma informed me last week of her engagement to you, which pleased me very much. Allow me to tender my heartfelt congratulations.

I very much desire to see you and Emma together. How happy you must be, after waiting so long, then to win the prize at last. Please accept my best wishes for your future welfare.

Sincerely,

# A. E. Pammel

With the engagement settled, the happy couple began to plan their wedding. Emma finished her school year at Wahpeton, and went home to La Crosse to work on her trousseau. In those days, brides-to-be sewed clothes and linens for the home. Emma and Niels continued to correspond over the summer. As indicated in the following portion of a letter from Emma, their love was growing deeper.

You wrote me such a nice long letter Sunday, write me just such a one again this evening. Tell me, my dear, that you love me. How I long for the letters that tell me you think of me. I could write my whole letters full of words that show how deep my love for you is, and still I can't express myself as clearly as I would like to express myself to tell you that I love you. I will be so glad when I can visit with you again. I am sorry it can't be a long stay, but my darling, next time you come after this it will be to take me with you.

Niels wrote to Emma shortly before their wedding:

How I look forward with pleasant anticipation to next winter when we will be "at home" together. We can read some good books together and write that love poem together that you mentioned in one of your letters recently. It will be a happy home because we love one another with all our heart.

My darling, in three weeks from Wednesday we will be man and wife. Write very soon, my darling. With a kiss from you faithful lover,  $\mathcal{N}iels$ .

Emma told Niels in November about a week before their wedding:

Yes, dear, we can begin to count the hours very soon. Since I wrote your letter yesterday twenty-four hours have passed. I too hope that we will have a bright and beautiful day for our wedding day. I think it is so disagreeable to have rainy weather on one's wedding. It makes me feel dreary instead of happy, as one ought to feel. But, my darling, when you are with me everything is sunshine no matter how dreary the weather is out of doors.

My darling, tomorrow I hope to get another letter of you as you said you would write each day to me and you know I am going to do the same. Thursday

morning I will write the last letter for then you will get it before leaving Brookings.

My darling how I love you and only so few days now, and then we can say we are "one."

Now I bid you goodbye. Write soon to your devoted sweetheart. With a kiss from your darling  $\mathcal{E}_{mma}$ 

#### **Emma Marries Niels**

Shortly after college closed for the winter, Emma and Niels were married in La Crosse, Wisconsin, on Wednesday, November 16, 1898, a day before Emma's twenty-fourth birthday. The local newspaper carried a story on the ceremony,

There was a pretty home wedding last evening at the residence of Mr. And Mrs. Louis Pammel, 1218 Madison Street, where their daughter, Miss Emma Pammel, was united in marriage to Mr. Niels Hansen, of Brookings, South Dakota.

The house was beautifully decorated with cut flowers, potted plants and trailing vines. The bridal couple, proceeded by the flower girls, the Misses Doris Marie Pammel and Emma Dorothy Koch, entered the room to the strains of Lohengrin, Miss Eva Bennett presiding at the piano, and took their stand in an alcove drooped with smilax and banked with palms and ferns. Suspended over their heads was a horseshoe composed of bride's roses. Jardinières of chrysanthemums were placed in other portions of the room. The ceremony was performed by the Rev. Tabert, pastor of the English Lutheran church.

After a short time devoted to congratulations, the company was invited out to refreshments, which were elaborate. The dining room was devoted to the bridal party and relatives. The table was handsome with cut glass and silver. The floral decorations were white and green, the principal flowers being bride's roses.

In an adjoining room small tables were spread which were brilliant with a profusion of red roses. The balusters were festooned with garlands of evergreens.

The bride was gowned in a handsome white silk, made en train, trimmed with lace and ribbon. Her traveling gown was of blue cloth, trimmed with black braid, with a vest of corded red silk.

The mother of the bride wore a handsome toilet of black silk. Mrs. G. J. Pammel wore a black silk with black chiffon, and an amethyst necklace. Mrs. L. H. Pammel, white silk with pearl passementerie and lace, diamond ornaments. Mrs. Herman Pammel, white grosgrain silk, with lace and pearl. Miss Dora Pammel, lavender silk, with velvet trim-ming of a darker shade. Mrs. Koch wore a handsome black satin gown trimmed with lace.

There were a large number of handsome presents from their friends in the city and other places. Conspicuous among them was a beautiful parlor set from the parents of the bride.

Mr. and Mrs. Hansen left last evening for an extended eastern tour, after which they will return to Brookings, which will be their future home.

Tomorrow afternoon there will be an informal reception from 3 to 6 o'clock for the out of town guests.

Those present at the wedding were Mr. and Mrs. Louis Pammel, Mr. And Mrs. J. G. Pammel of Milwaukee, Mr. and Mrs. L. H. Pammel of Ames, Iowa; Miss Dora Pammel, Mrs. Otillie, Messrs. and Mesdames Baenzinger, L. Koch, the Misses Dora Hellfack, Josie Hensler, Bertha Schintgen, Flora Guenther, Louisa Michel, Eva Bennett, the Rev. Tabert, Messrs. P. Schintgen and Bruno Guenther. The young ladies who assisted in serving were the Misses Linda Rose Luening, Kiene, Theo Gunther, Hulda Ulrich and Eleanore Funk.

Missing from the description of Emma's wedding apparel was the mention that she wore her mother's handmade lace wedding veil from 1856. The veil has been handed down to the family and worn by two of her granddaughters, Laura Searls and Helen Loen, as well as by one great-granddaughter, Margo Begy.

# **Emma and Niels in Brookings**

Emma and Niels began their life together at 720 6th Avenue, a home that Niels had purchased in October for \$1200. It was conveniently located within walking distance of both the downtown and the college east of town.

Brookings, a small village of about 2400 people, was named after W. W. Brookings, an early Dakota settler. Only seventeen years old, the town was located on the flat, treeless prairie with few amenities. Early photographs of the town look like a Hollywood set from a western movie. Streets were unpaved and muddy. Main Street had an elevated boardwalk. Hitching rails abounded along Main Street in front of the nearly seventy businesses.

After the Spanish American War ended in 1899, the city began an era of prosperity. Brick structures began to replace wooden buildings. Sewers were installed; telephone and electric light poles began to go up. A single light hung over the middle of the unpaved streets and provided illumination in each block.

Niels and Emma joined in the social life of Brookings. They may have gone to see Theodore Roosevelt, the running mate of William McKinley, when he campaigned during the election of 1900. Emma, influenced by attendance at the Episcopalian church her brother had helped found in Ames, joined St. Paul's Episcopalian church. Niels participated regularly at the required chapel services held for faculty and students. Each day opened with a reading from Scripture, without comment, followed by a short prayer.

Apparently Niels had overcome his collegiate misgivings concerning secret societies, for he had joined a Masonic lodge in the same month he left for the long journey to Russia. Later he became a member of two Greek societies, Phi Kappa Phi, a fratern-ity that honors seniors in college who have excelled

academic-ally, and Gamma Sigma Delta, the national honor society for agriculture.

As his wife, Emma became a member of the Order of the Eastern Star. She joined the Shakespeare Club and was secretary of the Woman's Club. Niels was secretary of the State Horticultural Society and a charter member of the Society for Horticultural Science. As a member of the social affairs committee at State College, he introduced a Scandinavian tradition, the Maypole dance, which was a part of the May Day celebration at the college for many years.

In addition to their social life, Emma and Niels were planning for the future. In April of 1904 they purchased about two acres of land near the campus for \$550. It became known as the N. E. Hansen addition. They probably intended to build a home on this property and sell lots for future building.

Niels and Emma attended faculty social events including the balls where they had a reputation as elegant dancers. One grand-daughter, Jane Gilkerson Cheever, was once stopped on the street by an elderly resident of Brookings and told how this woman remembered Emma and how elegantly she was dressed at the faculty balls that the public was allowed to watch. "I can remember that I could hardly wait to see what Mrs. Hansen would be wearing," the old woman recalled.

This comment reflected Emma's reputation as a woman of high fashion. Gladys Hansen, wife of son Carl, was told that, "If plumes were in, Emma would have the biggest plume!"

Granddaughters can remember playing "dress up" in her clothes which her daughter, Eva, stored in the attic of her home in Armour, SD. Their remembrances of elegant silk gowns with lots of lace affirm the stories that Emma was a fashionable Victorian lady.

# **New Opportunities for Niels**

Two years after their marriage, an opportunity came to move to Niels' alma mater, Iowa State College. This was not the first time he had been approached to return to Iowa. When his mentor J. L. Budd had resigned in 1898, two newspapers in Ames, The Ames Intelligencer and the State Register, had recommended

that Niels succeed Budd. They cited his capabilities and education, but Niels, newly married, was not interested.

Now a new situation had developed. A faculty position had opened up and some at Ames indicated they wanted Niels to apply for the position; however, Niels would not even consider it as he noted in a letter to his brother-in-law, Louis Pammel:

I wish people at Ames would get over the notion that I am desirous of going to Ames in case friend Schulte concludes not to accept. I am well situated here and my experiments in plant breeding, that is, with the native northwestern fruits, are by far the most extensive, as far as I know, of any on this continent. I now have over 27,000 seedlings of wild northwestern fruits on the grounds here that I have raised. I desire to be known chiefly as a plant-breeder because there is more need of that in the Northwest than anything else.

It is certainly vastly more important than testing onions, cucumbers, tomatoes, etc., a work which every market gardener does for himself much better than any Experiment Station can do for him.

I have never made application for the place at Ames nor do I ever intend to. Professor Budd has told me many times that he considered me better fitted than any other of his students to take up the work at Ames. But I am rather inclined to think that with the present Board his wishes are rather more of a hindrance than a help to attainment of what he desires to have done. I sincerely believe that his work is of lasting value, and will be gratefully remembered long after the present generation has passed away.

A chance to move to Washington D. C. was similarly rebuffed by Niels about a year later. He again wrote to his brother-in-law regarding his reasons for staying in South Dakota:

I have an idea that these Washington places are too much clerical in their nature and that not enough scope is given for independent work. The results of five years experimentation are just now beginning to show up here and it strikes me it would be giving away the fruits of earnest labor in Northwestern plant-breeding.

If the new place carried with it the directorship of all the hardy fruit-breeding work of the U. S. it might put a different light on the subject, but to be only a sort of scientific clerk at Washington would not at all be to my liking.

An added incentive to Niels was the appropriation from the legislature of \$10,000 for a plant breeding building that would house the departments of Horticulture and Botany. Built in 1901 in the Italian Villa style, the building was a wooden structure with a red brick veneer. It was the sixth building constructed on the campus.

#### **Niels commented further:**

So you see we will have better facilities than ever and I expect to have some results to show ere long that will open the eyes of some lowa men I know.

Two years later, Niels fought off his brother-in-law on yet another attempt to get him to come to Ames. He wrote a brief note to Louis, "Please don't conduct an Ames campaign for me."

A longer letter followed which was less blunt, and explained Niels' reasons for staying in Brookings.

I greatly appreciate your kind efforts in my behalf, but really do not deem it wise at the present time.

Our relationship would cause people generally to discount your efforts and my experiments here have come to such a stage that some remarkable hybrids (of sand cherry, etc.) have apparently been produced by special methods (of crossing under glass, etc.) If I leave this, the credit will be lost, also the work.

I fancy Farrell will be after the place very hard. I would have no assurance of Curtis' position in the matter nor of certain nurserymen. Here I am free from the whole aggregation and turning out new

fruits by the wholesale. I am doing probably 50 times more breeding of fruits than any other experiment station and much of it along new lines.

It takes years to make a showing and I cannot take away with me the results of the work here up to date. In three or four years I might be able to do so.

For you to make efforts now would only prejudice certain people against you and all to no purpose. Of course, the compliment of an election would be appreciated. Of course, also certain events might transpire to change matters. I am working for a national reputation now and will have it, too, if my new fruits turn out as I hope they will.

Please don't use postal cards next time on such important matters.

Niels received a singular honor in 1904 when he was selected to be a member of the International Jury of Horticulture at the World's Fair in St. Louis. This opportunity gave further evidence of his growing reputation.

# **Joy and Sorrow**

Ten months after they were married, Emma gave birth to daughter Eva Pammel on September 14, 1899. Within three and a half years, Carl Andreas was born on January 23, 1903, the same year the Wright brothers flew their first airplane.

Both Niels and Emma seemed to take pride in their growing family.

They wrote occasional notes to Emma's brother Louis regarding the progress of their first-born. Niels added a comment to a letter dated October 31, 1900, "Baby is lively and getting fat. We must weigh her soon." Emma chimed in: "I wish you might see our little daughter. She reminds me so much of Lois [Louis' daugh-ter] when she was that age." A few months later Emma reported:

Little Eva walks all over the house and gets into more mischief all the time. I can fully realize what a time Gussie used to have running after several.

In November of 1903 Niels wrote, "We are all well. Baby cut his fourth tooth today."

When Carl was about a year and a half, Emma and Niels learned to their great joy that a third child was on the way. Their dream had always been to have a large family. Niels may have envied his sister Kristine with her brood of nine. Emma's sister Mathilda had five children, brother Louis had six, and her mother had borne nine. They had every reason to believe their family would be large.

In her sixth month Emma began to suffer extreme pain in her right side. The doctor diagnosed appendicitis but would not operate on a pregnant woman. Desperate, Niels contacted Mayo Clinic and a doctor there agreed to come. Tragically, he was held up in a blizzard near Mankato, Minnesota, and did not arrive in time. Emma's appendix ruptured and peritonitis set in.

The appendicitis attack occurred on Monday. The two sweethearts, who had so joyously started their life together just six short years before, now faced the inevitable. Niels sent word to the family that Emma was dying. Three of Emma's family, her mother, sister Dora and brother Herman, came as soon as they could from La Crosse. Brother Louis arrived from Ames. Her father, sister Mathilda and brother Gustav remained in Wisconsin. Kristine with a new baby in far away Canada and Helene in Chicago could not come.

At some point, Emma and Niels took Holy Communion together and the children were brought in to say good-bye. In his funeral sermon, Dr. James Chandler, president of the college, referred to

the last sacrament which she took with her husband from her minister, after which she kissed her husband and children and gently fell asleep. It was a hallowed time, the last kiss of a loving wife and mother; the last sacrament of her church; the last on earth and the first of Heaven.

Eva, five years old, remembered smelling wine. She recalled that she kissed her mother while all of the adults in her life were crying, but she did not know why. Carl, nearly two, did not recall the event in later years. Emma lingered until Friday when she died at three o'clock in the morning on December 16, 1904. The family had to wait in agony until the unborn child was declared dead. Just six years and one month after her wedding day, at thirty years of age, Emma was gone. The hopes and dreams of the two lovers perished with her.

With the family assembled, it was decided to hold the funeral on Sunday. Niels sent out funeral notices, small printed notes giving the time and place for the services. In the small town word quickly spread about the tragic death of Emma. People were shocked at the death of one so young and vibrant, and felt deep sympathy for Niels whose family life had suddenly been shattered.

Exhausted by the five-day vigil at Emma's side, Niels could scarcely make the more practical and heart-wrenching decisions.

It was decided to bury Emma in her wedding dress. Niels had to purchase a burial plot in Greenwood Cemetery south of town.

The funeral service had to be moved from their home church. So many people, including the faculty of the college and members of her clubs, had indicated they would attend the funeral that Niels realized the crowd would be too large for St. Paul's small sanctuary. Arrangements were quickly made with the Presbyterian Church in order to accommodate the crowd.

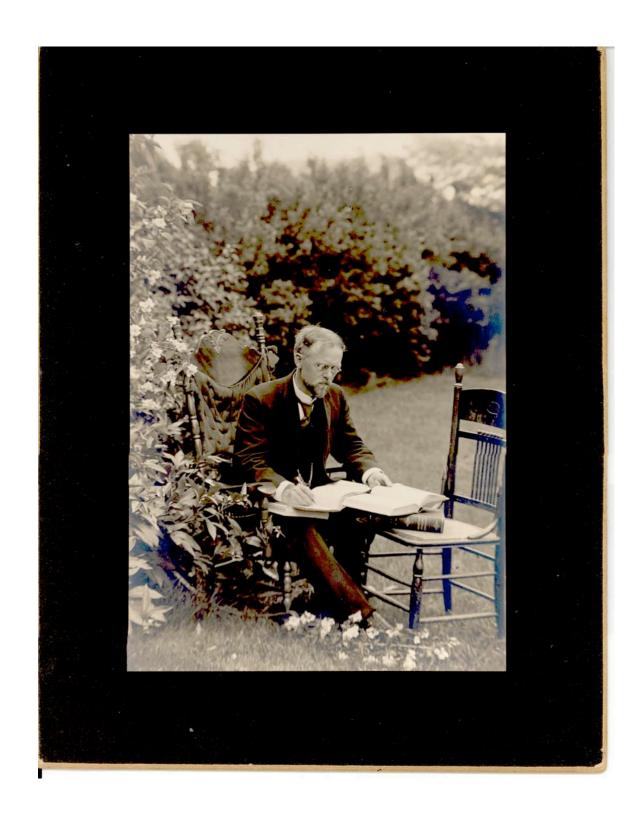
As was the custom of the day, Emma's body was prepared at a funeral home and then returned to her home prior to the funeral. She lay in state in the front room until the next day when the horse-drawn hearse returned to carry her to the church.

In spite of inclement weather, the expected large group attended the service. Members of the Eastern Star and the Woman's Club came in a body. The church was filled with flowers, even in December. One obituary stated, "The floral offerings of her friends and the societies to which she belonged, and of the College faculty, were beautiful and testified to the abundance of love and esteem in which the deceased was held."

Dr. James Chalmers, president of the college, preached the sermon that spoke of Emma as the "White Lily," an endearment used by Niels. Dr. Chalmers said the "White Lily" had now been transplanted from Earth to the beautiful Garden of Eden.

Her death only nine days before Christmas put a pall over the holidays. Some semblance of festivity was probably maintained for the children, but grief impacted all their activities.

Christmas would never be the same.



# **NIELS ALONE**

## 1905

# "Extremely quiet here."

### **Niels to brother-in-law Louis Pammel**

Overwhelmed with the anguish and heartache of Emma's death, Niels faced the bitter prospect of life without her. Added to his misery was the inescapable decision that the children would have to move to La Crosse and live with his in-laws.

Although Dora and Elna Schultz, wife of Niels' cousin Jeppe, had stayed on after the funeral to care for the children, by summer the family came to the conclusion that a more permanent solution for childcare had to be found.

The decision to relocate the children in La Crosse was an expedient, if heart-wrenching, decision. Niels had no means to hire a housekeeper to care for them. Emma's parents, Louis and Sophie Pammel, who had retired from their farm and built a house on Madison Street in La Crosse, possessed ample resources to care for the two grandchildren. Dora, who at age 35 had been living at home, could easily provide the necessary supervision. Niels visited his children whenever circumstances and time allowed.

Eva, just five years old, and Carl, who turned two years old

a month after his mother's death, must have been confused by the decisions being made on their behalf. They had to leave their home and probably felt as though they had lost both mother and father. There is a family story that Eva and Carl invented their own language that they used for a time in their new surroundings. Perhaps this intimate means of communication helped them cope with their emotional upheaval.

Shortly after Emma's death, Niels received the sad news of the death of his mentor, Professor J. L. Budd, who had been such an inspiration to Niels when he was a student at Ames. In a strange coincidence Professor Budd had died on the same day as Emma. Niels would find, in spite of this loss, that the work begun in his student years under his friend and advisor would be now a source of solace.

Of immediate concern was a short six weeks course in agriculture that Niels taught from January to mid-February. In addition he taught at various Farmers Institutes across the state. These programs, which attracted hundreds of participants, were designed to offer opportunities for rural residents to meet and talk over problems as well as receive instruction on farming practices. No doubt Niels used these institutes as a vehicle to encourage farmers to use his new products.

Required horticultural reports and bulletins flowed from his pen. He also managed the small mail order business that the Experiment Station had established. The Station issued a bulletin in February which described "Surplus Experimental Plants for Spring 1905." The Station offered ornamental shrubs, willow trees, and hardy fruits including a sand cherry, plums, and strawberries but disclaimed any retailing intent:

This department does not run a commercial nursery. Novelties of promise are introduced from time to time; they are either originated here as a result of plant-breeding experiments or imported from Russia, Siberia and other parts of Europe and Asia.

The income from the sales help pay the expense of propagation, the heavy expenses of many importations and to extend the work of fruit breeding more than would otherwise be possible. The work now underway at this Station in breeding hardy fruits is second in extent only to that of Luther Burbank of California.

Niels explained in a letter to his brother-in-law, Louis Pammel, that he sold enough plants to help pay the costs of the extra day laborers employed by the Station. During the summer he was

involved with over three acres of seedling strawberry and raspberry plants. At one point he had at least a ten-man work force.

In the spring and summer Niels was engaged in designing and planting a garden for the new brick depot in Brookings built by the Chicago North Western Railway. The park, located north of the depot and south of the Masonic Hall, became known as City Park. Niels and his workers planted grass, trees, and ornamental shrubs; walks and a drinking fountain added to the charm. An iron fence encircled the pleasant area which the local newspaper extolled, "will be a good advertisement to the city as well as a beauty spot."

All of these activities kept Niels busy, but he seemed restless. He kept traveling. In August he mentioned to Louis that he planned to attend the American Pomological Society meeting in Kansas City. Following that meeting he intended to travel to see Luther Burbank in California. In this message he also revealed how lonesome he was. "I look very longingly to my visit to Carl and Eva." Then he added wistfully, "extremely quiet here."

## A Visit With Burbank

Niels described this meeting with Burbank in the Third Annual Report of the South Dakota Horticultural Society. He applauded Burbank's work and seemed impressed with the activity in the gardens that Burbank maintained.

I had the pleasure of visiting the plant-breeding establishment of Luther Burbank at Santa Rosa, California, August 26, 1905. For a number of years I had looked forward to this pleasure, my desire being to learn more of the methods of this master worker with plant life. I was cordially received and in the course of three hours learned much of interest.

He praised the accomplishments of the renowned scientist.

Non-technical space writers and clever journalists have overdone the matter of writing up Mr. Burbank's establish-ment, but that is not his fault. In

newspaper work the first essential is to make the subject interesting.

On the other hand, some of our scientific workers are in danger of criticizing too much. Before they criticize any more, they should visit Mr. Burbank and also produce one single seedling from their own work that in a measure approximates the remarkable achievements of this California plant breeder.

Niels went on to express concern for Burbank's health.

Mr. Burbank is absolutely sincere in all his work. The only thing to be feared is that his health will not hold out under the terrific strain of working with such immense number of species. Some twenty-five hundred species of plants have received attention in his gardens.

The excess of notoriety given him by the newspaper writers has in one way hurt his work as he has trouble in keeping the thousands of visitors from taking all his time, many of whom come only from curiosity. Mr. Burbank's extreme conscientiousness is seen from the fact that he attempts to answer all the many thousands of letters that come from all parts of the world. Mr. Burbank, for his own health's sake, should unload more work on his helpers and not try to do so much himself.

He related in detail the methods used by Burbank, and concluded:

Mr. Luther Burbank is earnestly endeavoring to produce better flowers and fruits for the public good. Mr. Burbank's courage and persistence in bringing plants together from all parts of the world, and making so many new combinations, is to be commended as it has upset some old ideas as to the relationship of species, and plant-breeders are less hampered by the restrictions of systematists.

Plant-breeders now look upon a species as a more or less definite bundle of characteristics, all capable of great modifications.

Burbank of the Plains

Niels became known as the "Burbank of the Plains" in later years. The comparison no doubt enhanced Niels' image in the public eye and was a valid assessment of his career as a plant breeder. Burbank and Niels had a common goal—to increase the world's food supply.

A leading lawyer of the state, C. O. Bailey of Sioux Falls, compared the two men in an address to the South Dakota State Horticultural Society called, "What South Dakota Needs." He said, in part:

Already a vast amount of extraordinarily good work has been done at the State College under the direction of Professor N. E. Hansen, and most astounding results have been obtained as a result of Professor Hansen's experiments.

These experiments have been along the same lines as those conducted by Luther Burbank in California, although the work of Professor Hansen has not, in any manner, been in imitation of that of Burbank. Both have been working in the same field and by the same methods, and both have obtained, independently of each other, the most remarkable results.

The only differences have been, that while in California Luther Burbank has enjoyed an ideal climate in which to conduct his experiments and has been given by the State and by private contribution an unlimited amount of money with which to work, Professor Hansen has been, from the very outset, handicapped to the last degree by scanty and wholly insufficient appropriations and by an almost total lack of room and facilities for the conduct of his experiments.

Men like Luther Burbank and Professor Hansen are of the utmost scarcity and in the entire world there does not exist a dozen men who can be considered as their peers in the work to which they have devoted their lives.

South Dakota is most fortunate in the fact that Professor Hansen is connected with the State College and in the fact that he has been so much interested in his work in South Dakota, that he has declined opportunities to go to other places where his abilities would be far better recognized, both by compensation and by what he himself would esteem of greater value—facilities for carrying on his experiments.

The two prolific scientists produced many new plants, with over 800 fruits, vegetables, and ornamental flowers credited to Burbank. During his nearly fifty years of experimentation, Niels developed over 350 plants, including fruits, shrubs, flowers and forage.

These men of science shared a common trait. One writer stated that Burbank "demonstrated an ability for extremely keen observation, and immediate recognition of desirable characteristics which enabled him to select useful varieties." In a similar fashion, Niels was known to examine hundreds of plants in a single day to decide which plants to keep.

Both men crossbred native and foreign plants. Burbank focused on varieties needed for warmer climates. He imported plants for experimentation without leaving California. Niels concentrated on species for the Northwestern plains and personally traveled thousands of miles to find and bring them back.

Burbank began plant breeding with the development of the Burbank potato that was introduced in 1871 and sent to Ireland to help combat the blight epidemic. He sold the rights to the potato for travel fare to California where he established a nursery business, a greenhouse, and experimental farms.

With little more than a high school education, Burbank, according to most biographers, depended more on a sense of intuition than on strict scientific methodology. Journalists publicized his plant introductions and kept a spotlight of fame on Burbank who was recognized as a master plant breeder.

When Burbank became a controversial figure in 1926, perhaps the comparison to this esteemed horticulturist was not so flattering. A free-thinker, Burbank was incensed about the Scopes trial held the year before which cast doubt on evolution that he had been teaching and practicing for many years. He declared: "Those who would legislate against the teaching of evolution should also legislate against gravity, electricity and the unreasonable velocity of light."

He railed against the prejudice of those he felt were against finding the truth. "There is no use now talking evolution to these people. Their ears are stuffed with Genesis." These remarks, which were in keeping with many of the scientific community, did not seem to tarnish his reputation.

However, it was an interview with the San Francisco Bulletin that brought down public vilification as he expressed his doubts about an afterlife. In referring to immortality and resurrection, he declared, "I am an infidel."

The general public, which believed him to be this gentle, quiet man, felt betrayed and outraged with his statement. For this denunciation of the Christian faith he was reprimanded in the press and pulpit. The article, which was published around the world, created a firestorm of condemnation. One writer has suggested that the outburst of censure may have contributed to Burbank's death as he became exhausted trying to personally answer the flood of critical letters that inundated his office.

Niels did not find science and religion incompatible. During a chapel talk at the college he referred to one of his trips with these words: "I believe I was doing the Lord's work."

Although he did not attend church regularly, Niels was a pious man. He believed what his father Andreas once wrote him: "You have chosen a wonderful road for your life, God's great creation. I know, dear Neils, that you will be happy exploring God's nature."

#### A New Adventure

On the first anniversary of Emma's death, Niels sought distraction from this event by trips to Kansas and Missouri where he presented papers on plant breeding to their horticultural societies. His old friend, James "Tama" Wilson, United States Secretary of Agriculture, had earlier offered him another type of distraction.

At the South Dakota State Fair held in Huron that September, Wilson, who was the invited speaker to this statewide event,

startled the audience and Niels with the announcement that Niels would be going on another trip to Russia for further explorations for alfalfa.

The offer of a new assignment in the form of a public announcement came as a shock to Niels who was sitting near the speaker. He apparently had no previous knowledge of what Secretary Wilson had in mind. Thoughts of his present obligations must have swirled through his head. His fruit experiments were occupying him almost full-time. He was no longer a thirty-two year old bachelor, but a forty-year old man, head of a department, with two children to support. If he had any misgivings he kept them to himself.

Others expressed their reservations as to the wisdom of this new adventure. Friends wondered how he could again risk his life, but Niels replied with a quotable, noble explanation:

Life is a great venture if you keep your courage fresh and growing. Exploring for plants is a hazardous, interesting, exciting venture that I enjoy. I have no fear. I am glad to go. I can and must find a still hardier alfalfa for our state. Dakota's needs must be supplied.

He may have had a more personal reason. Perhaps he thought it would help him through his grief. Since Emma's death nine months earlier, he may have found that life held little meaning. This opportunity might give him a reason to go on. People who were close to him understood he might feel that on the windswept steppes of Siberia he could find solace in the solitude and isolation of a land so far from his sorrow.

### AROUND THE WORLD

### 1906

"He has done more important original work in horticulture than any man out West except Burbank."

James Wilson, Secretary of Agriculture

Although the Secretary of Agriculture had authorized the trip in the fall of 1905, it was not until the following summer that Niels began his journey, which would literally take him around the world. The trip would tie into the International Congress of Genetics in London, to which he was a delegate for the United States. He reported to the South Dakota State Horticultural Society at the end of the year:

The journey around the world for the United States Department of Agriculture began June 28, 1906. The following is a letter written for the <u>Dakota Farmer</u>, Aberdeen, South Dakota, and published in that paper August 1, 1906.

"Yesterday, July 13<sup>th</sup>, I finished my week's lectures before the Graduate School of Agriculture at the State University at Urbana, III. This school has been attended by about one hundred students from twenty-two different states. The most of them are connected with the various agricultural colleges and experiment stations.

"The plant breeding lectures the first week were delivered by W. J. Webber, chief of the extensive plant-breeding work done by the United States Department of Agriculture, Washington, D. C. The second week was assigned to the present writer, who discussed the subject from the standpoint of an agricultural explorer in Europe and Asia and also told

of the work in breeding fruits at the South Dakota Experiment Station.

"Tonight I start for Washington, D. C. and expect to be in London by the last of July to attend the International Conference of Plant Breeding under the auspices of the Royal Horticultural Society, July 30th to August 3d.

From there the route, as planned at present, is experiment stations in northern Norway and Sweden, especially one very near the Arctic Circle, and from there southeast through Finland to St. Petersburg. The route from there will depend on political conditions in Russia. If reasonably quiet, the trip will still be expanded in Siberia and Central Asia. The return trip will probably be through Germany.

"The entire trip will take about two and one-half or three months and perhaps longer if internal conditions in Russia will permit of the trip under government protection. I hope to be able to do something toward solving some important agricultural and horticultural questions and to bring back valuable seeds and plants for the prairie Northwest.

"This trip is carrying out the intentions expressed by the Honorable Secretary of Agriculture, James Wilson, in his address before the South Dakota State Fair in September 1905, to send me to gather seeds from northern Europe and Asia for trial in the Northwest and other regions of the United States. This will be my third trip to Russia."

Ten days later he wrote again to the Dakota Farmer:

"London, England, August 11, 1906

"To Dakota Farmer:

"I have had a very busy time since arriving in Europe. I have finished my work in England as far as possible at this time, and leave tonight for the continent.

It was a great privilege to attend the International Conference of Hybridizing and Cross-Breeding, and some remarkable advances have been recorded since the last International Conference in New York four years ago which I also had the honor of attending. Some three years before that time, the present series of Conferences of Plant Improvers was begun in London by the Royal Horticultural Society.

"In my paper on Breeding Cold Resistant Fruits, I tried to illustrate the point that it is possible to transmit resistance to cold by hybridizing hardy with tender species of plants, and told of the work in this line in South Dakota.

"The Royal Horticultural Society has indeed shown royal hospitality to all foreign delegates, and the seat of honor at the great banquet was given to the representative, Professor N. E. Hansen, from the United States."

Niels also expressed his opinion to the general assembly. He was concerned about patents or copyrights for original plant breeding. He noted in an unpublished commentary:

At the fifth session of the International conference on Plant Hybridization in London, July 1906, the question of copyright was discussed. The need was quite plain of a patent or copyright to protect the originator of new varieties of fruits and ornamentals.

I said: "I believe, in law, a seedling is regarded as the gift of God, and it would be hard to patent that; but could we not hope to have some law fashioned which would give a bonus to the man who does such skilled and valuable work as that which has come before us over and over again during the sessions of this conference?"

He added in pencil at a later date: In recent years a plant patent law has been passed by Congress and is now in operation. (1930)

## **Russian Turmoil**

When Secretary Wilson suggested the third trip to Russia, Niels was one of the few people who knew anything about this vast

territory of over three million square miles. Looking at a map, some people could recognize the huge Siberian landmass which was bigger than the United States and Europe together and which ran 4,350 miles east of the Ural Mountains. But to many people it was a place of mystery.

Many Americans did, however, know something about Russia. What they knew they didn't like. During the Russo-Japanese war, fought in 1904-1905 over competing influences in the Far East, Americans sided with the Japanese. The struggle between the Japanese underdog and the Russian giant became a popular feature in American entertainment and served to further taint the image of Imperialist Russia for a public already incensed by stories of Siberian exile or exploitation of a peasantry that had only recently been serfs.

During the war, Czar Nicholas II experienced a series of defeats which weakened his government and he was faced with a growing reform movement which culminated in Russia's first revolution in January 1905 on "Bloody Sunday," described by some historians as a "dress rehearsal" for the revolution which broke out in 1917.

On that Sunday, a large group of dissatisfied unarmed workers, led by a priest, marched into Palace Square in St. Petersburg and were mercilessly massacred by the police force. A tide of strikes and protests followed this event, and the Czar was forced to make concessions to reformers who demanded a constitution.

Nicholas agreed to a parliament with limited consultative power called the State Duma. After the war he attempted to reverse the reforms by ever increasing repressive measures. These actions led to more discontent, and reformers began to gain political strength.

## Niels' Journey

Niels first went north of the Arctic Circle in Norway, Sweden and Finland where he obtained seeds of a red clover growing in the harsh climate. With instructions to go on to Siberia if he thought conditions in Russia would permit, Niels decided to take some risks and headed for the capital, St. Petersburg, where he could receive permission to travel.

In Russia he encountered several tense situations. Revolutionists in one city shot twenty-two policemen. One feature writer mentioned that Niels had to dodge bullets while digging apple seedlings near Moscow.

Then he hurried on to Omsk, where he learned that revolutionists had set fire to government buildings and shot the officials who fled from the inferno. He avoided walking on the streets and as quickly as possible embarked on the Trans-Siberian railroad that was now finished to Vladivostok.

He by-passed Semipalatinsk and Kopal, where he felt sure he had found the northern limits of hardy blue-flowered alfalfa called Turkestan. His destination was the region around Irkutsk near Lake Baikal, where he hoped to find the northern limits of another wild alfalfa, yellow-flowered. According to a letter he wrote Emma in 1897, Niels had considered visiting Irkutsk on his earlier trip, but ill health and the fierce winter had prevented him from journeying that far.

Irkutsk was the capitol of Eastern Siberia, with roots back to 1630 when it was a trading post. Under the czars, many exiles - nobles who had lost favor in the court at St. Petersburg - brought their wives and families to live in relative comfort in their fine homes. Discovery of gold in the 1800's led to the building of many fine homes and stately churches. Art and culture was encouraged; libraries, hospitals, and a college were built. Today it is a thriving industrial city of over 650,000.

Near Irkutsk Niels learned that the plant he sought - yellowflowered alfalfa - could be found as far north as the Don River region. This proved alfalfa could grow in harsh, near-polar conditions. It was a wild alfalfa, a forage of great feeding value on which the natives fattened their herds, but which they did not cultivate.

Niels was excited! As he explained in an interview with writer William Kirkwood:

Where the blue-flowered alfalfa stops, three yellowflowered species are found, extending from one thousand to two thousand miles, northward, and clear across Siberia. As these species grow freely in dry districts, they point to the expansion of the alfalfa belt on this continent (North America) from Nebraska northward as far as men will care to farm-even to the Hudson Bay district.

Niels found the yellow-flowered alfalfa in a load of wild alfalfa hay in a market in Irkutsk. He bought the wagonload from the owners, Mongolian Buriats, and hired some market idlers to pick out the seed by hand. He told one writer that a little coin of the realm, of which he always carried a supply, proved a sufficient "discourager of hesitancy."

He wrote triumphantly to Secretary Wilson:

My Dear Sir,

I have the very great pleasure and honor to inform you I have finally captured the plant, whose existence I suspected nine years ago, namely: A SIBERIAN ALFALFA, with yellow flowers instead of blue, native on dry steppes and where mercury sometimes freezes without snow, an excellent forage plant.

This Siberian alfalfa I think marks the epoch in northern prairie agriculture and I feel immensely pleased that the plant comes to America during your administration.

This trip is not a Sunday School picnic, which fact I knew perfectly well before I started. But I expect to get back home safe and sound. The experience of my first two trips to Russia have aided me greatly.

He planned to take the seeds home to grow and cross with cultivated strains. This was a major find and one that would lead to much acclaim. He shipped a quantity of seed to Washington, and in spite of the unrest in the country, the seed arrived safely.

## A New Variety of Alfalfa

But the most important breakthrough for Niels was the discovery of a new variety of alfalfa! Nature had produced the new plant by cross-pollinating the blue and yellow-flowered alfalfa. He found two plants which were a perfect cross. These two plants yielded a half-teaspoon of seed. Niels wrapped the seeds in paper, put them in his pocket, and carefully husbanded

the precious parcel all the way home. This he knew would be a winner!

He would later often comment in a more romantic fashion, that he found the perfect alfalfa "where the blue-flowered alfalfa hesitates to continue into the greater cold and the yellowflowered alfalfa begins its march to the North Pole."

Because of the political unrest and dangerous armed militants, Niels decided not to return to European Russia, but to head east on the Trans-Siberian Railroad to the Pacific Ocean. Traveling through Eastern Siberia that had no major cities where he could cash his line of credit, Niels almost ran out of money.

He subsisted on tea and black bread until he reached Vladivostok, the Russian name for "Lord of the East."

Vladivostok was not a safe haven. The military were expecting outbreaks of the revolution. Niels told his biographer that he "crossed the square where soldiers were on one side, revolutionists on the other, and the feeling was very tense."

But he also received a pleasant surprise. Luggage that had been stolen on the trip from Omsk to Irkutsk showed up. He never expected to see it again. He concluded that an American grip and a Russian man didn't match so when an officer saw the combination, he seized the grip and sent it on to Vladivostok.

Niels finished his journey by sea to Honolulu and then to California. The Daily News of San Francisco, December 3, 1906, had a small front-page article describing his return. The attention of a major newspaper must have been a boost to Niels' morale and ego.

M. E. Hansen, [sic] agricultural explorer for the United States, arrived this morning on the <u>China</u>. Prof. Hansen was sent to discover plants to be raised in cold climates. Hansen in his search traveled through Lapland, Siberia and Russia and brings back numerous plants and seed. Hansen says his trip has been a successful one. This was the professor's third trip through Russia. He introduced the Turkestan alfalfa in 1897.

A companion article described the arrival of the <u>China</u>, a Pacific mail liner, which "had an uneventful, stormy passage, her time being 271 hours." (About 11 days.)

Niels did not mention the devastation of the April 18 earthquake, which still must have been visible. The earthquake and subse-quent fire, which had swept over the city for three days, killed more than 3,000 people, and destroyed thousands of buildings, including homes of three-quarters of the city's population. People were no doubt still living in tents when Niels saw the damaged city.

Triumphantly he returned to Washington D.C. in December after a six month expedition, which he referred to as circumpolar exploration, and reported his discoveries. A hardy clover that he had found on his way through Finland and Lapland and a totally new alfalfa plant! He would eventually name it "Cossack."

Feats such as this no doubt led Secretary Wilson to comment, "He has done more important original work in horticulture than any man out West except Burbank."



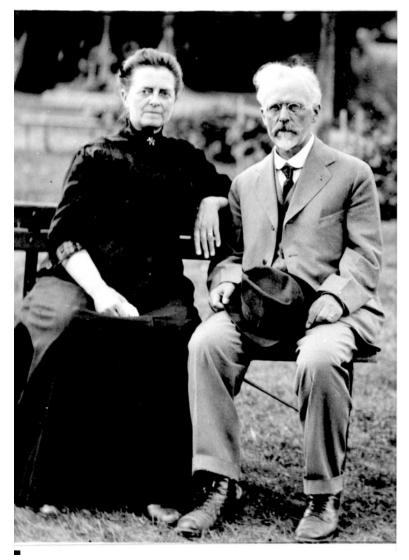






Niels, Emma and Carl Circa 1905

Dora Pammel, Circa 1895



Niels and Dora 1021



Home of Niels and Dora, built around 1011



Massive annual Chrysanthemum show at the college greenhouse



Hobo Day parade
(SD State Agricultural Heritage Museum)

### NIELS MARRIES DORA PAMMEL

#### 1907

"Miss Pammel now becomes their mother in title as well as deed."

Ames Times, 1907

The long journey may have led Niels to assess the dangers he had experienced and the continued uncertainties to which he was exposing his children. If something happened to him, the children would be orphans.

In addition, he recognized that he was an absentee father much as Andreas had been. He may have longed to establish a home for his children. His gratitude to the Pammels for raising Eva and Carl as he roamed around the world could not alleviate the fact that they had no real home or family life.

Dora had been caring for the children for nearly three years. Eva, now 8, could vaguely remember her mother. Carl, 4, who had lost his mother at about the same age as Niels had lost his, knew no other mother than Dora. Her marriage to Niels on August 27, 1907, seemed a logical step.

The family has recognized that this was no "love match" like Emma and Niels. However, the marriage was more than one of convenience; they respected one another. Dora (Doratea Sophie), 38, unmarried and living with her parents, probably welcomed the opportunity to continue to provide care for the children she had come to love, as well as enter into the social life as the wife of a college professor. Niels admired her integrity and loyalty to family. Now he could rest assured that the children would be protected if something happened to him overseas, and he would have a home and family.

The one thing that they appeared to have in common was their love for Emma. Gladys, Carl's wife, remembered that one November evening, many years after Emma's death, she and Carl were sitting in the library with his parents. Dora looked at Niels and said quietly, "Today is Emma's birthday." Niels glanced up from his newspaper for a moment, then murmured, "I know."

It is to Dora that the family owes a debt of gratitude for the love story of Niels and Emma. Dora always spoke about the life of her baby sister with admiration and love. She saved the love letters of her younger sister, whom she appears to have idolized, and kept the romantic tale of Niels and Emma alive.

The Ames Times carried the story of the wedding that took place at the home of Dora's parents:

A wedding of interest to many Ames friends of both parties took place Tuesday at high noon at La Crosse, Wis., being that of Prof. N. E. Hansen of Brookings, S. D. and Miss Dora Pammel of La Crosse, a sister of Prof. Pammel and also a sister of Prof. Hansen's former and deeply beloved wife. Since the death of their mother, Prof. Hansen's children have been cared for by the Pammel family in La Crosse and Miss Pammel now becomes their mother in title as well as in deed.

Professor Hansen is one of the best known and most highly esteemed of the alumni of this school of former years, being a graduate of the class of '87, afterwards being assistant horticulturist and later head of the department of horticulture at Brookings, from which place he was commissioned by the department of agriculture two years ago to go abroad on an important mission. Miss Pammel is one of nature's noble women who will bring a store of womanly graces to her new home.

Niels and Dora began living in the house at 720 Sixth Avenue, the home that Emma and Niels had shared for six years. However, Dora never quite made the transition from La Crosse to Brookings. The small prairie town could never quite measure up to her "hometown" on the banks of the Mississippi. She

usually took the children to her parents' home in the summer, and both Eva and Carl could recall many summers spent with their grandparents and cousins on farms nearby.

Nevertheless, Dora became an active member of St. Paul's Episcopal church, was a charter member of the Faculty Women's club, and no doubt attended faculty functions with her new husband. Dora preferred to have a few close friends, rather than join the various clubs that Emma had enjoyed. She did not like to travel, and seemed unruffled by the transoceanic trips Niels took. The one time she accompanied Niels overseas was in 1930 when she borrowed money from Eva to visit Germany and see her cousins with whom she kept in contact.

Niels was probably thrilled to have a family again. He enjoyed taking the children for nature walks in the woods near the campus where he taught them the names of trees and flowers. Son Carl recalled there were few houses or trees between home and his father's office in the Botany building. Carl would wait and watch for his father to leave, and then pull his red wagon toward his dad who would give him a ride home.

Dora, at five foot eight, stood nearly as tall as Niels. A hand-some woman with large brown eyes, Dora treasured her upbringing on the family farm and appreciated the values she had learned from her highly respected parents. She had acquired many home-making skills that enabled her to surround Niels and the children with a well-run household. Dora was a true helpmeet to Niels. She economized on his small salary, kept the house in shining order and prepared jellies and jams from his fruit experiments. When Niels was gone for long periods of time, she assumed the role of both mother and father and took full responsibility for the maintenance of the large three-story home.

Dora excelled in the domestic arts and enjoyed needlework such as crocheting, embroidering, and tatting. She was an accomplished darner, for she preferred to darn or patch rather than buy new.

In order to supplement their food budget, Dora canned fruits and vegetables from her garden.

Recognized by the family as an astute businesswoman, she was named as an executor of her father's will at a time when women were not allowed to vote. She owned and rented a farm near Eden, South Dakota.

Ledgers, which she kept through the years, show a business like approach to financial matters. She kept track of her expenses and meticulously recorded every loan or interest payment. She seemed to have kept her affairs separate from Niels' accounts, and sometimes loaned money to him or the children.

Although she had graduated from high school, Dora did not aspire, as Emma had, to a college degree. Nevertheless, she did encourage Eva to attend college. Carl seemed to be her special charge, and she nurtured his position as the successor to the family name.

The grandchildren remember her for her old-fashioned virtues and her reluctance to adapt to anything modern. For years Dora used a hand-cranked washing machine rather than succumb to an electrical appliance. She told her daughter-in-law that she found it "relaxing" to use this old-fashioned method.

She would not permit a radio in the house, even during the war years when she and Niels were anxious over the fate of their grandson, David Gilkerson, serving in the army in Europe. They also must have worried about the many relatives still living in the combat zones in Germany and Denmark.

### Niels and Dora Build a House

Niels and Dora purchased a lot in 1910 for \$575 on the corner of Eighth Avenue and Ninth Street, two blocks west of the campus. The next year they built the large three-story house that still stands today.

The home had a parlor, dining room, library and kitchen with a pantry on the first floor, and included four bedrooms and a bath upstairs. The full attic with its hardwood floors and tall ceilings had a small servant's bedroom under the eaves.

The parlor on the front of the house was closed off and rarely used. When special visitors came, the dust covers on the Victorian furniture were removed and the two doors leading into the hall and dining room were opened.

Dora kept the home in spotless order with the exception of the library, which was Niels' realm. The glass covered bookcases held precious souvenirs from his trips and reference books on science. A clutter of manuscripts or magazines usually covered the floor.

Dora would never allow the plastered walls of their home to be painted or wallpapered; the paintings of Andreas covered nearly every square inch of wall space. She used elbow grease and linseed oil to polish the oak woodwork. Floors were waxed by hand.

### **Brookings Begins to Grow**

In the early years of their marriage, Dora and Niels observed that Brookings was a town on the move. With its college campus and light industry, the municipality was located on a major railroad and the increasingly important intersection of the eastwest and north-south highways. As the county seat of government, the town was assured of stability. The population grew slowly but steadily to about 3300 people.

Brick churches and buildings replaced earlier wooden structures. The streets were renamed. Gravel on Main Street replaced the mud and potholes that plagued both vehicles and pedestrians. The construction of a new county courthouse in 1912, coupled with a new City Hall and the completion of the south half of the administration building on campus, marked a period of significant building.

Automobiles began to take the place of horse-drawn vehicles. By 1909 the local paper noted, "Brookings is getting the automobile fever." People noticed increased traffic on county roads. Several years later, motorcycle and automobile races were featured at the Brookings Fairgrounds.

Niels never learned to drive. He used the automobile as he had used the tarantass and troika in Siberia. He hired drivers, sometimes family members, sometimes students or others.

## Changes at the College

Enrollment at State College was also growing with close to 900 students and 60 faculty. No longer Dakota Agricultural College, it was now the South Dakota State College of Agriculture and

Mechanical Arts. James E. Wilson, a college friend of Niels from lowa days and the son of the Secretary of Agriculture, was appointed Director of the Experiment Station in 1910. This appointment assured Niels of continued backing of his plans. They admired each other's capabilities and supported one another in budget matters.

A women's dormitory, a chemistry building, a dairy building and a power plant were all built in 1909. An Aggie school ran for five months every winter. Farmers Institutes, begun by the college in the late 1880's, gave way to the Agricultural Extension Service. Hobo Day, the traditional homecoming day for South Dakota State, began in 1912 with a football contest against Yankton College, which State won.

Niels had his own unique contribution to Hobo Day. Each year he filled the length and breadth of the large green house with a spectacular display of chrysanthemums. This annual event, The Chrysanthemum Show, became part of the activities surrounding the homecoming. People looked forward to this experience, often attending the parade and then viewing the mass display of flowers before going to the game. Eventually, a large yellow mum became a favorite corsage and symbol of State pride.

Excerpt from a poem by Niels written for Hobo Day extols the virtue of The Chrysanthemum Show.

The Chrysanthemum Show Invitation

Through the haze of golden October Come in your chariots of steel, Rejoice at the glory of Autumn, This magic beauty you'll feel.

The air will blossom with melody, And this is their message dim: "He who careth for flowers Will also care for Him."

## A Song for State College

Niels and Professor Francis L. Haynes of the Music Department decided the larger institution needed a school song that would instill pride in the new name and its school colors.

Professor Haynes, a tall, lanky man and the shorter Niels looked, as writer Ray Jepsen suggested, like Ichabod Crane and a friend. The unlikely team of musician and scientist marched up and down the streets around the campus as they coordinated the music and words. This amusing sight was a serious effort at song writing which in 1908 produced "The Yellow and Blue", the college's school anthem. Haynes is credited with the music and refrain; Niels wrote the six stanzas in the elaborate style of the early 1900's, which expand on the theme of yellow and blue:

We come the Sioux and the Missouri,
The Cheyenne and the Jim,
From pine-clad peaks of the Black Hills,
Brimful of vigor and vim.
We sing the song of the prairie,
The home of the Yellow and Blue,
The gleaming gold of the cornfield,
The flax of azure hue.

The glorious haze of the harvest,
Where sky and prairie meet,
The golden gleam of the sunrise,
The blue of violets sweet,
The yellow and blue of the rainbow,
The azure of noonday sky,
The golden hair of the maiden,
The blue of her sparkling eye.

The yellow and blue of our banner,
The cups won on the field,
The golden words of orations
That honors unto us yield;
We sing the song of the prairie
Where many a mile we may scan;
And the blizzard breath from the northland
Develops the fighting man.

The broncos we break for the round up And ride the range all day; We kill the coyote and gray wolf As snarling they sneak away. The peace pipe smoke with the red man And listen to legends of gore, The loud tum, tum of the Sioux's drum, The tomahawk dance of war.

Rejoicing behold we the sunset
O'er waving plains of wheat
And Paradise portals of sunrise
Aglow with glory replete;
Oh joyous life of the prairie,
More free than o'er mountain and vale;
To S. D. S. C. thou callest,
Whose honored name we hail.

Then forth to a bold life of action Both stirring and grand for all; As knights of old battled evil So we are heeding the call. We scorn the faint-hearted coward, A slave for the galley is he. We cheer the knights of the present And fight on to victory!

Cathie Cook, a reporter for the college newspaper, The Collegian, seemed intrigued by the verses and wrote an article about the song. "Every student knows the familiar tune and the words to the refrain, 'Oh S.D. S.U! Hurrah for the Yellow and Blue!' But does he know the six verses which tell the story of the South Dakotan and State University student?"

Ms. Cook explained each verse and pointed out in her article that years ago every student knew at least three of the six verses. W. A. Peterson, professor emeritus of music, commented:

Every Thursday a compulsory assembly was held. These convocations were mainly pep fests and talks by the Student

Association officers. Three verses of the school song plus the refrain were sung to keep interest in school affairs high.

### **Sisters of Niels Move**

Busy as he was, Niels always kept in contact with his two sisters and their families. Sister Helene and husband Louis Olsen moved to Chicago where their son Marius set up a sign painting busi-ness. Sister Kristine, her husband Jens Rasmussen, and their nine children moved from Iowa and began homesteading in Canada in 1911 where they founded a colony of Danish farmers at Standard, Alberta, near Calgary. Their northern farm gave Niels an opportunity to send them Siberian seeds that they planted for experimental purposes and furthered his knowledge of how well the plants could do in the field. The Rasmussen farm still grows some hardy plants that were given to them by Niels more than eighty years ago.



Niels dressed for field exploration with a rubber billy club, a dagger on his right side, a revolver in his belt,



Niels with a tribe of Kirghiz natives, hired to gather alfalfa seed, 1908



Niels after 400 mile trip through the Steppes in Biisk, Altai Mountains

## **INCREDIBLE JOURNEY**

### 1908-1909

"No one knows the trail an explorer should take; it cannot be definitely laid out by anyone."

#### **Niels**

Niels and Dora had been married less than a year when Secretary James Wilson decided that Niels should go back to Siberia. Wilson, and his associate, B. T. Galloway, Chief of the Bureau of Plant Industry, wanted Niels to find the two yellow-flowered alfalfa species that he had failed to locate in 1906. They also wanted a complete survey of alfalfas of the world to assure that nothing of value would be missed.

Congress appropriated \$10,000 for a nine-month trip with broad ranging goals. With a salary of \$3000, Niels would be allowed the freedom to make his own plans. He commented to his biographer that he was grateful for the unfettered opportunity.

No one knows the trail an explorer should take; it cannot be definitely laid out by anyone. Even the explorer must find it from day to day for himself.

The freedom to choose his own course would lead Niels on an incredible journey of nearly 20,000 miles! He crossed the Atlantic Ocean twice, and traversed the length of the landmass of Russia to the borders of Mongolia and back again.

Upon leaving Russia, Niels began a twenty-one day odyssey on the sea. He boarded ships and steamers that carried him over the Caspian Sea, the Black Sea, and the Aegean Sea. He traveled the length of the Mediterranean Sea from Constantinople to Marseilles, with a brief stop in Algiers. In a report to the Department of Agriculture Niels described his expedition as "A Perspective View of the Alfalfas of the World." His report to the Department also noted that,

The third tour to Siberia was very greatly hampered by unfavorable weather; it was the wettest and most backward season known for many years and the seeds were not ripe at the usual time. The widespread epidemic of Asiatic cholera in Russia and Siberia, in the midst of which the writer had to labor, did not facilitate the work.

The difficulties to which Niels alluded in his report were manifestly more severe and numerous than his language would indicate. In addition to cholera, he faced bandits in Mongolia, a revolution in Tashkent, and a Russia filled with political turmoil.

## Russia In 1908

The Czar had gradually assumed more control over the country by 1908. The constitution, which had been reluctantly established in 1905, was drastically revised; the voting franchise was essentially in the hands of the wealthy. Order was restored by a ruthless martial law. Discontentment among the peasants and workers continued to grow. Carefully assessing the situation, Niels avoided populated areas. He hired three assistants, Dr. Dsirne, Mr. Kurbatoff, and Mr. Bass, and headed for the steppes.

## **Mongolian Bandits**

Fruitlessly searching the area around Semipalatinsk where he usually found alfalfa, Niels was hampered by a late season, rainy weather, and unripened seed. As a result of these adverse conditions, he and his assistants left for Eastern Siberia.

Before Niels and his group reached the edge of the Gobi Desert in mid-September, they encountered dangers from Mongolian bandits. Traveling on an express train, they found soldiers guarding a town through which they were passing. A gang of 150 outlaws had attacked the train several days before and soldiers had shot several of the robbers. The possibility of further violence prompted the government to add a Cossack escort to Neils' well-armed group. In one village, on the day of

the expedition's arrival and the day following, two murderers were bloodily executed by stoning.

Niels never lost sight of his mission — to collect the seed of yellow-flowered Medicago ruthenica alfalfa that grew on the dry desert plains near the Gobi Desert. In his report to the Department Niels explained the difficulty of completing this goal:

To gather Mongolian alfalfa seed in the vast sandy desert between Charhonte and Chailar much help was needed. It is an arm of the Gobi desert and the plants were found scattered over at least fifty miles east and west. Labor scarce, mostly Chinese and Monglians, busy on Argun River bottoms haying and on railway work. By courtesy of Russian military officials, many soldiers were permitted to gather seeds in free times, and the necessary military protection was also granted.

I paid by the pound so cannot tell the exact number of laborers employed, but estimate fully 400 people. I paid high enough so other work was postponed.

Impressed by the visitor, the governor of the province gave Niels a banquet. Niels commented, "The experience was unique since the menus of the Orient and of the Occident differ so widely." The menu included shark fins, seaweed, water-lily seed, and an un-known soup, but as Niels told an interviewer, "Everything went-down."

The host asked through an interpreter about the exclusion of the Chinese from America. He was referring to the prejudicial laws enacted in the United States that prohibited the immigration of his countrymen. Not wanting to offend his host, Niels tactfully answered he was a horticulturist, not a policymaker, but perhaps the best idea was America for the Americans and China for the Chinese. The Mongol chief seemed satisfied with this diplomatic answer and admitted that America had done much for China. He added that Mr. (Theodore) Roosevelt was China's great and good friend and appeared willing to let the matter drop.

In another place, however, the explorer was not treated as royally and was suspected of being a spy. Niels assured them that, "I am not a military spy. I am only trying to find out what keeps you alive. Some of your plants I believe are better than we have. America wants them. If America has anything better than you have, we will be glad to send it." This statement ended the doubts of his listeners.

## **Cholera Epedemic**

A life threatening experience with a cholera epidemic occurred as the group returned to Western Siberia. Learning that the water-born disease had spread throughout the region, Niels and his team sought to escape the outbreak by taking a train through the afflicted area to Obb where the epidemic had not yet reached. The train was full of people fleeing cholera. One man, sick with the disease, was taken from the train.

Defying the threat of contagion, Niels persevered in his seed quest for the other alfalfa. In his diary he wrote, "Found Medicago platycarpa. Hurrah! Mud, snow, cold, etc. count for nothing." At Obb, he hired 250 men, women, and children from two tribal communities to gather alfalfa seeds. For three days Niels gathered enough seed to fill eleven sacks. He spread the seeds out on the hotel room floor to dry.

A glimpse of what this expedition entailed can be found in the accounting Niels gave the auditor upon his return.

Oct. 3<sup>rd.</sup> Another interesting and strenuous experience.

A tract of over 300 acres, mostly wild pasture, partly cut for hay. Weather dry, but liable to rain any day and getting late. I sent to two villages, Sataninskaya (also called Verch-Tulinskaya) and Iresnoye for all the help I could get. Men, women and children turned out and worked all day. 62 on Oct. 3<sup>rd</sup>; and 200 on Oct. 4<sup>th</sup> with 36 horses drawing one-horse wagons.

Niels had a fondness for the native people he hired. He once commented:

In this work I found field workers very helpful, as well as the leaders in science. One of my favorite sayings

is, "I don't look up at people or down at people, but try to look straight ahead at people." Everyone must "save his face." This humble attitude will unlock all doors.

The ease with which he worked with strangers and proof of his engaging personality can be inferred from the unusual farewell given by the peasants. They gathered around him and bid farewell by singing Cossack songs.

Perhaps assuming that they had outrun the cholera threat, Niels and his assistants boarded a steamer headed toward the Altai Mountains near the Chinese border. To their dismay they found that cholera had spread to the passengers. Niels described part of this tour in an unpublished article, "North Pole of Apricots", which told of the thousands of cases of cholera that raged through the countryside.

The 1908 tour of Siberia was marked by a widespread epidemic of Asiatic cholera. There were cases of this swift-acting disease on the little steamer on which I sailed up the Ob River; one death. Our steamer flew the yellow flag for three days. When we arrived at Biisk in the foothills of the Altai Mountains we were not stopped as people were dying on the streets with Asiatic cholera.

This plague acts swiftly, often causing death in eight hours — when the chill reaches the heart. One of my assistants, a doctor, felt ill, went to the hospital and had his stomach pumped out.

Niels explained the cholera incident in more detail in his trip diary from October.

Asiatic cholera patient, girl of six, was taken from the emigrants as the steamer left Obb. A woman taken sick (cholera) last night on the steamer died this morning. At Kamen about four p.m. the corpse was taken on land. The clothes were first burned as the steamer arrived about four p.m. Steamer hoists the white flag indicating sickness on board.

For three days Niels and his assistants sailed with a steamer infected with chlolera. When they arrived at Barnaul, the yellow quarantine flag was hoisted. In his diary, he mentioned two more steamers that arrived with four dead passengers. Since the city had so many cases of cholera already, passengers were not considered to be a risk to spread the disease. He and his party were able to leave the ship and spend time ashore. Niels commented:

The rest of us went out into the open country and kept on working. We drank only boiled water and we avoided raw fruits and vegetables. Wash hands often with alcohol in water. Don't get alarmed. Keep out in the open air, avoid crowds. Keep cool.

After the long overland journey to Mongolia and back, followed by his brush with cholera, Niels appeared to be getting a little lonesome for his family. His diary reveals frequent postcards and letters home. Nevertheless, he pressed onward to find a special clover that he thought would do well in the Southwest and headed south toward Tashkent, Kazakhstan.

#### **Tashkent Revolution**

When Niels arrived in late November he encountered a rebellion. The provincial governor, to whom he had letters of introduction, was under siege by revolutionaries. Niels avoided the palace in Tashkent and stayed at a nearby town.

Despite the dangers, he was able to obtain a good source of the clover, and divided the supply into three shipments; one he kept with him, one he mailed home, and the third he sent with other lots by freight. He also found a large grape and obtained 500 vines for experimental purposes in California. He then pressed onward to accomplish his goal of a world survey of alfalfa and turned toward the Mediterranean.

His diaries do not reveal much of what he saw, but Niels gave a detailed accounting of his oceanic voyage on the Mediterranean in an unpublished manuscript, "Missing an Earthquake."

Late in 1908, enroute in an old French Steamer from Batoum [Georgia, Russia] to Marseilles, I saw at several ports of Anatolia, the north coast of Turkey,

long lines of huge barrels of wine towed out by row boat to the steamer. The cranes hooked them, one by one, and soon we could go to the next stop.

It was fortunate that it was an old and slow steamer, taking two weeks from Batoum to Marseilles, with stops at many places for cargo. But when we reached Constantinople, we were warned to go through the straits of Messina by daylight - the great earthquake had left the ocean floor a problem.

So after Smyrna and Piraeus, the port of Athens, the steamer sailed through the straits of Messina. As we sailed past Messina [Sicily], the ruined buildings showed the great devastation. A number of warships were already on hand to safeguard the city. A swift steamer would have reached this place right in the midst of the great earthquake.

We sailed for Marseilles, but the storms were so strong the steamer made no headway, so I left the steamer at Ajaccio, Corsica, where I visited the house where Napoleon was born.

The next day I left by train across the island to Bastian, and then by steamer past the island of Elba, where Napoleon lived in exile the last years of his life.

On to Leghorn, Italy. From Leghorn to Rome, Naples and Marseilles by train. Across the Mediterranean by steamer to Algiers. The sea was very rough and out of some 250 passengers only three showed up for breakfast the next morning. I was glad to be one of the three.

Next by train from Algiers down into the Sahara Desert at Biskra. Here an Arab guide helped me collect the Arabian alfalfa as grown in the Sahara Desert. Returning to Marseilles, I got my baggage, including two willow-baskets full of Maskah and other grapes of Turkestan. It was a question as to whether I could get them through the customs but they were free from the dreaded phylloxera [plant lice]. The

next morning I had them in Paris, then by train to the ocean steamer at Cherbourg, for New York.

Niels gave a brief mention in his diary of a peculiar tree alfalfa whose seeds he gathered on Mount Lycabetos, near Mars Hill, at Athens. Cattle browsed on their leaves and the stems were used for prayer beads or sword handles. He later dug the same plants from crevices of rocks when he explored near Naples, Italy.

#### **Home At Last**

Niels returned to Washington on February 10, 1909. After spending ten days in Washington at the Department of Agriculture to confer about his journey, Niels went with Secretary Wilson to meet President Theodore Roosevelt, who was in his last month of office.

At long last Niels was homeward bound. Anxious as he was to see his family, he could only stop for a few hours in La Crosse, Wisconsin, where Dora and the children had been staying with the Pammel grandparents. He felt compelled to hurry out to Pierre, South Dakota, while the legislature was in session. He was after a greenhouse for his plant breeding. He lobbied for a week and successfully persuaded the legislature to appropriate the necessary funds. The large structure, 41 x 116 feet, was erected next to the Botany building and for many years was the only such greenhouse in the nation.

In early March Niels returned to La Crosse, picked up his family, and returned to Brookings. He had been gone for over tenmonths.

### **USDA AND NIELS**

### 1909-1913

"Mr. Hansen's qualifications fit him better for handling the domestic end of the problem than the foreign one."

David Fairchild, USDA

Troubles between Niels and the Department of Agriculture began after his 1908-09 trip. In spite of the 300 lots of plants he had shipped home, the Bureau of Plant Introductions was dissatisfied with Niels' work.

They disallowed the fact that he had completed the mission of finding the two other hardy alfalfa plants in Siberia. His excuse of wet weather and a late season, which had prevented a satisfactory collection of alfalfa seed, fell on deaf ears. The department ignored his death-threatening experience on the cholera-infected steamer on the Obb River, his explorations in bandit-infested Mongolia, and his stormy passage on the Mediterranean Sea.

In their view, they had a serious reason to be unhappy with his journey. He had overspent his budget. The Bureau, which held the spending of public funds to be a sacred trust, could not tolerate such waste. Every explorer returning to Washington faced an audit of his financial records by the Bureau. Explorers were allowed \$5 a day for food and lodging and 50 cents per day for transportation in addition to their salary. Accountants swarmed over these records with little sympathy for the harsh conditions under which the funds had been expended.

A hint of the detail in which Niels had to defend his records can be found in this partial accounting to the auditor. In a lengthy explanation that ran four pages, Niels attempted to clarify the need for the expenditures he submitted. To the deskbound clerks in the accounting office he submitted these arguments:

## **Clothing Equipment**

In order to make the overland journey in safety it was necessary to purchase certain clothing equipment for members of the expedition. This consisted of blanket, boots, etc. My assistants were not prepared for such a journey, and the period of their employment was too brief to expect them to furnish their own equipment.

#### **Medical Attendance for Assistant**

During the journey one of my assistants was taken violently ill at Barnaul, immediately after we got off the steamer on which a woman had died of Asiatic cholera. Immediate relief was necessary, and the services of a physician were necessary to pump out the stomach of this assistant and otherwise give him the required medical attendance.

This is the only item of this nature included in the accounts, although the members of the expedition were put to a considerable expense in purchasing the medicines to guard against the prevalence of cholera, etc.

He went on to explain about cab fares and tipping and added this plea:

It is requested that in passing on these accounts the fact be considered that traveling expenses in the remote regions which I visited are in many cases unusual, and are very different from the ordinary expenses incurred by the traveler in the United States or in the more traveled countries of the globe.

Whatever the reasons for his expenditures, the auditor declared Niels had overspent his budget, and the puny amount of sixty-eight pounds of alfalfa, along with other plants that arrived dead, put him in an unfavorable light with the Bureau that had expected much more. Nevertheless, the Bureau published his findings in May 1909 in Bulletin 150.

## **South Dakota Supports Niels**

Stung by the criticism of his colleagues in Washington, Niels was buoyed by the enthusiasm of the farmers who had endured drought conditions in the 1890's and affirmed his assessment of the importance of his hardy alfalfa. They had been planting this crop since his first trip to Siberia and knew the worth of his contributions. When he offered to send ten free alfalfa plants to the first ten applicants from each county in South Dakota, he received 800 requests.

The South Dakota legislature supported his efforts by passing a \$1000 appropriation bill in 1910 and 1911 to help fund the distribution of alfalfa plants from the Experiment Station. It continued with additional funding until 1919. Niels later reported, "It has been a big extra load to carry but one that has been a great pleasure to me as I felt it was a worthy cause." Alfalfa was sold by the Experiment Station until Niels' retirement in 1937.

## **USDA and Niels Part Company**

Men in the Bureau of Plant Introductions who had oversight for plant exploration had misgivings about Hansen. B. T. Galloway, now Assistant Secretary of Agriculture, and David Fairchild, back at his old job as Agricultural Explorer in Charge, questioned Hansen's abilities. They also may have felt that since he was a close personal friend of Wilson instead of a Bureau man, his successes brought recognition to the Department of Agriculture, but not to the Bureau.

They probably resented Wilson's praise of Niels when he said, "I have twelve hundred men under me, but none who knows how to work like Hansen. There is only one Hansen."

Fairchild had his doubts as early as 1907 and had questioned Niels' veracity. In a letter to Galloway dated July 11, 1907, he referred to the report that Niels had sent to the Secretary of Agriculture following his 1906 trip. Fairchild stated: "I believe that you will find, as I have, that nearly one-half of all the seeds and plants which Mr. Hansen sent to this Department, as the result of his trip, were secured from the Agricultural College of Moscow between the dates of September 18<sup>th,</sup> 1906, and October 2<sup>nd</sup>, 1906."

The unsatisfactory part about it is that many of these inventory descriptions are so worded that unless you follow Mr. Hansen's route carefully and realize that he did not visit many of the provinces mentioned, or spend as he did, e.g., in Samara only 20 hours there, you might think that these were original collections made by him; when, in fact, it is perfectly evident that they were gathered at the Moscow Agricultural College.

## Niels Requests a 1911 Trip

When Niels had appealed to Secretary Wilson for another trip to Siberia as early as 1911 to obtain large quantities of urgently needed alfalfa, Wilson discussed the idea with Galloway and Fairchild. Fairchild pointed out that Hansen had received a large appropriation in 1908 and had collected only a small amount of seed. He argued that many of Hansen's plants were dead when they arrived.

With the perceived failure of the 1908-09 trip, the Bureau dismissed much of what Niels had contributed and did not recommend additional explorations. Further plant hunting would be assigned to others. Fairchild felt confident that Frank Meyer, another plant explorer who was already in Siberia, could make better contracts. Dr. Galloway and Secretary Wilson agreed to entrust the alfalfa project to Meyer.

# **Meyer Goes to Siberia**

Secretary Wilson then ordered Meyer instead of Niels to collect 500 pounds of alfalfa and clover, but Meyer had great difficulty getting natives to bring him alfalfa seeds. Farmers laughed and said, "We don't want to gather weeds." Even when Meyer managed to get a few contracts for seeds, the farmers did not comply. Meyer seemed to lack Niels' rapport with natives.

Like Niels in 1908, Meyer searched near Semipalatinsk in snow and rain, but the quantities of alfalfa seeds that he sought were not available. Constant rain that summer had ruined crops that rotted in the fields. After six weeks of work, Meyer had gathered only three sacks of alfalfa seeds.

He contacted a nurseryman, Woeikov, to supply up to five hundred pounds of clean Medicago falcata seeds at two rubles a pound. Meyer was later embarrassed to find that the Department no longer wanted the seed. Fairchild told him that those who were inter-ested in Medicago falcata did not want more seeds; therefore, Meyer would have to tell Woeikov to stop collecting more. After he had spent six months searching for a large quantity of alfalfa, Meyer resented the fact that he must now renege on his contract with Woeikov.

"I will face the music there in Russia," he wrote P. Howard Dorsett of the Bureau of Plant Introductions and added,

This whole falcata subject has been a pretty sore topic with our Department. A little more firmness would have facilitated matters considerably. Then the Hansen affair would not have assumed such big dimensions.

Meyer had already indicated his disillusionment with Niels during a visit to the South Dakota Experiment Station in 1908 when Niels was away on the trip to Siberia. According to Meyer's biographer, Isabel Shipley Cunningham, Meyer found the Experiment Station "tastelessly planned" and plants overgrown with weeds. "Meyer concluded that Hansen was trying to do too much to be able to maintain the experiment garden properly." Meyer was also indignant over an article in a Coleman newspaper that had mentioned his visit to the station and quoted him as having praised Niels. Meyer sent the clipping to the Bureau with the note: "I did not say anything they mentioned here. Pure invention. F. N. M."

Though Meyer dreaded discussing the "the disagreeable Medicago falcata subject," he settled his accounts with Woeikov and informed him that the department could not buy more alfalfa at the time.

Meyer visited Mr. Bogdan, director of the Agricultural Experiment Station at Krusny Kut, who had gathered fifteen cultivars of Medicago falcata. Meyer wrote to Fairchild:

At first Bogdan was somewhat cool about exchanging things for he told me he had given Professor Hansen some selected strains of watermelon seeds. These same things had recently been brought back to Russia as American products, and he had never received even a bulletin from Mr. Hansen for thanks!

One hears so many things here in Russia about Mr. Hansen that I have to tell you them.

Meyer recounted that Hansen had put in the Russian papers "that he was willing to supervise for the Russian government the collection of great quantities of Medicago falcata in cold Siberia."

## Pleas for a 1913 Trip

Niels lost his "friend in court" when James Wilson retired in 1913 from the United States Department of Agriculture. Wilson, who had served 16 years under three presidents, left the scene when President Woodrow Wilson took office. The chances of Niels receiving any more funding from the United States Department of Agriculture seemed remote. However, Niels remained undaunted.

Despite the Department's refusal two years earlier, Niels wrote to the new Secretary of Agriculture, David Houston, in 1913 for \$5000 to fund another trip. Fairchild grumbled in a letter to Frank Meyer,

He had the gall to get his friends to write the new Secretary, urging him to grant him five thousand dollars and carte blanche, so that he would not have to take out any vouchers. The present Secretary of Agriculture will handle this matter differently from the previous one.

Fairchild pointed out in a letter to Galloway, dated January 11, 1913, that Meyer had already contracted to secure quantities of seed from Mr. Woeikov and the department did not need more. He did not see the need for the department to send "Hansen or any one else at the time for the purpose of getting other varieties of this plant." (Medicago falcata)

He did, however, express the opinion that the enlargement of seed plantations and special machines for transplanting alfalfa showed promise, and that

Mr. Hansen's qualifications fit him better for handling the domestic end of the problem than the foreign one. It is a regrettable circumstance that as a

result of Mr. Hansen's expedition, practically no new contacts were obtained with Russian authorities.

Mr. Hansen kept his notes in such shape that it has been practically impossible to find out from whom he secured his seeds, and the fact that it has not been possible to get from him definite information, has lessened very greatly the work which he has done.

I do not believe that Prof. Hansen is qualified by temperament to guide and conduct the right kind of any expedition which would clear up once and for all time any doubtful points with regard to the Siberian alfalfa, and there are men just as well qualified to judge of the prospective value of these Siberian species and much better qualified than Mr. Hansen to handle the botanical side of the problem.

Then Fairchild hit on the crux of the matter — Hansen was not a Bureau man:

One of the great difficulties heretofore has been, in my opinion, that the Bureau men who have had to handle the alfalfa question have none of them been given the opportunity to study the problem abroad. This opportunity has been given to Mr. Hansen, who is not located in Washington, but in one of the State Experiment Stations.

In later years Niels would allude to this bureaucratic censure in his unpublished book, <u>Russia as Observed by an Agricultural Explorer</u>:

My enemies, sometimes unfair, jealous and vindictive, also taught me something: Always be prepared for battle. As Theodore Roosevelt once said, "Speak softly but carry a big stick."

In this case, the "big stick" was the South Dakota State legislature. South Dakota was serious about hardy alfalfa and had confidence that Niels was the man who could get it for them.

Niels knew exactly where it was and would gladly fulfill their wishes if he could just return to Siberia and collect more falcata seed.



Niels with tailless sheep, 1913



Niels in Semipalatinsk, a Tartar village, 1913



Niels feeds yellow flowered alfalfa to camels, Semipalatinsk, 1913 (SD Agricultural Heritage Museum)



Niels traveled by tarantass throughout Siberia, Semipalatinsk (SD State Agricultural Heritage Museum)

### A TRIP FOR SOUTH DAKOTA

#### 1913

"Great Scott! How is it possible? What special things can he get in Russia and Siberia?"

Frank Meyer to David Fairchild. USDA

Confounding the Washington opposition, the 1913 South Dakota State legislature, under House Bill 248, appropriated \$10,000 for "the purpose of procuring Russian and Siberian alfalfa seed for propagation and distribution in every county in the State of South Dakota."

The bill specifically named N. E. Hansen as the recipient of the money that nearly equaled the amount that the Federal government had appropriated for similar trips and was double the amount he had asked from the Department of Agriculture.

In addition, the legislature, under House Bill 448, appropriated \$15,000 for:

the propagation and distribution of hardy alfalfas in the state of South Dakota. The moneys appropriated by the provisions of this act shall be paid out on vouchers approved by Professor N. E. Hansen, under the direction and with the approval of the board of regents.

Niels' detractors in Washington could not believe the news. Frank Meyer wrote to Fairchild from Peking on May 19, 1913. "Great Scott! How is it possible? And what special things can he get in Russia and Siberia?"

The Board of Regents probably agreed with Meyer for they were unalterably opposed to both appropriations and would cause Niels some problems after his return.

# Disapproval of Niels' Work

Niels also had detractors from a major publisher. In a letter from The Dakota Farmer to Henry Jeffries of Sansarc, SD, dated December 17, 1912, the magazine summarized its dissatisfaction with Niels. Apparently, Jeffries sent the letter to Niels, for the family has a copy of the document.

### Dear Sir,

In your letter, you indicate that <u>The Dakota Farmer</u> is unfriendly to Professor Hansen and his ideas, and I am very frank to say, Henry, that we cannot follow him and his ideas absolutely and blindly, for the reason that it appears to us that his advocacy of his "hearty alfalfa plants" is along the line that they are the only kinds and varieties worthy of attention, or of planting, in this territory.

I think that no one realizes the importance of Prof. Hansen's work or the necessity for the developing of absolutely hardy varieties of alfalfa more than do we of The Dakota Farmer.

We realize there are perhaps hundreds of square miles on which the present used variety of alfalfa will not grow, but we do believe that there is nearly as large, if not larger, an amount of land on which present used varieties will grow. If these will grow and prove profitable, why wait for a hardier variety—why not use the best we have at the present time, and adopt the more hardy variety when obtainable?

During years past, we have devoted considerable space to discussions of the matters by Professor Hansen, and some opposed to his one idea of "wait for the perfect plant," and I am very sorry indeed that it has been found impossible to have these discussions without getting into personalities.

Our position is just this—make the best possible use of the best we now have and hasten the development of more hardy varieties. This does not seem to meet the Professor's ideas and hence we differ.

## A Differing Opinion

Niels may have taken consolation from a flattering article written by William Kirkwood, who had previously chronicled three of Niels' trips to Russia. They met again when Niels stopped at The Farmer magazine in Minneapolis on his way to Washington,

D. C. prior to his 1913 trip to Siberia. Following their conversation Kirkwood wrote in the October American Review of Reviews:

Professor Hansen is the kind of man who, having set himself a task, never lets go until the work is finished. He is a quiet man, but his mind teems with problems, and he talks readily enough with those who show a genuine interest, now and then flashing out an epigram to clinch a point. Thoroughly logical, he is yet finely imaginative.

He grasps facts quickly, correlates them, and then draws original and sometimes startling conclusions. Along with all this you find a keen sense of humor and a splendid large-heartedness, an interest in the general welfare that is wholesome and strong without being depressingly serious.

Yet his devotion to his work, as applied to the needs of his fellow beings, is altogether evident. In other words, you read in the man an unfaltering consecration to service.

# The Trip Begins

Niels left Brookings on May 29, 1913, for Russia. He again faced a nation in the grip of inner turmoil. The harsh suppression of the working class dissenters brought the government and the workers into direct conflict. The proletariat, the Soviet of Workers and Soldiers, continued to challenge the Czar's authority. Niels would be far from the political upheaval in European Russia. His diary does not reflect that he felt any personal danger.

This trip was unlike the other journeys he had undertaken for the Department of Agriculture. He would not be an explorer. His focus was on procuring seed for South Dakota, and he headed for the place he knew it was grown - Semipalatinsk.

While he did not have the blessings or the support of the Department, he did need some permits from Washington to import seed. One can speculate on the reception he received when he noted in his diary: "Had lunch at the Department of Agriculture restaurant. Called on various departments."

After a four-day stop in Denmark to see relatives, Niels left immediately for St. Petersburg, traveling through Sweden and Finland. He received the necessary permits from the government and hurried on to Moscow where he bought supplies and hired a guide, Ignatias.

He arrived in Omsk in mid-July and set his sights on the steppes southwest of Semipalatinsk. He acquired a tarantass and a large wagon for baggage. The rest of his party consisted of two drivers, a Cossack guard, and two interpreters, one who spoke Russian and German and one who spoke Kirghiz and Russian.

A few weeks later, he would have trouble with the Kirghiz drivers.

## Niels explained in his diary:

The two Kirghiz drivers quarreled with the Cossack. I paid them and they went home. Later I found they had boasted I would kowtow to them, as I had to have horses and was 80 miles from Semipalatinsk, but I called their bluff. They offered to stay if I would discharge the Cossack, but I, of course, refused to do this.

Niels' ability to engage local farmers was unlike the frustrating experience that had plagued Frank Meyer two years earlier. By mid-August he engaged a group of Kirghiz natives to pick alfalfa seeds, which, unlike his trip in 1908, were ripening in the heat. Soon other natives began bringing him seed. Ten farmers, each with his lot of seed, came to sell. Even a judge brought in a sack from his nearby village.

Niels bought it all. The method of payment was in the form of vouchers. At the Amasof Experiment Station he noted that he spent all day and well into the early morning hours paying off hundreds of natives. He hired native men and women to clean the seed, a task that took them several weeks. Finally he could triumphantly proclaim, "One and 5/8 tons of clean seed ready for planting!"

He next waited for the tailless sheep he had ordered. The addition of this livestock to his original mission can be explained by the nature of Niels' inquisitive mind. He had noted these sheep on his earlier visits, had tasted the mutton and reasoned that an animal that survived such a rigorous climate would be an asset to South Dakota. Once he had the proper permits to export the sheep, Niels was ready for his homeward journey.

His diary does not reveal the extent of shepherding the six sheep for over three weeks on board trains and steamers. He had one panicky moment in St. Petersburg when the sheep car was lost in the yards. He located them early in the morning after searching all night.

His later comments to interviewers emphasized that his clothing had to be discarded after this prolonged exposure to the smelly livestock. He left behind two suits of clothes, an overcoat and several blankets, with the idea, Niels said, "Perhaps the Russians could clean them." He left the sheep in Riga, the only port from which they could be shipped. The eventual overseas journey of the sheep to the Port of New York was entrusted to his favorite import company, Gerhard and Hey. According to Niels' biographer Taylor,

The sheep were shipped as first-class passengers occupying one of the main decks where they had fresh air, trade winds, and sunshine in abundance; clothed in the best of sheep's wool, they were prepared for all kinds of weather and in due time arrived at Ellis Island where, although every sheep was in excellent condition, they went into quarantine for sixty days.

He sailed from Hamburg, Germany after a two-day side trip to Denmark to see relatives. After a week's journey on the Imperator, the largest steamship in the world, he arrived in New York on October 29,1913.

The five-month trip perhaps lacked the excitement of his earlier journeys, but it was probably the most productive in terms of his stated mission - to bring back the yellow-flowered alfalfa that South Dakota wanted.

### The Board Of Regents Question Niels

Controversy surrounded this trip, however, when Niels overspent his budget by \$4000 and faced an irritated Board of Regents upon his return. The Board of Regents, whose duty was to audit Niels' vouchers and who had not approved of this trip in the first place, were now confronted with expenditures beyond the allotted amount.

A clash between Niels and a Brown County man, H. F. Patterson, preceded the meeting with the Board. Although the documents are not available regarding their conflict, it may have sprung from Niels' fear that advertising alfalfa as coming from Russia or Siberia might be misleading if the seed came from the warmer regions of those two countries instead of the northern alfalfa he was promoting.

The Mitchell Gazette outlined the argument in derisive terms that were critical of Niels.

Since Prof. N. E. Hansen got into the controversy with H. F. Patterson, the Brown county expert, over the advertising of alfalfa seed as having been imported from Siberia or Russia, people have commenced to demand to know something of the methods of the Brookings college professor in his several trips to Russia and Siberia.

The Professor has had things pretty much his own way in handling certain matters of an agricultural nature, and has come to believe that little has been done in the state that has not had its origin with him, as was indicated when he went after Patterson.

His attack of Patterson provoked an attack on himself, and at the meeting of the State Board of Regents held at Brookings last week, President Hitchcock made a request that the professor make a report to the board of his trip to Siberia last year.

It should be understood that the state allowed Hansen \$10,000 for expense money, which was presumed to pay all of his expenses over there and back. The Board of Regents, however, to a man, were opposed to this appropriation being made, believing that it was unnecessary to send Hansen over there again. But the friends of the professor put the deal over and he was permitted to make the \$10,000 trip.

On his return last October, and as the report indicates, the professor found that he had exceeded the \$10,000 appropriated by about \$4000, a deficiency which looked like a hard matter to bridge over. It was arranged by the board so that in all probability little trouble will arise.

Hansen brought back 3250 lbs of alfalfa seed, a portion of which, about 2,000 lbs, the regents will distribute among the counties of the state, and the remaining 1250 lbs will be sold to cover the deficiency created by Hansen's ambition to get home with a record—and some more alfalfa.

It would seem that a man of the supposed ability of Prof. Hansen would at least keep within the bounds of an appropriation which the state made against the judgment of the Board of Regents.

When confronted with a deficiency, excuse had to be made to the state officers, the auditor, attorney general and the governor, in order that the deficiency could be overcome with as little embarrassment as possible.

Hansen's report of the alfalfa found in Siberia, coming from a section of country where but eight inches of rain falls, would not seem to be the kind that is desired, in that his report showed that this alfalfa grew in bunches on the steppes, and in fields that were more or less prolific. This alfalfa would

hardly be the kind which South Dakota farmers would care to grow in bunches.

Throughout this report Hansen seemed to have been in high standing over in Siberia, where, we would imagine, he was taken for an American king. He was supplied with a retinue of interpreters, etc., the police paid homage to him, the governors and high officials vied with each other for him to get in touch with the people who had alfalfa to sell.

Evidently there is a large quantity of alfalfa seed in Siberia, judging from the way the report reads, for the people came from all sections of the country, driving with teams and coming on horseback with their large and small contribution of alfalfa seed, for the fame of the American king with money had spread far and wide.

People came so fast that finally Hansen ran out of ready money and he appealed to the people that they would either have to wait for their money or take back their seed, and they all consented to wait.

The professor gave a large amount of detailed matter concerning his personal experiences, which was quite entertaining—to the board, and he suffered hardships, oh yes, they were numerous.

There will, in all probability, be a change made in the work of Professor Hansen in the very near future. For several years the professor, whose department has been confined to that of horticulture, has been broadening his scope of work until he has assumed proprietorship of alfalfa seeds, which properly belongs to the department of agronomy, but the head of this department has been eliminated by the progressive-ness of Hansen.

It is the intention of the Board of Regents, so it is rumored, to require Hansen to give up his connection with the advancement of alfalfa industry, and devote his time exclusively to his department of horticulture in which there is enough for him to do without encroaching upon the work of other departments.

## Niels Responds to his Critics

Niels was able to answer his detractors. He reported on the 3250 pounds of alfalfa in a four-page pamphlet, published by the Experiment Station in February 1914.

The Semipalatinsk alfalfa I regard as the strongest and most vigorous of the yellow flowered Siberian alfalfa (Medicago falcata). Coming as it does from an 8-inch rainfall climate, I regard it as an alfalfa to supplement rather than to supplant the alfalfas now commercially obtainable. In other words, it should be tested mainly wherever the common alfalfas suffer from lack of moisture or from winter killing.

Wherever the common alfalfas do well my advice has always been, "Let well enough alone." Letters received from many states show that low bottomland and high dry bench land are two different problems for the alfalfa grower.

Plants of this yellow flowered Siberian alfalfa from the Semipalatinsk region, planted by many farmers on high dry

upland in 1911 west of the Missouri River, had proven their ability to stand the severe drought of 1911 and 1912. The plants continued this good record in 1913.

These are perhaps three of the driest years in the history of the state. The fact that such plants have yielded from 8 to 10 and even 12 pounds of green forage per plant has given encouragement to many people who would otherwise have left the country. They have faith in the plants themselves.

As to how far north this will go, some encouraging reports have been received from Canada: F. Maclure Sclanders, of Saskatoon, Saskatchewan, Canada, reports it hardy after three years trial and states: "My own experience with Hansen's alfalfas leads me to

look upon them as the most important agricultural innovation for very many years."

The ounce package distribution to South Dakota farmers ordered by the Regents of Education, closed February 15. After February 15, 1914, orders from any one, including persons in other states, will be accepted. For this work, James W. Wilson has been appointed Trustee by the Regents of Education and all orders for these seeds and plants should be sent direct to him. This is to pay for expenses not covered by the state appropriation.

Price of the Semipalatinsk alfalfa seed, five dollars per pound. (Note: if they sold all 1250 pounds it would amount to \$6250, more than enough to cover the short fall.)

In a follow up article, "Siberian Upland Alfalfa", written three days later, Niels again defended his work with the Siberian alfalfa.

The problem assigned to me by the legislature three years ago and one year ago was not to work with the alfalfas now obtainable in commerce, but to introduce and distribute new alfalfas. This I am endeavoring to do to the best of my ability, and when this is completed, I figure that my share of the work is done.

My work aims to add many millions of dollars to the value of our western uplands. Any attempt to hinder me will be bitterly resented by many people. To the men who are at present misrepresenting my position on the alfalfa question, I have only to say that imaginary interviews furnish no profit.

# **Further Support**

Niels received encouragement and an opportunity to further defend his reputation in a charming article published in Farm, Stock and Home. The author is unknown, but he appears to have been in Niels' corner when he wrote the article. Selected excerpts from his observations appear below.

The train stops at Brookings, S. D. and a brisk walk of twenty minutes brings one to the campus of the Agricultural College of South Dakota.

My purpose was to see one of the millions of Americans who have come from other lands and here have made good. This man is Dr. N. E. Hansen, head of the horticultural department, and known throughout the United States for his work as plant breeder. Dr. Hansen was at home, and wherever he is, he is very much a quiet, unassuming, middle-sized, middle-aged Danish American — much of a scientist and a good deal of publicist.

In his office where there is the work of years gathered into shape, he sat among his books and went rapidly over the items about which I had come to interview him. We talked especially of alfalfa breeding work, for it was that in which I was particularly interested.

Then we walked down thru the frost-bound experiment plots, Prof. Hansen pointing them out as tho they were old and tried friends, this, that and the other tree that had stood by him thru the years, apples particularly, and plums, with ornamental shrubs here and there in the background of our conversation.

#### In the Great Greenhouse

When we had rounded the circle, we came back to the genial warmth of the greenhouse by means of which the South Dakota season is extended into three seasons, and the work of testing and trying out fruits and ornamentals goes on the year around. It is a wonderful place, this greenhouse; unlike anything you see when you visit the city. If we were thinking of ships, we would say this was a man-of-war while the city greenhouse was a merchant vessel. Prettiness has nothing to do with it; utility is everything.

We have heard a lot about the spineless cactus. The breeding of spines off the cactus was done by Prof. Burbank, using the varieties that grow in southern

California. Professor Hansen is trying to do for the northern cactus what Burbank has done for its southern cousin, and if he succeeds another forage plant of value will be added to the list of succulent food plants now available in the northern portions of the United States. All of which leads us directly to alfalfa.

## Alfalfa - Tree and Forage Plants

The alfalfa tree about seven or eight feet high, almost as thick as one's wrist at the butt, sturdy like the oak, waving its green leaves in the January greenhouse air, came to my attention. It had a singularly natural look as tho I had met it somewhere and could not quite call its name. When I thought Prof. Hansen was not looking, I pinched a stem of it and put it in my mouth. Without even turning around, he remarked,

"Yes, that is alfalfa, the kind that grows on the steep slopes of the mountains of Southern Italy where the goats clamber up the cliffs after it, as a boy goes after a pot of jam on his mother's pantry shelf. I found it growing under the greatest difficulties and thought I would see what I could do with it here, perhaps to give our native alfalfa some valuable character which it does not now possess."

The alfalfa tree has a wood harder than any oak you ever tried to whittle with your knife and some day when I am old and stand in need of a walking stick I shall know the kind I want. So we walked on down the alfalfa lanes of the greenhouse past many and many a kind from many and many a land.

### Seed For America's Back Pastures

Then we went back to the office and talked about alfalfa and what it meant. Said Prof. Hansen - I will quote him in thought, if not in exact wording—-

"The problem of the dry country is to get a good forage plant—one that will stand up in dry years as the buffalo grass does, but with more body to it.

"I am not interested in getting plants to take the place of those that always do well in the moister sections, such as the Grimm where it thrives best, or the Montana for irrigated lands, but what I am trying to do is find a plant that will take possession of the semi-arid lands that begin in our own state of South Dakota and stretch eastward to and across the Great American Desert and southward and northward from one side of the country to the other.

"I am not trying to start anything in the fields already taken, but I am trying to seed down the back pasture of America."

# The Quest For Golden Seed

Then he told me of his trip across the ocean and showed me pictures he had taken on that long, tedious, perilous journey into the wilds of northern Asia to the northward of Lake Baikal. Here, many and many a long days' journey from a railroad, traveling under the protection of the Russian government as an American envoy, he found the thing for which he had been looking, alfalfa that lives in the open in a temperature that in summer runs beyond the 100 mark and in the winter down to 40 or 50 below.

The word was sent out that the American traveler was crazy, for did he not want alfalfa seed, and why should he trade good gold for the seeds of a weed unless God had afflicted him? But since the gold was good, the tribesmen fell to gathering alfalfa seed wherever they could, and they came with it in the chaff many and many a mile across the country.

Then thousands of miles from its destination, a threshing floor not unlike that of ancient Biblical times was set up and a little American cleaner rattled busily day after day, sifting the seeds from the chaff until a ton and a half of alfalfa seed had been gathered together.

## **Helping the Common Folk**

"But," I said, "what's the use of all this work, anyway? Agreed that his alfalfa is hardier than that we already have, it is not going to give more than one crop a year."

Professor Hansen smiled a smile I had quickly come to know. He said, "Oh, yes, that is very true, but don't you think folks living on high plains where the seasons parch the land would be glad if even one crop a year could surely be harvested?"

And this was his answer, first, last and all the time, to the criticisms flung against him and against the work he is doing, an answer that seemed to be absolutely sufficient, because it reaches past the little, petty quibbles and sees men and women in the struggle for life and tries to help them.

## By the Fireside

There remained for me the crowning pleasure of the day. The long winter night had fallen; the wind whistled shrilly from the North; we returned once more to the laboratory, put on our overcoats and started towards town and the home where Prof. Hansen had invited me to spend the evening.

Perhaps with the obligations that are laid upon a guest, it would be better that I say little of the hours spent in that home and of the welcome given me. To one whose own people came across the sea not so many years ago, there was something peculiarly fitting in the touch of the old country that pervaded almost everything inside its walls.

It was American, and something more. It had gathered and kept all that was best in the home thought and homemaking of the old land. Pictures hung upon the walls, pictures that traced back many a decade and many a generation. Things that to me were curios, but to the Hansen family were intimately bound up with life's most pleasant associations, were everywhere about the rooms.

We talked on thru the evening until it drew near to midnight, and again and again as he sat amid the things telling of his family and its hundreds of years of achievement, Professor Hansen touched upon what I would interpret as the dominant note of his life's work, the making of life easier and better for the people who must find homes in the dry lands.

Weeks and months have passed away and this has remained unwritten. Now I give it to you as it lies in my memory, many instances dull, some of them forgotten, but out of it stands strong and rugged, the character of one of our later day pioneers.

#### THE WORK GOES ON

#### 1914-1924

"Don't waive a college diploma over a field of tender plants and expect to make them hardy."

**Niels** 

The decade following his trip for South Dakota held both success and failure for Niels. Professionally he accomplished much, but land speculation during the war years caused financial reversals that he was hard pressed to resolve.

Niels had been home about a year before the First World War began in 1914. Most residents of Brookings probably viewed the European conflict as something that the United States should stay out of. But when German U-boats began sinking American ships, and President Wilson called for war in April of 1917, Brookings was swept with patriotic fervor.

People followed the progress of American forces on a large map in the Farmers' National Bank. Service flags appeared in the churches with stars to indicate the young men who were in the war. The Brookings Register wrote, "The longer the war lasts, and the further we become involved in it, the more we shall be adopting military habits and customs."

The paper commented that young women had begun to wear khaki gowns to match the color of military uniforms. War themes in entertainment and speeches abounded throughout the county. War bonds were sold to promote the war. Daylight savings time was introduced as a fuel-saving measure.

The super patriotism that poured over South Dakota resulted in a fierce reaction against anything that was German. The

Brookings Register felt compelled to remind its readers of the loyalty of the German immigrants in the county.

While there may be men of German descent in our country who are doing us wrong, yet the vast lot of those who have come from the land of our enemy and cast their lot with us in this free land, are just as loyal and just as sincere as any man born under the shadow of Plymouth Rock, or whose ancestors threw tea into Boston Harbor.

Notwithstanding further pleas to "base our opinions on facts, not hearsay evidence," yellow paint was daubed on some of the homes of German-Americans who were perceived as less than loyal. German was banned from schools, and sauerkraut became known as "liberty cabbage." Preaching in a foreign language was prohibited in the state, and pastors could give only a fifteen-minute summary to their parishioners in a language they could understand.

In some places in South Dakota, German books, dishes and even family heirlooms were publicly burned. Yankton changed the name of Rhine Creek to the Marne. The editors of German language newspapers in Aberdeen and Sioux Falls were jailed and publication was suspended.

With strong family connections to Germany, Dora had been raised to value her Teutonic heritage. The war years of prejudice and hatred toward all that she had been taught to honor must have been painful.

In contrast, the war served to unite the homeland of Niels. At the peace treaty, after 54 years of German occupation, the southern provinces of Denmark were reunited with the north, and much of his mother's family were freed from an oppressive regime.

# Influenza Epidemic

The worldwide outbreak of influenza that raged through Europe at the end of the war, hit South Dakota and Brookings County as well. The disease, which killed more people than the war, caused public meetings to be cancelled, schools to be closed, and all public functions to be temporarily suspended. Funerals had to be held outdoors and could be attended only by relatives or those who had been exposed. State wide, South Dakota had over 65,000 cases, with nearly 1100 deaths. October, November and December were the most vulnerable months, with a peak of over 20,000 cases and 432 deaths in October. The pneumonia that followed the contagion claimed nearly a thousand more.

### **Land Speculation**

Encouraged by high prices for farm products brought on by the advent of war, farmers began to increase their holdings. Public land available from the state, together with a liberal credit law, which allowed the state to make loans, resulted in a minor land boom as the size of farms grew and others sought to profit from the economic good times.

Niels decided to get in on the bonanza. By 1919 he had purchased 400 acres through land contracts with the state. A year later he acquired an additional 600 acres. The intent was probably to re-sell the land for profit. But his timing was off. Niels and Dora were caught in the growing economic problems of the state.

## **South Dakota Depression Starts**

Before the Great Depression began in 1929, the farm market in South Dakota had already begun to falter. The demand for food in war-torn Europe eased as countries recovered from the war, and prices for agricultural products fell along with a sharp drop in land values. Banks started to fail. The state reclaimed thousands of acres from farmers who could not pay back their loans. Niels had to turn back to the state the 600 acres he had bought in 1920.

More trouble assailed him. In keeping with the immigrant tradition of assisting family members, Niels had helped a cousin, Niels Hornum, to whom he sold his farm near Lake City.

As farm prices dropped, Hornum attempted to sell the farm, but this effort failed. He could neither pay off his mortgage to Niels nor a loan from the bank. Niels paid off the bank loan by borrowing money from his son Carl, who had received an inheritance from his grandfather Pammel. Hornum turned the farm back to Niels.

Niels entered the sad tale of his cousin's troubles in Dora's ledger:

In the early years of my land operations in Marshall County, South Dakota, Hornum sent me \$1200 to keep for him. He had in mind to go "back to the land" sometime. He bought 80 acres of me and later a county loan (school fund) for \$1400. I helped in this also.

He couldn't farm successfully so went back to Cedar Rapids, Iowa to his old trade, printing (linotypist). He also had hard luck (wife kicked by a cow while his wife was pregnant). Hornum's intentions are good. He is being overworked at his trade and still longs for the open spaces of the great outdoors. Probably he will try to get a few acres for a poultry farm some day, or he could develop into a nursery workman.

To add to his difficulties, Niels co-signed a note for \$750 at International Harvester with two other cousins, Thomas and Jeppe Schultz. When his cousins defaulted, Niels had to pay off the note.

# **A Nursery Business Begins**

In spite of all the economic perils faced by Niels, he pursued another financial venture. He recalled his college dream of starting a nursery business. Influenced perhaps by Burbank's successful nursery operation in California, and assured that his son would graduate with a horticultural degree, Niels felt that the time was ripe to start his own enterprise.

In July of 1922 Niels optimistically took out a six-month mortgage on his farm in Marshall County along with two other loans that brought his indebtedness to over \$9000.

Five acres on the east side of Brookings, adjacent to the college experimental farmland, were purchased and planted with nursery stock procured from the Experiment Station. An office building with living quarters in the back and a tree cellar were constructed. More outbuildings were added as the business

grew. Nineteen-year-old son Carl was put in charge of what would become the mail order business featuring many of Niels' introductions.

A successful operation proved more difficult than Niels anticipated. He could not meet the bank payments with his salary of just over \$2000. After three years of paying penalties for extension of the loans, he filed for bankruptcy, a move that allowed him to keep his farm in Marshall County. He and a lawyer negotiated a \$1500 settlement with a payment schedule of \$40 per month for three years which he faithfully paid until he was debt free.

To take his mind off his financial woes, Niels began a novel in 1924, The Return of the Carpenter. The 135 page book could be described as Niels' manifesto of socialistic ideals disguised as fiction, with Christ returning to the earth to set things right. He sent the manuscript to a publisher in 1926, but it was returned to him and he did not pursue the matter further.

### **Dora's Financial Burden**

Niels was not the only one who incurred fiscal jeopardy. Dora had financial problems of her own that revolved around the settlement of her father's estate.

After the death of their mother in 1920, Louis Pammel and she had joint administration of the Pammel estate. The heirs wanted the estate sold and the shares divided equally as the will stipulated. The German Evangelical Church purchased the Madison street home and the store sold quickly. The Pammel farm was the last remaining property to be sold.

Louis and Dora wanted to sell the farm, but land values had fallen in Wisconsin and mirrored the hard times in South Dakota. They could not get the price they felt the farm was worth. They decided to rent the farm despite the urging of their brothers and sisters who wanted the estate settled.

The estate acquired more and more financial burdens. Louis and Dora had to borrow \$3500 to replace the barn and silo after a tornado struck. For several years the rent wasn't paid and they had to borrow more money against the estate to meet the tax payments. Dora fretted about the estate, but left financial

matters in her brother's hands, a decision she would later regret.

#### **Success and Kudos**

The conflict in Europe and financial difficulties did not deter Niels from his main mission. During the war he steadfastly maintained his schedule of plant breeding. Between 1914 and 1917 his creative outpouring generated 35 new introductions.

Following his "lodestar" of breeding hardiness into plants through the crossing of Siberian stock with native plants, Niels carried on the long, laborious task of producing new fruits, grasses, and flowers that would grow in the harsh climate of the Northwest.

### **Plant Breeding**

Plant breeding was a relatively new scientific approach to improving agriculture, based on genetic laws introduced by Gregor Mendel in the early 1900's. Breeders such as Niels began to use numerous methods to develop new varieties, but the primary techniques were selection and hybridization.

Selection is the process in which plant breeders choose plants with desirable traits for further propagation. They select and reselect plants with a desirable trait through successive generations that causes a shift in the population to the desired characteristics.

Hybridization involves crossing plants of different strains or types in order to produce a progeny with the desirable traits of both parents. Undesirable traits also enter the combination, so hybridization is usually followed by several generations of selection.

# Niels, The Plant Breeder

Niels pursued the work with alfalfa and brought out three new varieties bearing his name. Hansen proso was introduced along with a proso-hulling machine that he ordered from Russia. Chee and brome grass, Mongolian wheat, Siberian clover and timothy were added to the list of hardy grains he offered to farmers.

Niels was intensely interested in the State Rose Garden, located just east of the School for the Deaf in Sioux Falls, South Dakota,

the first in the nation. The garden extended for two city blocks. He set aside four acres at the college for the same purpose and insisted that the roses in both places be unprotected in the winter in order to see which plants were the hardiest.

He originated many new fruits including plums, bush cherries, and crabapples, as well as apples. Because land for experiments was so limited at the college, state nurseries were established at various places including Watertown, Eureka, Highmore and Sioux Falls.

Niels also enlisted the aid of interested nurserymen from Missouri to Canada who allowed him to hand pollinate flowers in their orchards. They would later send him seeds of these plants. Niels would then plant the seeds and wait for two or three years to determine which ones were worthy of further experimentation.

In the greenhouse he often top-grafted the trees to form a hybrid. He would cut a slit in the bark of a desired parent tree and insert a bud from another tree. The resulting fruit was then analyzed for desired characteristics.

### Niels, The Scientist

Niels mentioned the scientific basis for his experiments in a treatise, "Four Hundred and Fifty Years," which he wrote in 1943.

The subject of my graduation thesis in 1887 at lowa State College was the "Improvement of Native Fruits" and it became my life work. It is only fair to note that I have never asked anyone what to do next. It is much more interesting to open up a new trail.

A foundation principle all these years is found in "The Variation of Animals and Plants Under Domestication" by Charles Darwin, 1868. Darwin stated: "Had North America been civilized for as long a period and as thickly peopled as Asia Or Europe it is probable the native vines, walnuts, mulberries, crab and plums would have given rise, after a long course of cultivation, to a multiple of varieties."

From the beginning I accepted this principle as a challenge, and now find my experiments in

improving many native fruits confirm the truth of Darwin's statement.

Another scientific law, which Niels was fond of quoting, was De Candolie who had observed,

The northern limits of wild species have not changed within historic times. Periods of four or five thousand years are needed to produce a modification in a plant which will allow it to support a greater degree of cold.

Niels added his own interpretation by commenting,

We must work with Nature and not against. Selection is a sifting process, but does not create new forms. There is nothing new in the sieve. Any species extending over a wide geographical range varies greatly in winter hardiness. Go to a certain region and search for what Nature has done; don't wave a college diploma over a field of tender plants and expect to make them hardy.

He endorsed this theory as he observed in an address before the 1926 International Congress of Plant Sciences:

The real truth of this matter is that we should obtain hardiness from plants that are hardy in the first place.

A study of isothermal lines running around the world, and the study of maximum and minimum temperatures, and annual rainfall, will help to form a judgment as to where hardiness against winter cold and summer heat may be expected in the plants from any region.

### **Doctorate from USD**

Two organizations acknowledged Niels' growing reputation as a scientist in 1917. The rival of South Dakota State College, the University of South Dakota, granted Niels an honorary degree of Doctor of Science. Although he could now legitimately add this title to his name, Niels preferred the more modest designation of Professor, as he was known throughout South Dakota by both colleagues and the farmers who embraced his new products.

That same year the Massachusetts Horticulture Society acknowledged his "eminent service in horticulture" with the George Robert Gold Medal. Niels was the sixth person in the United States and the ninth person in the world to receive this honor that had been given since 1909.

# Niels, The Explorer 1918-1924

Despite the war and personal financial troubles, Niels pressed ahead with his plant explorations. He spent his summers traveling around Canada. These trips may have lacked the drama of his Siberian ventures, but Niels was convinced that this northern neighbor could contribute to the stock of hardy materials necessary for his plant breeding. He explained in an address to the Minnesota Horticultural Society in December of 1919:

As Agricultural Explorer for the United States Department of Agriculture and for the state of South Dakota, I collected many new plants, especially from northern Europe and Asia.

In order to complete this circumpolar work I have from time to time secured seeds and plants from farmers and other people interested in horticulture from many parts of the prairie northwest, including Manitoba and Saskatchewan.

I have traveled a good deal the past two seasons. In 1918 I traveled over a thousand miles by automobile in Northern Minnesota along the Canadian Border and into Manitoba and Saskatchewan, and in the course of three tours to North Dakota, visiting especially the three Indian Reservations, Fort Berthold, Devils Lake and Turtle Mountain.

In the summer and fall of 1919 I made three tours to Manitoba and Saskatchewan, including LePas on the Hudson Bay railway far north of Winnipeg. The last week in October I was wading knee-deep in snow across muskeg swamps in the Riding Mountain district, northwest of Winnipeg, to trace the northern limit of the grape.

Then I went east to study type specimens in the great herbariums in Ottawa, Canada, Harvard University, the Arnold Arboretum in Boston and the New York Botanical Gardens.

Then I went down into northeastern Tennessee where, in a drizzling rain in November, I climbed a mountain over 6,000 feet high. It was a beautiful sight to see the clouds far below in the valley. The bears sometimes come out to help you pick berries, but no bears appeared that day.

On my way home I visited the Field Museum Herbarium of the University of Chicago. The object of this work is to get material for use in fruit breeding.

I call all this circumpolar work in horticulture, as in this way I complete my plan of exploring northern Europe, Asia, and North America. This far northern material gives me hardiness and extreme earliness. The undesirable characteristics perhaps are the smaller size of plant and less resistance to extreme heat.

Niels continued to explore in Canada as he commented in his address to the South Dakota State Horticultural Society in 1923:

This makes my eighth trip in four years that I have made to Canada in picking up material for work at the State College.

Last spring, 1922, I made a trip to Williamsburg in southeastern lowa to gather apple pollen, and from there I went to Canada, over five hundred miles northwest of Win-nipeg. Up there the grass was just coming up and the buds were just beginning to show. I was up in that part of the country where the thermometer has dropped as low as 70 below zero in winter. In the spring it is cool enough for a heavy overcoat and heavy boots.

I went north from Beatty, about fifty miles east of Prince Albert, to Fort LaCorne, a Hudson Bay port on the Saskat- chewan River, then east to Hudson Bay Junction. I found some interesting plants. I have been getting northern material in order to get an excess of hardiness and earliness to work upon with the various fruits.

Some caution is needed for work in a trackless northern wilderness. I have heard of several instances where men lost their sense of direction and got lost. It seems that some men can't keep up when they first get the feeling that they are lost and no meal in sight and no dwelling nearby. They go in a circle and come back to the place where they started from.

There were three hunters who lost their way and one of them went wild when he found out he was lost. A party finally located them and came out and got them, but this man did not recover himself for many weeks afterwards.

It is a pleasure to penetrate the wilderness and find a lot of valuable plants. Another time I hope to go further to the Peace River country after plants. This is really a continuation of the work I have carried on in Lapland, Finland and Siberia.

It might be termed circumpolar work in horticulture. It is evidently a job worthwhile. It is interesting work and the more I get into it, the better I like it. There are some very wonderful plants to be found and I hope to collect most of them in time.

I have collected plant material from many northern points. The thing that concerns me is just what to do with it, after I get it. Owing to the shortage of land we have to make vast bonfires of many thousands of seedlings to make room for more seedlings coming on. It seems that this is a hard year (1923) to ask for more land and money, but I hope something will be done to find room for these new seed-lings. I had to discontinue the work on strawberries because there was no land available.

Niels described another trip to Canada in the address to the State Horticultural Society in January 1924.

I have made ten trips to Canada in the past five years. Last summer, 1923, I went to northwestern Saskatchewan to the "end of steel." I got a lot of small fruits, including one fragrant raspberry, also pin cherries and ornamentals. I pick up anything that I think is worthwhile. What will become of them I do not know.

We went by auto through northwestern Minnesota and southern Manitoba to Icelandic settlements, some sixty miles north of Winnipeg, then out west in the drier country including eastern Saskatchewan. At Souris I sent the auto home with the students that were assisting me, and I went much further north to Big River northwest of Prince Albert.

Late in the fall I went into the extreme western part of Ontario for seed, coming back by way of northern Minnesota. I got a lot of material, and I hope to get a lot more material next season. It is not only the question of going north, but the question of going where there is the least snow in winter. This is following up my tour to Lapland and four tours to Siberia.

#### Fruit Work Continues

His prolific work with fruits was never-ending. In one year alone, 1924, he introduced forty-six new plants, including eight varieties of crab apples and thirty-two hardy grapes.

He was convinced that South Dakota could grow commercially viable grapes. He predicted that the state would one day be noted for this hardy fruit. In a 1927 bulletin Niels spoke of how he began crossing the wild grape of the Dakotas with some of the choice tame grapes.

The work was a success. I now offer for the first time thirty-two of these seedlings. All are hardy at Brookings without winter protection of any kind. This marks the beginning of a new era in grape culture for the prairie Northwest.

Praise for his accomplishment came from an editorial in the Watertown newspaper, Public Opinion. Reflecting that the first thing Noah did after the flood was plant a vineyard, the newspaper wrote that such a thing had previously been impossible in South Dakota and gave this accolade to Niels.

But now comes Doctor Hansen, the horticultural wizard of State College at Brookings, and tells us that at last this imaginary bunch of sweet grapes, grown at home, is a reality. Dr. Hansen says the hybridization is no longer a dream, a figment of the imagination, but an accomplished fact, and that within a short time South Dakota can grow grapes the equal of the New York or Michigan product — grow them on broad acres, by tons, profitable, despite blizzards, sub-zero temperatures and all the other climatic conditions which, up to now at least, have interfered with any attempt to satisfy the inner and inherited longing for a real, good, homegrown grape.

It would be decades before Niels' prediction came true. The 1997 agricultural census noted that nine grape farms were operating in the state. Wineries in Vermillion, Rapid City, and Volga began production of regional wines in the early 1990's.

Niels continued to experiment with native plants such as the sand cherry, a small edible fruit popular among the Indians and pioneers. Of particular interest to Niels was the native plum, which he crossed with Asian stock to produce seven new varieties. His aim in both fruits was to increase the size and decrease the pit.

His efforts in hardy crab apples culminated in the development of two of his more famous introductions — the Hopa and Dolgo crab apples. Six new raspberries as well as the Golda and Anoka apples came into being. He added new varieties of watermelons and muskmelons to his roster of fruits.

Niels labeled his new fruits with terms that came from the geographical locations where he had found the wild fruits he

used in cross-pollination. Thus, plants that had a Siberian parent bore Russian names, such as the Dolgo crab. Progeny of Northwestern stock received Indian names, such as his Zitkala rose, and plants of Asian background were given Chinese names, such as the Ming pear.

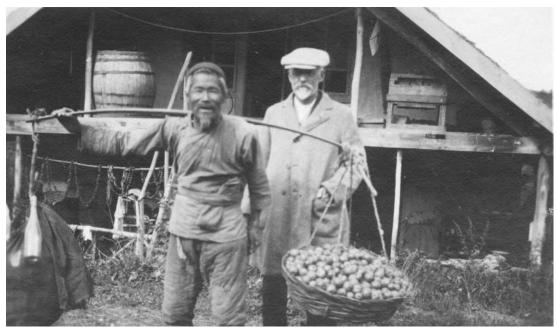
Niels was disappointed with the pears he was breeding. The pears he had brought back from Eastern Siberia and Manchuria on earlier trips looked promising, but his attempts to find a species that was both hardy and resistant to fire blight were proceeding slowly.

Experiments with a wild Chinese pear procured from the Arnold Arboretum in Boston convinced Niels that he had found a species that should be investigated further.

#### On another occasion he concluded:

The world has been searched for hardy blight-proof pears. Some samples I brought from my former trip to Siberia, have proven so resistant to blight that I determined to get more of them. As he stated in Horticulture Bulletin 224, "I thought I could save at least fifty years time by going where I could study these variations in pears."





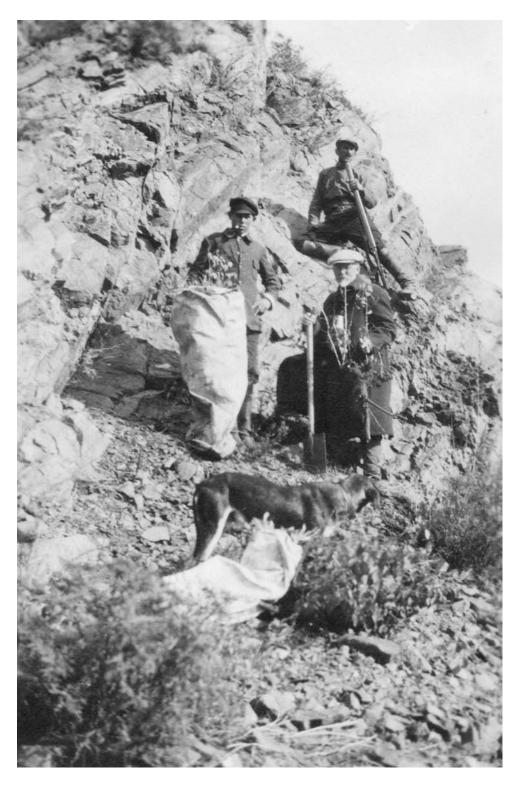


Harbin, China, 1924

Top: With armed guard

Middle: With native worker

Bottom: Passing out fruit to children



Niels explores near Hingan mountains for wild pears and apricots. (SD State Agricultural Heritage Museum)

### TRIP TO CHINA

### 1924

"The same day I saw two bandits marched off for execution."

Niels

Niels set his sights on a trip to China to study these hardy pears, but funding from the United States Department of Agriculture was out of the question. Niels tried to cooperate with the department three days before his trip and applied for designation as a collaborator for the Bureau of Plant Industry.

His application was turned down by Wilson Popenoe, successor of Niels' old adversary, David Fairchild, who had resigned his position and was on a world tour. Popenoe sent a memorandum to Dr. W. A. Taylor, with this caveat,

In view of past experience with Prof. Hansen in work for this office, it is deemed inadvisable to enter into collaboration with him, as suggested in his telegram.

Niels had one remaining resource to finance the journey - the South Dakota State legislature. His approach to the state government for more money came at a time when South Dakota was experiencing serious economic difficulties. Land values were depressed and the price of farm products was declining.

Nevertheless Niels, with unwavering determination, appealed to the State Legislature in 1923 for more funding. When asked how he was able to convince the State Legislature to finance a trip to search for hardy pears, Niels jokingly replied, "You can always appeal to a man's stomach."

Niels had explained the need for better pears for South Dakota on numerous occasions:

When it comes to pears, we are confronted with a new difficulty. The pear tree either winterkills or is killed by blight. Fire blight is a disease of the sap caused by bacteria. It may kill the tree in a few days. The leaves and shoots look as though they had been burnt by fire. Fire blight is found in North America but not in Europe or Asia. Hence, when choice cultivated pears come over to us from South or West Europe, they found two new enemies, the winter and the fire blight.

The legislature that year also expressed their confidence in his abilities by placing him in charge of a \$10,000 expenditure each year for two years to establish branch orchards in Sioux Falls, Yankton, Watertown, Philip, and Eureka, South Dakota.

## China in 1924

China at the time of Niels' visit was embroiled in turmoil. Since the death of the emperor nearly 20 years before, different factions in the country had been vying for supremacy. No central government controlled the country. Warlords governed the different provinces and fought one another. Bandits roved the countryside. Chiang Kai-shek, as the leader of a national army, was fighting for control of two southern provinces. Into this disturbing atmosphere Niels fearlessly began his journey. Since most of the fighting was in the south, he may have felt the war would not disturb northern China where he was headed. He was determined to find a hardy pear.

Niels wrote about his trip to China on three different occasions. The following is a compilation of his observations from the three manuscripts.

I left Brookings July 26, 1924, on my sixth tour to foreign lands in search of new seeds and plants. I sailed from Seattle on July 31<sup>st</sup> on Steamship President Grant on the Admiral Oriental Line which is owned by the United States government. I arrived in Yokahama where I found many traces of the recent earthquake and the work of rebuilding was still in progress. Much remains to be done.

I went by railway south to Shimoneseki, Japan, and sailed to Pusan, Korea. At Seoul, the capital of Korea, I visited the Heavenly Gardens of Prince Li. I found pears had begun to come into the bazaars in large quantities, but this part of Korea was too mild in climate to help us. However, I brought samples with me as I thought they might be of help further south.

The next stop was Mugden, China, and the next place, Harbin, China. If you will observe the map of eastern Asia you will find that the three northern provinces of northern China, called Manchuria, extend up like a huge wedge far north into Siberia. This is really Chinese territory but the Russian influence has been very strong ever since the Siberian Railway went through.

The War Lord of Manchuria, Chang Tso Ling, recognized Soviet Russia, and later the Soviets were given a fifty-fifty percent representation on the Board of Directors of the Chinese Eastern Railway which is part of the mainline of the Trans-Siberian Railway line from Moscow to Vladivostok. The exact meaning of this you can figure out for yourself. The actual effect of it is that the Siberian Railway will operate more efficiently than it has in the past few years, clear through Siberia to the great harbor of Vladivostok.

The Chinese Eastern Railway had three Agricultural Experiment Stations, Anda, Echo and Harbin. I made Harbin my headquarters.

At Harbin I met a number of Russian scientists who had fled from the revolution and found a new home in Harbin. One of their activities was the organization of the Geographical Society. My visit stimulated interest in apricots and other horticultural plants. A brisk trade with America soon started, as there was a demand for seeds for nursery budding stocks.

From Harbin I went east and west on the Chinese Eastern Railway, which forms part of the Siberian line

for nearly a thousand miles. I found the western limit of the pear a few miles east of Harbin.

I went about from village to village up in the mountains, back and forth, until I found pear trees and got the Chinese to bring in pears as they ripened. The main work was in the region about fifty miles east of Harbin. The Chinese cut down other timber in the mountains, but leave the pear trees as they furnish an annual supply of food.

Many thousand pounds of pears were collected and brought in by the Chinese. The country is so rough that most of the transportation is done by the Chinese who carry merchandise by means of a yoke with a basket hanging on each side. A Chinese man can carry 150 to 200 pounds of pears on his back a distance of seven or eight miles or more.

I went over these pears personally and picked out a lot of large fruited specimens and saved the seeds separately. Sixty-eight pounds of seed were saved.

I went west to the Soviet boundary at the station Manchuli, also called Manchuria. This is where the Russian and Chinese customhouses are located on the boundary and is in a very sandy region. It is practically an arm of the Gobi Desert extending across the Siberian Railway. Here there were no pears.

At Anda, the western station, a few stations west of Harbin, I found that most of the land had been taken by the natives. Only a small area, mostly buildings, were left for dairy experiments. Anda is the world's largest primary market for soybeans. I saw acres of stacked-up bags of beans, covered by matting. Many bags are brought in by the Chinese in winter when transport by sleigh is easier than when there is deep mud.

### **Bandits Threaten**

The Chinese War broke out very soon after I arrived and many trainloads of Chang Tso Ling's soldiers were sent south towards Pekin. This gave the bandits better opportunity in the mountains. These roving bandits were very thorough in their depredations, taking when possible not only the money, but also the clothes and often the life of the victim. That fall it was necessary to have an armed escort in all field excursions.

At the time of my visit to Echo, the most eastern station, near the East Siberian border, the director was nursing his broken arm, caused by an iron bar in the hands of a Hung Huitsie bandit. Near Harbin, the bandits had come to steal all the cattle. It took a lot of soldiers sent out from Harbin to drive them away.

The Chinese military control had been getting looser all the time, since the Russians were crippled in the World War. So I made it a practice to have several men with me in the mountains. The military authorities do their best to curb this banditry and in one place executed seventy-two men at one time. The same day I saw two bandits marched off for execution.

Niels told his family the grisly story of how the road into one village was lined with the heads of bandits impaled on spikes as a warning to the marauders. Fearlessly he commented, "But I kept on with the pear work."

## **Hardy Apricots**

As usual Niels had his eye out for more than the plants he had been sent to procure. He noticed some apricots growing in the same region and postulated that they would be as hardy as the pears. As Niels stated in an article, "The North Pole of Apricots", written in 1938:

In Harbin I found good apricots and gathered seed. It is a common forest tree, strong, vigorous, drought-resistant and bearing abundant crops. Scattered

here and there, much like our wild plums, but much taller and larger in every way.

From this Harbin region apricot, I grew 45 seedlings. The trees came into bearing early and were of strong growth. They are a beautiful sight in bloom, the large white flowers with distinct pink tinge appearing early before the leaves. I introduced them first in the spring of 1934 as the Manchu apricots, 1-23. The name refers to the old Manchu conquerors of China.

My visit to the Harbin region stimulated local interest among the Russian scientists and a good trade in apricot pits has been established with America and Canada. In 1927 apricot seed was sent from Echo to the Agricultural Experiment Station at Morden, Manitoba. From this seed came the good apricot now named the Scout.

The importation of this hardy apricot seed has been stopped by the war. Thousands of the trees have been destroyed in the timber clearing work of the Japanese invader. But enough of the apricots have reached America and Canada so that the supply of seed for nursery stocks will soon be met by homegrown seed.

#### Other Plants from China

Niels climbed into the mountains to find more hardy plants.

A few miles farther east in the Hingan Mountains where Siberia, China and Mongolia meet, I made a rough mountain climbing tour and gathered some wild relatives of the peach and almond in the arm of the Gobi desert, near the Soviet boundary on the east. The trip was in a region infected with Chinese bandits, so I had to hire extra men to help me in the mountains.

The peach and almond grow under severe winter conditions, at least fifty degrees below zero in winter. I dug some out of crevices in the rocks alive and

flourishing. I hope these will be useful for experimental work.

I found some fine plums, cherries, and some intermediate types between the plum and cherry. These, I believe, will be of value.

And again I found peonies growing wild. So far as I know, I am the only member of the American Peony Society who has found the common peony growing wild.

I found many other plants, especially large wild grapes, some good soy beans and Kaoliang, and some interesting muskmelons from the Chinese villages in the mountains. Of some of the muskmelons, the shell was so thin that it was eaten the same as an apple.

I also found the seed of a northern spiny water lily. The leaves were fully four feet in diameter, and I found whole lakes filled with them. As far as I know, this locality near Harbin, north Manchuria, is the farthest northern place it has ever been found.

#### Time To Go Home

I found I was more or less bottled up for awhile. From Mugden to Pekin the railway was taken over so I could not return via Pekin. The only way was to go back the same way I came. As soon as the pear season was over I packed up and came back through Korea.

I could not catch the steamer at Kobe In Japan, but caught up with it at Yokahama. Both tours were on the steamer Admiral, on the American government line. These steamers are very comfortable and the accommodations excellent. I arrived home October 17, 1924, after twelve weeks of hard, strenuous work.

It was a very interesting experience and I am happy to say I got back without any accident. My knowledge of several languages was of great help and I could not have made the tour without my previous experience to help me. The work of plant exploring is difficult, but very interesting and not without danger. By going to northeast Asia I believe I saved fifty years time in getting pear culture on a successful basis, because these I believe are the hardiest pears in the world. I believe this means a new era in pear culture, not only for South Dakota, but for the entire Northwest.

### **AFTER CHINA**

### 1925-1930

"Life in Brookings County underwent remarkable transformation."

### **Brookings County History Book**

The explorer returned to a city that was changing. By the midtwenties, Brookings had grown to a population of over 4600. The <u>Brookings County History Book</u> claimed, "Life in Brookings County underwent remarkable transformation (in 1920-1930) — perhaps the greatest amount of change ever witnessed in a similar period of time in its history."

Old ways of doing things surrendered to "modern ways." Skirt lengths went up to the knees, and women cut their hair. More automobiles appeared and caused a parking problem on Main Street. County roads were graveled; farmers used more mechanized machinery and adopted modern farming methods. Homes boasted additional conveniences and even farmhouses installed indoor plumbing. Radio put the rural community in touch with the world. "Talkies" replaced the old silent films. Niels was an avid fan and faithfully attended shows at the Fad, Pleasant Hour or State Theater.

The college added buildings to meet its growing needs. A men's dormitory, a new library, an outdoor theater, and the campanile contributed to the overall design of a modern-looking campus. The campanile, which stood 165 feet tall, was the gift of an alumnus, Charles Coughlin.

Two amendments to the United States Constitution contributed to a different way of life for Brookings residents in the '20's. The 18<sup>th</sup> Amendment that prohibited the sale of intoxicating

beverages and the 19<sup>th</sup> Amendment that gave women the right to vote were signed into law. Niels, a temperance man since his early teens, no doubt approved of the first measure, and just as probably approved of letting women vote. His home country Denmark had granted universal suffrage in 1915.

As the town changed around them, Niels and Dora maintained their "old fashioned" ways. Niels sported the beard and mustache that he had worn since the turn of the century and continued to dress in three-piece suits. Dora persisted in ankle length dresses and deplored the amount of flesh flaunted by young women. Upon observing that her daughter was sewing a sleeveless nightgown for her trousseau, Dora made her put in sleeves. She once told her daughter-in-law, "No one has ever seen my arms above the elbow—not even my brothers!"

### **Dora's Debt Increases**

After several years of struggling to sell the Pammel farm, Louis and Dora declined an offer in 1928 of \$35,000. They considered the offer too low. Their lawyer, Otto Bosshard, suggested that Dora and Louis borrow money, buy the farm, and pay off the heirs. He optimistically predicted that they could sell the farm in the future and make a profit.

Dora and Louis were both tired of the management problems and the impatience of the heirs over the postponement of a settlement, and so Dora and Louis borrowed \$15,000 to pay off the heirs.

Dora confided in a letter to her brother,

I don't think we need to tell them (the heirs) if we buy it. I don't know what the legal phase of it is. If they want the farm sold and we buy it they can't complain. We might get some knocks but we get them anyway.

In the fall of 1929, just days after the stock market crash, the last of the heirs turned over their shares of the estate. Dora and Louis were now joint owners of the Pammel farm.

# The Family Grows

The marriage of Niels' daughter Eva to David L. Gilkerson in 1921, and the marriage four years later of son Carl to Gladys E. Manbeck, led to the birth of four grandchildren. Eva had three children: David (b. 1924), Laura (b. 1928), and Carol (b. 1929). Carl had Paul (b. 1928). Eva and her husband lived on a dairy farm in Armour, South Dakota while Carl remained in Brookings to conduct the nursery business.

Carl's mother-in-law, Lillie Ann Manbeck, who was finding it hard to find employment, came to live with his growing family. He and wife Gladys employed her brother-in-law, C. M. Vandervelde, in the nursery business. Vandervelde, along with wife Hilda, moved into the cramped living quarters of the nursery office building. A year later, after the birth of their first child Alice, the Vanderveldes rented Niels' farm.

### The Work Continues

Several years would pass before Niels would realize any fruit trees from the seeds he had collected in China; however, in 1925 he did introduce a grape he had found near the Sangari River in China and, from previous experiments, he was able to bring out four new currants. Two years after his trip to China Niels introduced four hardy pears, a muskmelon, a walnut tree and Hansen white-seed proso. Fifteen new roses were created a year later.

An article, "Folks Not Afraid of an Idea," in the March 1925 issue of Better Homes and Gardens featured Niels. The magazine listed many of his accomplishments and must have encouraged Niels in his work.

#### **More Honors**

After serving thirty-three years as Secretary of the South Dakota Horticultural Society, Niels was elected President in 1928, a position he would hold for three years.

In 1929 Niels received one of the highest horticultural awards in the world, the Marshal P. Wilder Medal, given by the American Pomology Society for "new fruits."

He kept up his contacts with his colleagues in the academic world and submitted two papers to the International Congress of Genetics that were published in 1926 and 1927. One treatise

dealt with fruit breeding and the other discussed taming native fruits. He also attended the American Association for the Advancement of Science in New York City. He took advantage of the trip to visit various scientific institutes and experiment stations on the way home. Continued effort to keep abreast of the latest scientific discoveries probably led to Niels' next trip abroad.

### TRIP TO EUROPE

### 1930

"The best site in all the world is the Statue of Liberty in New York."

#### **Niels**

Niels was an official delegate to the Ninth International Horticultural Congress held August 1930 in London, England.

He represented the State of South Dakota, South Dakota State College, and, remarkably, the Department of Agriculture.

The Department had reversed its opposition to Niels under the new Secretary, Arthur Hyde. It granted him status as a Collaborator in the Bureau of Plant Industry and gave him a letter of introduction that stated he was attending the Congress "in connection with this Department."

He and Dora took advantage of this conference to include a trip to Germany for Dora. At the urging of her family, including brother Louis Pammel, Dora borrowed \$400 from Eva and spent several weeks visiting relatives in the country where her parents had grown up.

Niels presented a paper, "Fruit Stock Where the Mercury Freezes" and also served as an interpreter. In a report to the South Dakota State Horticultural Society, Niels wrote of his tour to Europe in 1930:

The great need of breeding horticultural plants for resistance to drought and heat was surely emphasized the past summer, 1930, which was a record-breaker for heat and drought over a large area of the United States. The native plants and

those from similar climates of the Old World showed their superior resistance. No time should be lost in this vitally important work of plant breeding.

As population increases, we must look to Horticulture as one important way of making a living on a smaller area of land.

Personally, I missed the heat and drought because the summer was spent in Europe where the season was unusually cold and rainy. My wife accompanied me this time. It was her first tour of Europe. This was my seventh foreign tour; alto-gether it makes twelve times across the Atlantic and three times across the Pacific.

The tour began July 10 and ended October 16, 1930. At the International Horticultural Congress at London, August 7 to 15, I presented a paper on Hardy Fruit Stocks. Plant propagation was the main theme of the Congress this time.

The following week, August 16 to 23, was devoted to the Fifth International Botanical Congress at Cambridge, England. At the Horticultural Congress there were about six hundred delegates, and at the Botanical Congress about twelve hundred from some sixty countries of the world. The latest in many lines of thought was brought out.

While in Europe, many gardens, parks and horticultural exhibitions were visited. I visited the Kew Gardens and the Kew National Herbarium, both the largest in the world; also, Wisley, East Malling, Long Ashton, and Merton, four of the leading horticultural stations in England.

The main object of the tour was to study the artificial modification of germ cells in plants, especially the latest cytological investigations in the modification of chromosomes in cultivated plants.

The leading institution for this work is the John Innes Institute for Horticultural Research at Merton, in the

outskirts of London. An income of \$100,000 a year makes possible a large amount of excellent work in this line.

The problem of heredity in plants was studied at the Universities of Hamburg, Munich, and Berlin. At Berlin, especially Moencheberg and Dahlem, the two experiment stations for genetics research, were visited.

The work of some of the leading rose-breeders was studied and a visit paid to the two largest rose gardens in the world — in Paris, the Roserai de l'Hay, where 10,000 varieties have been tested, and at Sangerhausen, Germany, where 9,000 varieties have been tested.

The two gardens cannot be compared because the one in France is laid out in the formal, architectural style of the old French emperors, while the one at Sangerhausen is laid out in the modern informal or park style.

Both are doing excellent work. A special study was made of the rare, new and old, varieties, and botanical species. Seeds were secured of many of the latter. In England, the cytological work in rose breeding was studied at the botanical gardens of Cambridge University, especially the differential polyploidy investigations of C. C. Hurst.

The human spirit has flowered in the Fine Arts. In music, the purest of the Fine Arts, we heard the oratorio, "The Messiah," sung by 2,500 voices in an evening's concert at the Fourth International Poultry Congress in London.

The art galleries are the high point of any European tour. Chief among the art galleries visited was one in Dresden, containing the marvelous Sistine Madonna by Raphael, considered by many to be the world's greatest painting.

Sunday, September seventh, we attended the world famous Passion Play, given every ten years the past three centuries at Oberammergau, in the mountains of southern Germany, near Munich. Five thousand people completely filled the auditorium and two thousand more had to wait until the next day. These two visits were eminently worthwhile.

One interesting thing to note in Europe was that despite the economic situation, the work in agricultural and horticultural research was emphasized more than ever. Much valuable work was being done in poor buildings, but the money was devoted chiefly for the work in the laboratories and in the fields.

The European nations find that agricultural research pays and brings quick returns. They are content also to wait for the solution of long-time problems. Many problems require years of research for their solution and the work cannot be hurried.

The present light indicates that germ cells in plants can be modified in many ways, such as selection, methods of propagation, heat, cold, chemicals, radium, and x-rays. The work observed was of intense interest and it is to be hoped that South Dakota will furnish money for work in laboratory and field so that the solution of the chief problems may be hastened.

I found many new things of interest in my trips and hope to apply as much of it as is possible to the horticultural problems of South Dakota.

The following countries were visited: England, Germany, Holland, Belgium, France and Eastern Canada.

I have often remarked that the best sight in all the world when returning from a European tour is the Statue of Liberty in New York Harbor.

### THE DIRTY THIRTIES

### 1930-1934

"That everything is at such a low ebb, no one can help."

#### **Dora Hansen**

When Dora and Niels returned from Europe, they found living conditions in South Dakota had worsened. During the next few years everyone in the prairie state faced a multitude of problems all at once - depression, drought, dust storms, and grasshoppers, a period that came to be known as the "Dirty Thirties."

For those who endured, a certain toughness and pride evolved. They sensed they were involved in an epic drama, and the survivors pulled together to help each other. Children, who were on the periphery of all that happened, have commented on their parents' "depression mentality" and noted the frugality and work ethic that evolved from a time when resources were almost non-existent and everyone had to make do with less and less.

## Drought

Adequate rain had not fallen for several years when the driest years in history overtook South Dakota in 1931-1934. The lack of rain devastated the farmers. Some families lost their land, some left the state. Those who stayed could not produce good crops. Pastures were as parched as the farmland, and food for cattle was scarce. Emaciated cattle were bought by the government for \$10 to \$20 a head and destroyed. By 1933 the government began paying farmers not to produce, in order to bring supply into line with demand. This program was often the only cash flow for some farmers.

Eva, living on a dairy farm in Douglas County, told her family of the trauma she suffered when she had to tell weeping mothers that the cows had not produced enough and she had no milk for their children.

Carl planted potatoes in the nursery and sold them off the back of a truck for \$1 a bushel. He hunted rabbits in the fields for meat. The nursery stock suffered from lack of water and one of his fliers promoted proso as the answer to the farmer's plight.

Gladys, Carl's wife, wrote in February of 1932 to her sisters, describing the horrible conditions of the farmers in their home county of Douglas:

There have been thousands of dollars donated this past month to keep cattle and horses alive. C. Altenburg sent a letter that was read over Yankton station that 1,400 and over, horses and cows have died in the small district of Douglas County since the first of the year, and that was over a week ago.

There is no feed on the farms to be bought and not money to buy with. Many farmers are keeping their children alive on the returns of the cream check, which isn't much when the cattle aren't fed well. Sheep and chickens are dying because of starvation, and the other livestock eating the carcasses.

## **Niels Optimistic**

In an address to the state horticultural society in January 1932, Niels struck an unusually positive note amid the bad news:

The year 1931 will long be remembered as a record-breaking year for heat and drought over a large part of the United States. In addition: low prices and grasshoppers. So all in all, 1931 was a lean year.

The limits of resistance of plants to unfavorable conditions can best be studied in years like 1931. The two problems of resistance to heat and drought I undertook to study in a course of several field tours covering several thousand miles by auto, especially in the western uplands of the State.

As a result of these tours, I wish to record my optimistic belief in the future of the western uplands. With proper varieties and proper methods, future success is sure.

#### **Dust Storms**

The drought created an era of "dust storms," when high winds carried the loose topsoil across the state. At times dust blew in from Montana, North Dakota or Canada. Sometimes the wind blew steadily for days. At other times, the wind blew fiercely for several hours and was likened to a blizzard.

These tempests presented a myriad of problems for the homeowner.

Unable to keep the dust out of their homes during a bad blow, housewives would sometimes shovel the dirt out by the bucketful. Lamps had to be lit in the middle of the day so ordinary tasks could be finished. In open country the stinging topsoil drifted up against buildings and fence posts like snow.

## Grasshoppers

Extremely hot weather added to the plight of the farmers, but the worst result was the hatching of millions of grasshoppers, which flew in great multitudes over several miles and promptly ate everything in sight. Grass, grain, clothing hung out to dry, even bark on trees disappeared wherever the hordes descended.

No one could stop them, and people had no choice but to wait and pray for cold weather.

A bleak description of a drought stricken area is quoted in the **Brookings County History Book**:

All around grasshoppers jumped and flew. Far out on the plain, three cows were standing, heads down. A horse slept on his feet. No tree. No streams. No grass. No clouds. Nothing. Just land, land, miles and miles of it. Flat, dry dusty, an arid uncharted desert of land. Not a living thing as far as the eye could see.

### **Niels Has A Plan**

The depression that swept over the nation, particularly the drought that plagued the Midwest, gave Niels an opportunity to offer his own solutions to the problems. He studied the problem from many perspectives and stepped out of the role of plant breeder and professor to present a set of far-reaching ideas at the annual meeting of the State Horticultural Society in January of 1934. He expanded on his plan over the next two months in a series of articles.

As Niels saw it, the depression was one of abundance instead of scarcity, of under-consumption rather than over-production. The machine had replaced men and there was not enough work for every-one. The unemployed do not buy goods and this caused an economic crisis. He totally agreed with the Roosevelt administration that increased the role of government in the economic hard times under the political title of the "New Deal."

Niels reflected on the relationship of horticulture to the National Recovery Program. He talked of producing better livestock and planting drought resistant crops. His plan called for instituting federal housing, public works, pensions, and medical care in the rural areas.

# A Startling Idea

In view of the droves of families that were leaving the plains states, the most startling of his ideas was to populate the western lands with a mass migration of unemployed city workers.

In spite of the drought conditions that prevailed, he felt the western states, if planted with the right crops, could produce enough to sustain an increased population.

Niels believed the answer to slums and homeless people was for the government to take over the western lands of the United States and rent the land to people displaced by machines or living in dire circumstances.

It will help greatly if several millions of people can be transferred from overcrowded regions out into the vast lands of the West where they can be selfsupporting. It is also the best way of producing a host of strong men. We may need them in our next war. Military records will substantiate the fact that the tall, strong men come from the wide-open spaces where there is plenty of room, rather than from the crowded slums of the great cities.

He even had a plan to eradicate the grasshopper. He suggested that people be paid a bounty for grasshoppers.

## **Depression Times In Brookings**

An editorial in the Brookings Register counseled, "Let us ask ourselves whether or not we have lost anything real. Many of us have less to live on, but more to live for. Panics may wipe out profits, business depressions may wipe out dividends; they cannot touch a man's greatest possessions—his courage, his honesty, valor, or honor."

After the election of Franklin D. Roosevelt in 1932, the federal government began a "New Deal." South Dakotans, who generally deplored accepting charity from others, embraced the programs that gave monetary relief to the nation. At one point in 1934 South Dakota had 39% of its population on welfare, a greater percentage than any other state in the union.

Work related programs such as the Works Progress Administration, WPA, sponsored a plethora of employment, ranging from public works to writers' projects. These jobs brought needed money and pride into the families of Brookings.

People entertained themselves with radio, movies, band concerts, and high school sports. Circuses came to town. A new public swimming pool opened and families engaged in activities that required little or no money such as cards or jigsaw puzzles.

The Brookings Register commented, "Faith in each other and in the ability of the government to weather the storm of the continued economic distress, and faith that after a while we shall emerge to a better day, will no doubt help a great deal in these times."

South Dakota State College faced the same economic shortfall as the rest of the state. In a draconian measure, the Legislature in

1933 cut the appropriations for the college by nearly 50 per cent. This act followed reductions that had been going on since the Depression began. The Board of Regents in its Twentieth Biennial Report quoted one of South Dakota's public men, "Higher education is a luxury. We can get along without it."

As a result of the 1933 action, classes were consolidated, some courses were eliminated and needed equipment was not purchased. Dr. Charles Pugsley, president of the college, saw his salary reduced to \$7,000. The salaries of others were cut a minimum of 10 per cent. Pugsley reported that 41 staff members resigned because of the reductions in salary.

### **Financial Trouble For Dora**

Dora and Niels, living in town on a fixed income, although reduced, did not have to endure the devastation of the countryside, but Dora faced a growing financial crisis. She had an independent source of income from a farm near Eden, SD, but the drought had taken its toll and the renters paid less and less for the land.

To make matters worse, she discovered after her brother Louis died in 1931 that he had encumbered the Pammel estate with additional debt. Otto Bosshard, the family lawyer, explained that the estate notes of \$7200 and Louis' personal notes of about \$1700 were merged in August of 1930 and that the final note of \$8900 was all against the estate.

She and her sister-in-law, Gussie, were also responsible for the \$15,000 mortgage Dora and Louis had arranged six years before. In addition, Dora and Gussie were accountable for the taxes on the farm.

The bank demanded that the debt be in the form of a mortgage, not just personal notes. Neither Gussie nor Dora had means to pay off the mortgage, or interest payments, or taxes. After Gussie's death in 1935, her children, who stood to gain from the sale of the farm, could not help their aunt with any financial support. The bank finally claimed the farm, and Dora's dream of an inheritance died in the Depression.

Dora wrote to her niece Doris Pammel, "That everything is at such a low ebb, no one can help. In the history of the world there never has been anything like it before."

### **More Financial Problems**

Additional financial troubles surfaced in 1930. Niels' cousin, Jeppe Schultz, who had given a second mortgage on his farm to Carl and Eva, threatened to let the whole farm go back to the state. Dora explained in her ledger:

In the spring of 1930, Jeppe Schultz intended to let his farm go back to the State as he had not kept up his payments to the Rural Credit Board, thereby wanting to <u>ditch</u> the second mortgage which Eva Gilkerson and Carl A. Hansen held, which amounted to \$5000.

The rural Credit Board notified Eva Gilkerson and Carl Hansen about it. N. E. Hansen, Mrs. N. E. Hansen and Carl Hansen made a payment to the Rural Credit board, so their (sic) was no foreclosure. (Note: Niels, Dora and Carl paid the interest on the mortgage, \$400).

Jeppe Schultz then agreed to settle the second mortgage for \$2750. He agreed to pay \$230 cash and 2500 lbs. of proso, which he valued at \$120.

## **Happier Times**

The one bright spot in Dora and Niels' life was the birth of four more grandchildren. Eva and husband David now had four children after the birth of daughter Jane (b. 1932). They continued their dairy farming operation in Douglas County with the help of a hired man.

Carl and Gladys had three daughters, Helen (b. 1931), Carlene (b. 1935), and Joy (b. 1936). Niels and Dora traded the farm in Marshall County for a small home in Brookings, which they rented to Carl and Gladys to house their expanding family that now included four children, Gladys' mother and a hired girl.

In spite of the depression, Niels and several family members went to the 1933 World's Fair in Chicago. Here Niels visited his widowed sister Helene Olsen. Her son Marius took Carl, David Gilkerson and David, Jr. to a professional ball game.

Niels mourned with his sister Kristine and husband Jens Rasmussen who had suffered the loss of three of their adult children, two from pneumonia and one from diabetes. Out of their fifteen children, only six now survived.



Niels with Ivan Michurin, 1934, son Carol in back row

### TRIP TO RUSSIA

#### 1934

"I was surprised to find that some of my bulletins had been translated into Russian."

#### **Niels**

In the midst of the drought and depression word came from Russia that the government wanted Niels to return for another expedition. Not for exploration, but for advice to the growing plant breeding experiments that the Lenin Academy of Science was promoting.

Scientists, who were mindful of Niels' work with Siberian plants and his earlier explorations of their country, were anxious to get his expert opinions and suggestions which could further their research. Since he had been there they felt he could give insights about the region that they wished to investigate. They were particularly interested in the area where he had found the red-fleshed apple in 1898. Niels explained in an article, "Red Apples with Red Flesh and Red Flowers,"

In the spring of 1933 I was invited to go on a Soviet government expedition in the Alma Alta region to study the distribution of the red-fleshed apples. I could not go, but sent all the notes I had on the Djarkent and Kuldja distribution. The following year, 1934, I was invited to go to eastern Siberia to study the Siberian apples, and this invitation I accepted.

The Soviet government would pay his expenses as Niels explained in a letter to the Director of the Experiment Station, James Wilson.

I have received an invitation from the Leningrad Academy of Science, which represents the administrative part of Agriculture in Soviet Russia, to join an expedition to the Amur region of East Siberia to gather seeds of agricultural value.

They offer all expenses paid in the U. S. S. R. There will be no expense to the College, and it will enable me to bring back a large lot of new seeds from the northern limit of cultivation. I am sure they will be of value to South Dakota. It will afford an opportunity for me to study the latest developments in experimental agriculture in the new experiment stations in Siberia and else where in Russia.

The tour, I think, will be over when the snow begins to fall. I would return as soon as possible. As in all my other tours, I ask that my salary be continued for the entire period, because I will be engaged in work that will be of help to all the horticultural projects on Adams, Hatch, Purnell and State funds. (His annual salary for 1934 was \$2676.)

The President and Board of Regents of the college, perhaps mindful of Niels' earlier budget deficits, approved the request with the proviso,

This is with the distinct understanding that no expenses of any sort in connection with this trip are to be paid by any funds under the jurisdiction of State College or its various divisions."

Niels, at age 68, eagerly welcomed a chance to once more retrace his steps into the heart of Siberia. He took Carl along as a technical advisor, and the two sailed from New York, June 27, on the Aquitania, and returned on October 29, 1934.

The journey into Siberia equaled the 1908 trip. Niels, Carl, and the official delegation traversed thousands of miles, crossing nearly all of Russia and Siberia. They went from Moscow to Chita, near the Mongolian border, and back again.

Unfortunately the 1934 trip to Russia was not documented as thoroughly as some of his other trips. No diary or summary

exists other than Niels' unpublished book, <u>Russia as Observed by an Agricultural Explorer</u>." He wrote in the Foreword:

In 1934 I was invited by the Soviet government to join an agricultural exploration tour to East Siberia. I was to confer with the agricultural authorities, visit collective and state farms and to offer suggestions everywhere as to what should be done to build by agriculture and horticulture.

Especially in Siberia where the aim is to build up the country so it will be a permanent home for many millions of people, enough to resist encroachment from Japan.

This book is a series of sketches written as a summary of 1934 conditions in Soviet Russia. I have made seven tours of agricultural exploration to Russia and one other tour to Western Europe.

The seventh tour, from which I returned October 19, 1934, was one of four months. I was accompanied by my son, Carl Andreas Hansen of Brookings, South Dakota, a graduate of South Dakota State College, who was appointed technical assistant.

I was appointed Vice-Director of the expedition and as such I was entitled to one third of all plants and seeds collected. A large collection of plants and seeds was made in this expedition. The tour extended into eastern Siberia, to a point approximately due north or Pekin, China, at the headwaters of the Amur River. This territory is closed at present owing to the danger of war with Japan.

We obtained a special permit to enter the closed area from Irkutsk to Shilka. Shilka is on the northern branch of the Siberian railway, approximately due north of Pekin, China. I did not try to go any farther east as this would have meant a permit from the next province, and the plant hunting did not make it necessary to go any farther east. Many experiment stations and collective state farms were visited. These collectivized farms are part of the Soviet Union plan for solving the farm and unemployment problems. Many conferences were held with agricultural science leaders of the Soviet Union.

We also attended the 60-year jubilee for Ivan V. Michurin, the great Russian plant breeder. Michurin was then eighty years old, and the celebration was made a national holiday.

Special attention was paid to dry-land problems in agriculture, especially of the northern regions. The dry land problems are pressing in the Soviet Union as well as in the United States.

I prepared and sent to the authorities of the Soviet Union a program of correlation for use in solving their agricultural problems, especially the northern regions, which was published at Moscow by the Soviet government in four thousand copies.

I was surprised to find that some of my bulletins have been translated into Russian and that some of my hybrid fruits were under cultivation.

It is a pleasure to acknowledge with many thanks the cordial reception which awaited us everywhere.

## A New Discovery

Although exploration was not a feature of this expedition, Niels and Carl kept their eyes peeled for a particular elm tree that Niels had spotted on an earlier trip. In eastern Siberia, Niels and Carl found this plant that they brought back as a possible lawn tree for the northwest, a tree they called the Hansen Manchurian Elm. Niels remarked in a manuscript, "Cold Resistant Siberian Elm," that he had noticed this tree in 1924 while in Northern Manchuria.

I hoped at that time to determine sometime how far north this tree was found native. This opportunity occurred in 1934 when on a tour to East Siberia. My son Carl A. Hansen was the first to find the Siberian elm at Shilka on the northern branch of the East Siberian railroad, north of the Amur River.

It was too late to get seed, but a number of young trees were dug in the high hilly region of Shilka. Shilka is about 830 miles due north of Pekin and 1380 miles north of Nanking. These trees should stand 55 to 60 degrees below zero. When these trees reached Washington they were placed in quarantine for a year to determine the susceptibility to Dutch elm disease. They were found free from, and resistant to, Dutch elm disease.

The twenty sturdy young trees were went to the SD Experiment Station, Brookings, where they were received December 7, 1935. It is planned to increase as rapidly as possible the stock of this elm from the most northern source of this species that has ever been brought to America.

# The Soviets Recognize Michurin

No doubt the highlight of the trip was the national celebration honoring I. V. Michurin, the highly respected horticulturist. As an invited guest and speaker, Niels felt privileged and thrilled to be a part of this national event. His description of the festivities highlights his ability to paint a picture with words:

The highest decoration in the Soviet Union is the Order ofLenin, and this was awarded to I. V. Michurin. The sixtieth anniversary of the work of Michurin on September 20, 1934, was made a national holiday throughout the Soviet Union.

I. V. Michurin is a pioneer nurseryman at Koslov, about twelve hours by train south of Moscow. Lenin determined to promote Horticulture as an essential to the success of the Soviet Union. Having heard of Michurin's remarkable work in originating new fruits, Lenin sent a commission, headed by President Kalinin, direct to Koslov to report on his work.

Michurin was then made head of the new I. V. Michurin Research Institute for Fruit Growing in the

North. Now there are over 13,000 acres or orchards, small fruits and nursery at Michurin, with one hundred forty specialists and twenty-two zonal or substations.

Koslov has recently been named Michurinsk in honor of Michurin. It was decorated with thousands of flags and much bunting in honor of the great event. Special trains came in from everywhere bringing thousands of visitors. The Agricultural Administration of Moscow was represented by many delegates, including the Secretary of Agriculture. Stalin sent a letter of congratulations. Many bands played. There was an elevated platform for the speakers. There was a great parade of workers.

In the evening the large opera house was crowded with an enthusiastic audience. On the stage were the representatives of the Party, the administration, the trade unions, and the agricultural science chiefs of the Soviet Union.

A tremendous ovation and thunders of applause greeted Michurin as he arrived to take his seat as the center of attraction on the stage. Michurin himself is still active in spite of his eighty years. He was visibly affected by the marvelous outpouring of esteem by the people of his country. (A handwritten note by Niels added: "He died the following year.")

He made an impressive speech expressing his great pleasure at the honor conferred upon him. His address was a landmark in the history of horticulture in the Soviet Union. The entire celebration indicates strongly the determination of the government to advance horticulture in every way as a necessary part of national development.

Dazzling batteries of flashlights enabled movie cameras to record the scene, and bands played thrilling patriotic music. The Young Pioneers marched in to pay their tribute to Michurin. Delegates from the trade unions presented machine

models to Michurin as a fellow worker and comrade. There were many speeches by the leaders seated upon the stage. I was called to the platform to represent America. Internationally famous N. I. Vavilov, Chief of Plant Industry, kindly volunteered to interpret my address to the vast audience.

It was a glorious scene, the most exciting that it has been my privilege to witness. It showed that the Soviet Union honors its workers at every opportunity. Such decorations cannot fail to give courage to the young pioneers of science coming on. The Soviet Union does not forget those who have done great work for the advancement of agriculture or any other branch of science.

### **Niels Meets An Old Friend**

In addition to Michurin, Niels met with other scientific colleagues. At the Agricultural College at Moscow, Niels found his long time acquaintance, Professor V. R. Williams, whose father was English and his mother Russian. Williams had been the Chancellor and Director of Soils Sciences for many years.

Williams and Niels first met when they were both young men attending the 1893 World's Fair where Williams was a Russian delegate. They met again in 1898, and in 1908 Williams had invited Niels to his home for dinner. They had not seen each other for twenty-six years, but the scientific ties and friend-ship were strong. Niels found out that after the revolution, the school was slated to be closed, but, as Niels related, "With admirable foresight and wisdom, Professor Williams was able to point out the need of agricultural education. This saved the school for the new government. The name was changed to Timiarizov Academy."

### **Niels Meets Vavilov**

Niels also met with N. I. Vavilov, the internationally known plant breeder, who had acted as interpreter for Niels at the Michurin celebration. The two men probably discussed many aspects of plant breeding. Vavilov later hosted Niels' son Carl when he and wife Gladys came to Russia in 1937.

Niels wrote a short sketch of Vavilov praising him for his contributions to plant breeding in Russia.

Professor N. I. Vavilov is head of the Department of Plant Industry of the Soviet Union. With his one thousand workers in plant breeding throughout the Soviet Union, a vast amount of work is being accomplished.

Vavilov is famous for his theory concerning the origin of cultivated plants and for organizing under his direction one hundred expeditions which have been sent to all parts of the world to collect plants of value to agriculture. The plan is to get the genes of every species for use in the plant breeding work. He has said, "The genes of the genes of the whole world should be gotten together in one country."

The arrest of this respected scientist six years later may not have come as a shock to Niels. Arrests of Russian geneticists had begun as early as 1932. Western scientists were doing their best to aid their Soviet colleagues who were literally in danger of their lives.

Three years after Niels' trip, the head of a medical genetic research institute in Moscow was executed. Vavilov, who had been experimenting with wheat, was arrested and condemned to death as a British spy. He later died of illness and privation in a Siberian concentration camp near Saratov in 1942.

The cause of the arrest was the rivalry between Vavilov and T. D. Lysenko. Vavilov was diametrically opposed to Lysenko, who had Stalin's ear. As a respected geneticist, Vavilov had little patience with Lysenko who questioned the science of genetics, which he dismissed as "merely an amusement, like chess or football." Lysenko denounced the American method of breeding hybrid corn, which was based on classical genetics.

After the arrest of Vavilov, Lysenko smashed laboratory equipment, burned textbooks on genetics and assumed the presidency of the Lenin Academy of Agricultural Sciences.

Grandson David Gilkerson recalls that Niels, upon hearing this appalling news, remarked, "Lysenko has made Russian science

the laughing stock of the world." Many years would pass before the disastrous effects of this "party man" could be undone.

Carl and Gladys met both Lysenko and Vavilov in 1937 and "knew this would happen." More than likely the issues were discussed when they were guests in Vavilov's home.

### Visit To Lenin's Tomb

In addition to his scientific duties, Niels had time for some sightseeing in Moscow and described his impressions of religion in Soviet Russia and the cult of Lenin.

The question is often asked, "Has Soviet Russia abandoned all religion?" In the financial sense, the State ignores all religions and does not encourage them. But anyone can start a church. Mohammed, Buddhist, Zoroaster, or fire worship, in fact all religions, are to be found within the boundaries of the Soviet Union. But the State gives no financial support. As soon as a church fails for lack of support, the building is taken over for other purposes. And yet there is reverence for the past.

Some observers have maintained that Communism as practiced in the Soviet Russia has become their religion. I cannot comment on this, but it is surely interesting to observe the long queues or lines of several thousands of people on the Red Square at Moscow awaiting their turn to get in to see the tomb of Lenin, the man who was leader of the great upheaval in 1917. Lenin has been dead for ten years, and yet he still lives in the hearts of the people.

The building is made of marble, flat-topped, evidently designed by a great architect. The people go in single file down many steps with black marble on either side. The impression is clear that one is going down into the grave to see a dead man.

In a large plate case lies the body of Lenin as though in a bed asleep. The strong electric lights make the features very clear. Whether it is embalming or extreme cold has not been made known, but the body is certainly in a remarkable state of preservation. The people file along on one side and around and back on the other side, so they have a clear view of their departed leader.

So many thousands of people come every day that the hours have been restricted. The Red soldiers are stationed all along to keep the crowd in line.

It is evident that the people revere Lenin and his spirit is still their leader. It is also evident that the Soviet leaders believe that making it possible to see Lenin is better than talking about him. So the story of the revolution is impressed each week upon thousands of people.

If the Soviet system is to become a religion, it is evident that Lenin will be the patron saint. The older workers in field and factory all remember Lenin with a feeling that is akin to worship, although they know that he was only mortal. His memory in the hearts is immortal.

His statue, bust, photograph, picture or painting is seen everywhere, and his writings in condensed form are broadcast in small pamphlets.

When he returned, Niels lectured and wrote about the Soviet system, incorporating many of the points from his book of observations. His open admiration for the socialist tenets of Soviet Russia may have brought criticism of his idealistic views, but in light of the depression that was devastating America, he was ready to suggest new models for the United States economy and way of life. Carl published a book in 1935, How Russia is Solving Her Problems, a condensed form of the observations made by his father.

# **Experimental Work Continues**

His four-month trip to Russia during the summer and fall of 1934 did not postpone the work at the Experiment Station. During the extremely dry periods of 1933 and 1934, Niels produced 28 new apricot and pear varieties. In 1936, the year before he

retired, he named and distributed twelve varieties of apricots that were progeny of the trees from China.

He earned awards that brought stature to the college. The Cosmopolitan Club of Sioux Falls gave him a gold medal for Public Service in 1933. The Manitoba Horticultural Society awarded him the A. P. Stevensen Gold Medal for new fruits in 1935.

Articles in Country Gentleman, a magazine popular in the rural states, featured his work and also published observations of Russia written by him. In 1936 The American Rose Society recognized his progress in hardy roses with a First Prize for 41 new seedlings. Two years later he introduced an outstanding pink, double rose, the Lillian Gibson, named after the wife of President Charles Pugsley.

## RETIREMENT

#### 1937-1940

"What can be done in this field that hasn't been done before?"
Niels

When Niels retired in 1937 at age 71, the college was still on shaky financial ground, although some effort had been made to restore the cuts of 1933. Unfortunately he retired with no state or federal pension.

However, the college was not about to abandon one of its most prestigious professors. The department recognized that Niels' work with fruit was outstanding. Given the ongoing interest that surrounded Niels' work, the college assigned him to the Experi-ment Station where his task was to continue breeding hardy fruits and ornamentals.

# The Battle of the Budget - 1938-39

But a year after his retirement, Niels found his fruit-breeding experiments in jeopardy. The proposed budget for 1938-39 decreased funding for his plant experiments by over \$4000.

For years Niels and his good friend James W. Wilson, head of the Experiment Station, had enjoyed an annual budget of \$10,000 from the State, which they divided equally between animal husbandry and fruit breeding. Wilson retired in 1938, and the new director, I. B. Johnson, had other ideas.

Niels summarized the problem in a handwritten note. He wrote that, beginning in July of 1938 his foreman, Arne Larson, was put on half salary. His teamster, Ole Eskum, was dismissed, but Niels kept him on from July to December by paying him out of the day labor allowance. Niels' salary was also reduced by one-sixth, which left him an annual wage of \$2450.

"For the coming year beginning July 1, 1939, they propose to take all the Horticultural State Experiment Fund for Agriculture Research--\$5000." This act, Niels declared strongly, would "kill all fruit experiments and the state orchards at Sioux Falls and Watertown."

He also complained about the reduction of space for fruit breeding that was now limited to only about 6% of the 41x116 greenhouse, a building that had been originally built with his fruit experiments in mind.

Niels wrote directly to the President of the South Dakota Horticultural Society in February of 1939.

**Dear Friend Beebe**,

Don't let the letter deceive you. That \$10,000 for Horticulture and Livestock was originally \$20,000. It started from the enclosed printed letter. In recent years it has been \$10,000 a year, divided equally between Livestock and Horticulture.

In the recent attempts to cripple and ruin my fruit breeding experiments, the wording was changed to Agricultural and Home Economics research, at \$12,500. Later, the latter, "Home Economics" was cut out and it left \$10,000 for "Agricultural Research."

It is easy to see (since the allocation is to be done at the will of the Director) that in dividing \$5,000 a year among many departments, that Fruit Breeding will get about 1/10 of 1%.

The State Orchards are in lieu of land needed here, but not made available. I could not plant any fruit seedlings for budding; the land was taken up by 7 acres of tomatoes and 15 acres of sweet corn. My foreman, Arne Larson, with me since 1904, was put on half time July 1, 1938 (but payable in 12 installments), an unheard of thing, leaves me without a foreman from January until July 1.

I would like to plan ahead and propagate for Horticulture Society premiums as suggested in the Presidential letter, but cannot when every effort is made to cripple and ruin this work.

I hope you can see the Governor personally, and in time. Also any Regent you know. Proper earmarking of the appropriation would be the best way.

Cordially yours,

#### N. E. Hansen

Niels got support from the acting head of the Horticulture and Forestry Department, L. L Davis. Davis stated in his letter to the President of the Horticultural Society:

The following projects were conducted for horticulture research: Triploid apples, hardy apricots, and fruit breeding.

If Governor Bushfield's recommendation is approved by the 1939 legislation appropriation committee, then these projects will be badly crippled. They do not receive enough financial support at the present time. These projects conducted by Dr. Hansen should receive the financial support that they have in the past.

Will the Horticulture Society consider it their problem and consult with the legislators and especially members of Appropriations Committee?

Some sort of compromise was reached regarding Niels' salary. Income tax returns for 1938 show that Niels was paid at his old salary for half the year, and the reduced salary from July to December. He would receive this reduced amount for three more years.

In spite of budget constraints, Niels maintained his schedule of producing new fruits and in 1938 and 1939 turned out nine varieties of crab apples, five new pears, and five varieties of the Golden Currant. He introduced three new varieties of thornless roses that he named Pax Roses. The following year he presented three original pears with Russian and Chinese ancestry.

In the fall of 1938 he searched for more northern material for roses in Canada. He described the surroundings in an article, "Progress in Thornless Roses," written for the American Rose Annual.

I visited Fort McMurray in Alberta, Canada, 300 miles north of Edmonton, and about 534 miles north of the boundary. The minimum winter record here is 70 degrees below zero Fahrenheit. Plenty of wild game; many airplanes every day enroute from Edmonton to the far Arctic north with supplies and returning with radium and other valuable ores.

A special feature in the early morning hours was the howling in canine unison of the many sleigh dogs kept in corrals awaiting the snow season.

Niels had more reason to be pleased with his connections to Canada, when Saskatchewan authorities proved his crested wheat grass was every bit as good as he had been claiming for years. The province reclaimed thousands of abandoned land, riddled with Russian thistles, when they planted crested wheat grass.

In a Country Gentleman article, Niels claimed "bragging rights" as he explained how the government bought several million acres, reclaimed them and leased the pastures to cattlemen. This plan of action he had been urging on western states for years to no avail.

#### **Retirement Described**

Arnold Nicholson, writer for the Country Gentleman, drew a picture of Niels and captured the essence of his retirement.

Niels E. Hansen, plantsman extraordinary, obviously has fought hard all through his life to maintain the proper scientific detachment in the midst of experiences that thrill him to the core. Some of the adventures that came his way, plant-hunting in the far-off corners of the globe, would excite the most stolid individual. He is inclined to dismiss them in a

few words, precisely and softly spoken, as he goes on to describe the seeds and plants he unearthed.

Not until you roam through his modest home at Brookings, South Dakota, and catch a sidelong, shy glance from bright blue eyes as he briefly exhibits odds and ends he gathered in Turkestan, China and Siberia, do you realize that he would like to talk more of these things if he could. Ivory tusks of the prehistoric mammoth and blue-glazed bricks from the fabled palace of Tamerlane hold associations that Professor Hansen treasures — and because he is a professor, and a scientist, he keeps most of the details to himself.

He is as full of exciting plant projects – projects that mean years of breeding and selection - at seventy-four as he was when he came to Brookings forty-five years ago. "And," he remarks with a mild little chuckle, "you have to have nerve to grow and choose from maybe a million plants to get the one you want."

This endeavor has led him, now that the Hansen wanderings are confined to continental America, to a yearly pilgrimage in which he personally escorts the spring north across the plains.

He usually reaches the orchards at Woodward, Oklahoma, the day that the apple blossoms unfold, and keeps step then with blossom time in the experiment stations from Missouri to Kansas, Iowa, Nebraska, the Dakotas, and often on up across the Canadian line.

Professor Hansen's orchard visits are timed to coincide with the moment when pollen of one apple, and receptive flowers of another, are ready to combine under his skillful touch. Little labels, tied to the twigs, mark his hopeful bets with the plant world and designate the parentage of the seed to be harvested in the fall.

The experiment station men long ago ceased their surprise at having him bob up in their orchards at

almost any season of the year. The picture that lingers, however, is of a little, erect, white-haired Viking of a man who comes hand-in-hand with the pink and white glory of springtime.

Grandson David Gilkerson recalls one such trip to Morden, Manitoba, he took with Niels in 1936 or 1937.

We drove in his big, old Packard, driven by a college student. The pollen was in carefully labeled petri dishes, in a cardboard box. Grandpa would lay out the dishes of pollen that he wanted to use on each tree. In the early morning, flowers, ready to open but still closed, were selected. Then with a knife, Grandpa cut around the blossom, and removed the petals and the stamens containing the pollen. With great care, he touched the dry pollen dust in the petri dish with his finger tip and a few grains of pollen were transferred to the waiting pistil.

A little paper tag with the info about the pollen was attached to the stem to identify the apple as being the progeny of that particular cross.

When we were finished pollinating, the trees were decorated with hundreds of fluttering paper tags. Apples were sent back to Brookings where thousands of seedlings were started, and the patient wait began to see if something wonderful would develop. He had great patience. From thousands of chances in hand pollination, Grandpa would hit a winner only occasionally.

Nicholson goes on to describe Niels' many trips and accomplishments and mentions the 1934 trip to Russia.

The mutual admiration and respect enjoyed by Doctor Hansen and his Russian friends at times irks certain folks in Brookings, but their mutterings bother him not at all.

### No Retirement

The college tacked "emeritus," meaning "honorably retired from active duty," on Niels Hansen's title as

Professor of Horticulture three years ago. The retirement failed to take, except to release him from a few routine duties and thereby add precious hours to the time he could give his plants and books. To judge from his reputation in debate or discussion at the monthly Faculty Forum meetings, on any subject whatever, he must read while he sleeps.

His office retains, throughout the year, a faint odor of ripened fruit mingling with the bookish, paper smell of bulletins, magazines and scientific volumes piled in shelves to the ceiling around its four walls. A handful of seeds, withered apples or rose hips are invariably on the high desk where Doctor Hansen stands to work when he considers he has been hunched over in his chair too long.

In the recent years of war, and threats of war, Doctor Hansen has embarked on a rose venture, developing a hardy, thornless strain he calls the Pax, which is Latin for peace. "They are civilized roses," he declares.

He tackled this problem at an age when most men have retired, applying the same formula to roses as to everything else. "What can be done in this field that hasn't been done before?" It's a sure way to keep the mind young, or, as Doctor Hansen says, "To prevent ossification of the coco."

#### A New Grandchild

At the end of the decade Eva and husband David added a fifth child to their family, Marguerite (Peggy) b. 1939. Niels and Dora now had nine grandchildren. Carl's four children lived within a block of Niels' Eighth Street home. Eva's family was still dairy farming near Armour in Douglas County.

#### **Another Honor**

At the 1939 World's Fair held in New York, Niels' name, along with eight other Danes, was inscribed on the walls of the American Common Hall of Honor as one of the many foreign born Americans who had contributed to their adopted country.

The list included fifty-nine nationalities and cited those who had become American citizens and had improved American life.

## THE WAR YEARS

#### 1941-1945

"He [Hansen] talks of his botanical discoveries goin' to town!"
The Des Moines Register, 1942

The United States did not enter the conflict that raged over Europe until December 7, 1941, after the Japanese attacked Pearl Harbor. However, reports of the devastation that were being inflicted on countries dear to the hearts of both Dora and Niels had been in the news for two years. Dora did not face the anti-German feelings that had been present during the First World War, but she must have worried about her cousins who were in the German war effort.

Niels' Danish cousin, Søren Brørson, was serving in the King's Cabinet as a Minister without portfolio. When the King signed a non-aggression pact with Germany in 1940, Denmark declared her neutrality. However, Germany did not respect the pact, and Denmark was forced to accept Nazi occupation of their country with the understanding that Germany would not interfere with Denmark's political sovereignty.

Some in Denmark did not approve of the King's action of cooperation. Resistance groups fought back with acts of sabotage that finally led to a break with the Germans. The Cabinet resigned and the Germans took over. According to Søren's grandson, Helge Gamrath, the resignation saved his grandfather from being accused of collaboration after the war.

On the home front, Dora and Niels experienced the same civilian shortages that others in the nation endured. Sugar, meat, flour, and some canned goods, along with shoes could only be purchased with ration cards. Tires and gasoline were also rationed, although farmers received special consideration for farming operations.

The Selective Service called men up for the war. South Dakota sent fully 10% of its population into service. The first contingent called up was a National Guard unit, the 147<sup>th</sup> Field Artillery, which was already on its way to the Philippines when bombs fell on Pearl Harbor. David Gilkerson, who had just begun his college career, served in the Service Company, 309<sup>th</sup> Infantry, 78<sup>th</sup> Infantry Division, First Army, stationed in Germany. He saw action in the bridge over Ramagen and was part of the mop up operation following the Battle of the Bulge.

In Brookings County most farm boys were classified as "C" which meant they were exempt from the draft. The country needed its farmers. But some left the farms to serve their country and the attraction of defense jobs thinned the work force. With many men gone, Brookings County farms suffered from a lack of workers, so some students and city people went into the fields to help with shocking during grain harvest.

Enrollment at South Dakota State College dropped to under 500 but was augmented by military trainees from the Army Air Corps and Army Engineers who used the college facilities and arrived at intervals throughout the war years. The Experiment Station and Extension focused on helping citizens with "victory gardens" and home canning.

The government set up programs to help the war effort. Scrap metal was gathered including old tools, cars, household pots and pans, anything made of metal. Children even collected the thin aluminum foil wrapped around sticks of gum and brought it to school. They also gathered milkweed pods whose floss was used for filler in life jackets.

War bond drives stirred the patriotism of the common citizen. Movies and songs kept the national effort going. Newspapers carried front-page stories of the war effort and reprinted letters from service men. Service flags in churches recognized their members who were in the armed forces. In 1943 a "victory tax" was superimposed on the income tax.

During the war years, Niels kept on with his fruit experiments. From 1940-1942 he introduced five new pears of Russian or

Chinese heritage, an ornamental hawthorn, three crabapples, two apples and two thornless roses. The Alamata red-fleshed apple and a red thornless rose, Zitkala, were his pride.

Niels commented on his new rose creation in an unpublished manuscript, "The World Wide Quest for the Thornless Rose."

"The Red, Red, Rose" celebrated in Robert Burns' poem is our heart's desire. For many years I worked to change the color of the wild prairie rose from light lavender or mauve pink to red. For a long time, even after thousands of hybrid seedlings had been produced, it seemed impossible to get the blue or purple out of the red. Much new material was imported for use in this work.

Finally when the newest hybrids bloomed in June 1941, I was amazed to behold the crimson cerise and spectrum reds. The fixity of type was broken — the "red, red rose" was here! The scarlet and the two-color roses are expected to come later.

The best of these red roses I named Zitkala, almost a Pax rose, and introduced in Spring 1941. It is a double thornless red rose. After many years this is the first "break" away from the light lavender of the wild rose.

In June 1942 the original plant of Zitkala bloomed in profusion, over 250 flowers. Taking the thorns away and the blue out of the red makes it a double effort, but it is worthwhile to tame this beautiful wild American rose.

Interest in the life of Niels culminated in the biography, <u>To Plant the Prairies and the Plains</u>, written by Mrs. H. J. Taylor and published in 1941. Written nine years before his death, the information was obviously incomplete. Niels would go on to nine more years of fruitful experiments and other awards; however, her comments at the end of the book fit these years as well.

Niels Ebbesen Hansen was a 'Banebyder' (trailbreaker) from his earliest years, and he has been breaking trails throughout his life. He was

equipped with a self-starter that has never been out of repair.

He is a man of action following an inner gleam that has burned throughout his years. Ask why he works so steadily when he is emeritus, his eyes twinkle as he explains: "I need exercise to develop my pioneer spirit and there are so many things to be done.

"The shape of the apple needs altering so the poison spray can't get into the stem end and so that insects can't get so easily into the blossom end. In Bogota there are black-berries that are two and one half inches long that should have been tamed long ago by scientists who could make them still bigger; self complacency is not progress."

A year later his life was featured in "Both Sides of the River," a publication of the South Dakota Writers' Project that called him a "Fruit Wizard." Capper's Farmer, a magazine devoted to agriculture, put Niels on the front cover of the February 1943 issue, and featured an article, "A Man and His Rose," which wrote of his many contributions to the farmers of the Midwest.

Honors followed Niels into retirement. At his fifty-fifth alumni reunion at Iowa State College in June 1942 he was given the Alumni Merit Award. The Des Moines Register carried the story:

A 76-yer-old botany professor with South Dakota dust on his black shoes and a twinkle in his bright blue eyes — an agricultural explorer — received honors at lowa State College during graduation and alumni ceremonies at Ames this weekend.

The reputation of Niels E. Hansen, professor emeritus of South Dakota Agricultural College at Brookings, goes beyond his home state of Iowa and his adopted South Dakota. His fame waves in the billowing heads of crested heat grass over millions of acres of western North American grazing lands.

But goateed Professor Hansen bears his honors lightly, cocks his new hat merrily on the side of his head, speaks a tongue as modern as the youngest

South Dakota Aggie co-ed and talks of his botanical discoveries "goin' to town!"

Professor Hansen remembers trudging across burning plains 1,000 miles from a railway and through wind-driven sand so thick that he had to breathe through a wet sponge. It was on one of those trips, in 1898, that he uprooted and brought home the first crested wheat grass.

"It takes years for a new plant to catch on," Professor Hansen explained. Now the federal government has a total of four million acres of previously tax-delinquent land in western North and South Dakota in wheat grass. Also, in Professor Hansen's words, the grass is "goin' to town" in the provinces of Manitoba, Saskatchewan and Alberta, Canada.

Drought and winter resistant, the crested wheat grass has been able to support hundreds more cattle per acre than the old plains buffalo grass. "You can see how one plant may change the philosophy of a whole state — a whole region," said Professor Hansen.

During the five years Professor Hansen has held an emeritus ranking at South Dakota State, his discoveries and experiments have been largely with fruits and trees.

His latest — with a tilt of the goatee and a twinkle of the eye, he calls it "the new model" — is an apple that is red throughout. "It's like a candied apple without the cinnamon," he said jokingly. "We may be able to breed that into it later."

Then he has "taken the blue out of red" in roses, evolving a rose that is of pure "spectrum red." Professor Hansen has named it the Zitkala, a Sioux name meaning bird.

The Danish-born professor wanders daily through his gardens — pruning, grafting and cultivating — carrying on the work of an agricultural explorer.

At the end of 1944 Niels was again honored in lowa. The lowa State Horticultural Society, following in the footsteps of the Manitoba and Massachusetts societies, presented a Medal of Honor that recognized his work as a world plant explorer and plant breeder. The medal was well deserved for he added five new apples and an apricot that year. He told the Society of his coming novelty for the spring of 1945 — a seedless pear. As he explained in his address,

A few weeks ago, in slicing through fruits of a lot of my hybrid pear seedlings, a knife slipped through easily. A pear of excellent quality, tender flesh, of the "butter pear" group, and no seeds or core. It was a great surprise. No seeds is a very rare phenomenon in pears. My new pear, probably to be named Hansen Seedless, is winter-hardy and proof against fire blight at Brookings, and I hope it will be the same elsewhere.

Toward the end of the war, South Dakota's economy was booming. Rainfall during the war years meant abundant crops and better income for the farmers. Unfortunately for Niels his salary did not keep pace with the increased prosperity. By 1944 his salary had been reduced to \$1900. In addition to his wages, Dora contributed to the family income with about \$800 from the rental of her farm near Eden. Frugality, at which Dora excelled, was essential.

# **Eva Moves Her Family**

One bright spot for Niels and Dora was the move of Eva and husband David to a farm two miles east of Brookings where they continued their dairy operation called Jerseydale. The proximity of all their children and grandchildren brightened the lives of Niels and Dora and gave Niels more school functions to attend. He rarely missed a school play or concert and in turn escorted his grandchildren to cultural events on campus. Dora's happiness was short-lived.

## **Death Of Dora**

In the fall of 1945, as she was preparing some fruit sauces, Dora suddenly fell in the kitchen. Niels, sitting in the library, rushed into the room to find her collapsed on the floor. He immediately

called a doctor who pronounced her dead at age 76 of a coronary thrombosis. The doctor told her daughter-in-law Gladys, "She was dead before she hit the floor." Ironically, Dora died on Eva's forty-sixth birthday, September 14.

Niels was unexpectedly without his helpmeet of thirty-eight years. She had raised his children, provided a good home, and been a faithful companion through nearly all of his career. He seemed stunned by this sudden turn of events. Even though Dora had not been in good health for several years, she had exhibited no signs of serious illness.

Carl and Eva supported their father as he was faced with the decisions that followed a sudden death — the choosing of the casket, the burial clothes, and the funeral service. Her body was prepared by the funeral home and brought back to the Eighth Avenue home to lie in state in the parlor. Grandchildren knew little of the devastation or the loss their grandfather felt. Niels was seen, hands clasped behind his back, gazing blankly into space as the family rallied around him.

Ironically, Dora died on a Friday, as Emma had. The decision to hold the funeral on Sunday at St. Paul's Episcopal Church was possible because the family was close by, with the exception of grandson David who was still in the army. There were no Pammels to attend; Dora was the last of her family.

During the service "Silent Night, Holy Night" was sung. This tradition may have stemmed from the funeral of Emma who had died so near to Christmas nearly forty years ago. Among the pall-bearers were her son-in-law David Gilkerson, son Carl, and grandson, Paul.

The Brookings Register noted, "Mrs. Hansen devoted her life to caring for the two children by an earlier marriage. The last of six children, Mrs. Hansen is survived by her widower, stepson, a stepdaughter and step-grandchildren." Dora, who had sold her farm near Eden earlier that year, left about \$2000 in the bank, along with the Eighth Avenue home, as her estate.

Dora was buried in Greenwood Cemetery where Niels had arranged for a double plot. He had already placed his monument on a space between the gravesites of the two wives.

After Dora's death, the Gilkerson granddaughters, Carol and Laura, moved into the home. They prepared his meals and kept Niels company. Carol remembers that she came home from high school each noon to fix his lunch, and that he walked to the college twice each day.

## THE FINAL YEARS

### 1946-1950

"I will be content when my life's work is done."

#### **Niels**

In the aftermath of the war, residents of Brookings County saw an increase in population. Enrollment at State College swelled to over 2000 as veterans took advantage of the G. I. Bill. Trailer houses were brought in to provide housing for the returning students to alleviate the housing shortage. Shortages of goods and food disappeared. Farms received electrification; new cars and gasoline became available and the area turned more mobile.

#### **Additional Honors**

The year following Dora's death, the South Dakota State Horticultural Society presented Niels with the Robertson Memorial Award in Horticulture. Niels was the first to receive the honor.

John Robertson was an old friend of Niels who had served as the Vice-president of the Society all the years that Niels was President. Robertson had left a small trust to honor those who had made am outstanding contribution to horticulture or some other phase of plant science.

#### Crested Wheat Grass Acclaimed

Crested wheat grass, which Niels had long advocated for the dry uplands of the Northwest, began to get more attention in 1947.

The Daily Argus Leader ran a story that reflected on the importance of crested wheat grass to the feeding of livestock.

According to the article, crested wheat grass produced earlier grazing, a longer grazing season and more beef production than native or brome grasses in dry land pasture experiments.

Niels no doubt felt vindicated for his long insistence that this Russian grass, which he had brought back over fifty years ago, was the answer to many problems and was finally being recognized for its true worth.

A reporter from the Sioux City Sunday Journal interviewed Niels, who was quoted:

"Study the principles of science, then use the Pegasus wings of imagination." That, says Dr. Hansen, is the formula which he has used during his many years of research and which has brought him success in his chosen work.

"To conquer the prairies," Dr. Hansen points out, "we must combine the very best that we have with the best that we can find elsewhere. Other countries have much to offer us in the way of native grasses and basic food plants."

In his 80<sup>th</sup> year, he is as active and alert as any young man on the campus, never missing a college activity and attending motion pictures regularly. He takes long walks daily, to which he attributes his extraordinary good health.

At his desk daily, Dr. Hansen handles a large amount of correspondence and continues his experiments with an eye on the future - always in search of something new and better for South Dakota and the Middle West.

"Even with the realization of my dream, this work must go on," says Dr. Hansen, "for in horticulture there are always unfinished problems."

# Yellow Flowered Alfalfa Rediscovered

Crested wheat grass was not the only plant that was found again. Plant breeders had abandoned the yellow flowered alfalfa that Niels had brought to the United States in 1898 because it was low-yielding. Its characteristics of hardiness were

ignored until forty years later. Niels must have rejoiced to see the plant, which had cost him dearly to obtain, was now coming into its own.

A newspaper article explained that alfalfa breeders were looking for possible strains that would persist under extreme climatic condition in the Plains states.

They found some alfalfa growing at one South Dakota station that had been planted some 40 years ago. The plants had come through with years of drouth when they were eaten into the ground by livestock.

Some of the seeds, sent to Alaska about the same time for testing, were also forgotten. Two years ago they were found growing within 10 inches of ground permanently covered with frost.

It so happened that some twenty years ago seed from these alfalfas were stored away in envelopes at a South Dakota field station. They were re-discovered and are now being put to use in breeding operations which promise a new and valuable livestock feed crop.

#### **An Interview With Niels**

Reporters valued Niels for feature articles. A Minneapolis Star columnist, Virginia Safford, penned a story in July of 1947 about meeting Neils while on a trip west.

Our first load of gas carried us to Brookings, just over the Minnesota line. As we stopped to fill up, I remembered Dr. Niels E. Hansen. "Oh, you mean that little old fellow with the white goatee," the girl answered to my inquiry. "You can find him up at the state college, three blocks north."

I did find Dr. Hansen in his office, behind a desk so littered with papers I wondered if he had ever got to the bottom of them in his 50 years at Brookings. He assured me he often did. But his has been a busy, useful life - and still is.

What had drawn me to Dr. Hansen in the first place was that I knew he had been one of three men who

brought hard wheat into our United States. In fact the whole aspect of grazing in the mid-west and northwest is also being changed by the dry country forage plants which he discovered on one of his seven trips to Russia.

As we talked together he opened his coat to show hanging inside a small gold medal. He had been given it when he attended his 60<sup>th</sup> reunion at Ames last month.

It would be impossible to list all the things we can thank Dr. Hansen for. But he's like the famous baseball player, who, when asked the secret of his success, replied, "I try to hit 'em where they ain't!"

Niels may have discussed the story of durum wheat with this reporter, as he had done with others. He told the tale in the report which he gave to the lowa State Horticultural Society when he received his award in 1944.

I noticed that wheat bread in European countries was not as snow-white as in the United States. It was more of a creamy tinge. I also remembered the German-Russian colonists in South Dakota had brought over some wheat from dry regions in Russia, but that millers refused them as rejected wheats, good only for chicken feed. They needed special milling owing to the hard grains.

Then in Russia I collected many authentic samples of these wheats. Upon my return in the spring 1898 this material and inside report was submitted to Secretary Wilson. It was up to him as a matter of policy, and would involve a fight with the milling interests.

But Secretary Wilson wanted to help the northwest farmers who could raise these wheats in dry years, and they needed much less rainfall. Secretary Wilson was never afraid of a fight, so decided quickly; M. A. Carleton, a great wheat specialist from Kansas, was sent to Russia the same spring of 1898 to get larger supplies and to extend the work.

Many specialists were set at work proving that good bread could be made from durum wheat. In many ways Secretary Wilson extended the work and in due time the fight for recognition was won, and the durum or macaroni wheats earned their own special place in our drier regions.

I did not follow up this work as it was in good hands. I was the explorer, not the wheat specialist.

An article in the South Dakota Collegian, the student newspaper, in November of 1948 ran a biographical story on Niels, calling him the "Grand Old Man of State." It related a story of his physical prowess at age eighty-one when he fell over a broken sidewalk and immediately caught himself by straightening out his arms as he had been taught so many years ago in calisthenics.

# **Niels Spreads His Message**

Niels' opinion was respected and he responded with lucid, thoughtful writings. The Daily Argus Leader in August of 1948 ran a guest editorial by Niels in which he pressed for more land for experiments and more exploration to find hardy plants.

It would profit the United States greatly to search the world for desirable plant genes — the carriers of plant heredity. It would add many millions to the wealth of the United States.

In Horticulture, a magazine printed by the North and South Dakota Horticultural Societies, he outlined twelve points to improve the conditions in both states. He particularly stressed the scenic value of the Black Hills, as well as suggesting plants that could be grown in the Midwest to improve the lot of the farmers. He wrote, "Let us all join in the great work of promoting horti-culture to its highest possible development."

### **Memorial to Niels**

South Dakota State College and the State Horticultural Society decided in the summer of 1949 to honor this long-lived Professor of Horticulture for his many contributions.

"The recognition is long past due," said Governor George T. Mickelson. Comparing him to Moses, Mickelson said,

Like another great patriarch and benefactor who directed a race of men into a land of promise and prosperity four thousand years ago, he has reached a ripe age, and "his eye is not yet dim nor his natural force abated." His creative mind still seeks new conquests with the objective of hastening the slowly evolving processes of nature.

The memorial, placed between the administration and horticulture buildings, was of native stone and bore a brass citation that read:

South Dakota State College seeks to perpetuate the memory of its long-time fruit and plant breeder.

Niels Ebbesen Hansen, Born at Ribe, Denmark, January 4, 1866. He came to the United States in 1873. Made Professor of Horticulture of South Dakota State College in 1895. Professor Emeritus in 1937. A world traveler and collector of plants. He developed drought resistant varieties of fruits, flowers and grasses for the Great Plains. His efforts provided the people of the Great Plains the means through which they enjoy a better living.

The memorial has since been moved to the N. E. Hansen Specialty Garden within McCrory Gardens.

#### **National Attention**

National coverage of Niels' life occurred in 1949 when Paul Friggins of Coronet magazine chronicled Niels' accomplishments in an article, "His Plants Transformed the Plains."

Friggins seemed taken by Niels' personality as well. He wrote:

At 83, this indefatigable son of an immigrant Danish artist is still hard at work. If you are in Brookings, South Dakota, you will likely find the white-goateed Hansen trotting briskly about the big experimental gardens behind the State College campus, or busily engaged in his little office in the Horticulture

Building. Regularly he walks three miles a day to keep fit, then tackles heavy mail and innumerable foreign-language plant journals (he can read seven languages).

Friggins seemed to enjoy Niels' sense of humor and related the story of a recent visitor to Hansen's office who quipped, "I suppose you could even breed a square pea that would stay on your knife!" Niels shot back, "As a matter of fact, I found a three-cornered pea once in Asia that might turn the trick. Some day I may get to work on that."

The writer commented on the patience of a plant breeder like Niels. He quoted a friend of Niels who asked him, "Why do you have to grow thousands of plants to produce a superior variety?"

"It took a good many million Englishmen to produce a Shakespeare," was Niels' reply.

Later Friggins would turn that phrase into a compliment when he telegraphed Niels at the dedication of the granite monument: "Will you please salute America's pioneer plant breeder and tell him it took a good many Danes to produce a Hansen!"

#### **Niels Becomes Frail**

Up until a year before he died, Niels remained active. As he began his eighty-fourth year, Niels began to fail. The once sturdy body which had taken him across the windswept steppes of Russia and through many treks across the prairies, now showed signs of chronic myocarditis or inflammation of the heart, a disease commonly caused by a virus.

One night someone found a disoriented Niels out walking. Observing that Professor Hansen was not himself, the neighbor kindly escorted him home and alerted the family who had to come to grips with his deteriorating health. Eva and her family moved from their farm to live with him and look after his needs.

Whereas before he had walked three to four miles a day, now he found it difficult to go up and down the stairs and remained for

the most part in his bedroom upstairs. He was diagnosed as diabetic, and his diet was restricted.

## **A Friend Visits**

Sam Bober, a director of the State Horticultural Society who had worked closely with Niels over the years, visited Niels in March of 1950. Niels was weak, but his mind was sharp, as Bober observed in this letter to the Dakota Farmer:

I visited Professor Hansen last March. He was at that time a very sick man, and his daughter, Mrs. Gilkerson, was taking care of him. His mind was still very clear, but he would doze off awhile while we were visiting. I would suggest to Mrs. Gilkerson that the Professor should lie down and rest, as he looked very tired. He would then open his eyes and say, "Please Sam, don't go. We have so much to talk about."

He also worried about the stupidity of men who were smart enough to build a great civilization, but were also building atom and hydrogen bombs, because they have not found a way to settle disputes among nations without the butchery of modern wars. He saw catastrophe and unwillingness of leaders to back down in the face of imminent danger.

# A July Visitor

Others sought him out. Frances Williams, a writer for the Kansas Farmer, who was on a trek across the western United States, recorded her July visit to see Niels.

My main objective in Eastern South Dakota was Brookings, location of the state agriculture college. Here we planned to interview, if possible, Dr. Niels E. Hansen, one of the greatest living horticulturists, the man who has done for midwest farmers what Luther Burbank did for the growers of California.

We inquired at the office of the horticulture department of the college. Would it be possible to visit Doctor Hansen's experimental plots and to see him personally? The girl at the desk shook her head.

Pointing to the stacks of file cases in the room she said, "The records and findings of Doctor Hansen's experiments are contained in those files, but you cannot see him. He is confined to his bed and sees no one." "But" she added, "perhaps his daughter, who lives with him, will see you and grant you an interview."

We found the large green house on the corner, only a stone's throw from the west side of the campus, typical of the homes built in the early 1900's.

A tall woman came to the door when I rang the bell. After I had stated my intention, she graciously invited me to enter the comfortable living room. The home had the feeling of hospitality. There were books on tables and bookshelves lined the walls.

The tall, blonde woman, who wore her hair in a coronet braid, was Eva, Mrs. David Gilkerson, the daughter who, five years earlier, had given up her home to care for her aged father when her mother died very suddenly.

I was struck by the beauty of the expressive blue eyes of this devoted daughter as she related the events in the life of her famous father and told of his many accomplishments.

The article then goes on to relate the essential facts of Niels' forays into foreign lands and his many successes. Williams observed,

Now, as in the past, scientists in the field of horticulture continue to come to Brookings to study experiments and findings of Doctor Hansen. But in his room upstairs, this stalwart, aged giant of the plant world has been laid low by physical infirmities.

There was sadness in the expressive eyes of the daughter as she talked of his present condition. "Thinking to interest him in the news of the world, yesterday I told him of the fighting in Korea," she remarked. "Then all day long he lived in the past. He

talked of his visit to Seoul, recalling events of so many years ago." She went on, "Father endured dust, heat and cold, danger from bandits in foreign lands to find and improve plants that would benefit the common man.

"He has always led a clean, temperate life. He is especially fond of fruits and had a keen taste for flavor. One test the fruit of his experiments must pass was that of pleasing, palatable flavor."

Mrs. Gilkerson continued, "Mother was his helpmate in more ways than one throughout the years. She was testing and cooking five different samples of fruit for him when she was stricken. I asked my father, 'What shall I do with these?' He replied, 'Put them aside, I will attend to them tomorrow.' But he never did and from that day of Mother's death, he has seemed to lose his zest for living and has gradually failed."

The barber who has served Doctor Hansen for 25 years now comes to the home and was making his morning call. He finished his work, came down the stairs and went out. Mrs. Gilkerson excused herself to see whether Doctor Hansen would care to speak to me. She soon returned with the information that her father was sleeping. He had a very restless and uncomfortable night.

As we drove through the campus on our way out of town, we passed the monument erected to honor the long years of achievement of Doctor Hansen. But the real monument to the life's work of Doctor Niels Ebbesen Hansen are the thousands of acres of crested wheat grass, fields of knee-high alfalfa, brome pastures, orchards that enrich the productiveness of our country and the shrubs and flowers around the homes that satisfy the longing for beauty: this is a greater monument than one of mere stone.

# **Niels Goes To The Hospital**

In the last few weeks of his life, Niels could only recognize his son Carl, and once asked him, "Who is that nice lady who is taking care of me?"

Another time Niels became extremely agitated, and Eva thought he was delirious when he kept shouting, "Where are the keys to the apples?" Eva hurriedly called Carl, who knew exactly what concerned his father. Niels was referring to the research notes on the many cross-pollinations he had made — his "keys." When Carl reassured him they were safe, Niels became calm.

At last Niels' infirmities required hospital care. In her unpublished manuscript, "Grandfather's Legacy," Granddaughter Laura Searls wrote of a visit by her brother David and wife Naomi.

They walked into his room and there was a little white-haired old man curled up on the bed asleep. Naomi said, "That's not Grandpa. We must have the wrong room." But it was. And on his bedside table was a shriveled-up pear. David knew — someone had brought in the fruit to say, "See what I grew on one of your trees."

Niels died in the hospital on 5 October 1950, of an acute dilatatiso or enlarged heart. By a strange quirk of fate, he died on his father's birthday. Sister Kristine had died the previous year, and Helene, living in Chicago at age 87, remained the last of Niels' family.

A year before his death, perhaps feeling his strength begin to wane, Niels wrote his final poem. Eva found it in a desk drawer after he died. It seemed to reflect the admonition his father had made to him as a young man, "Stay with God and your beautiful childhood faith, then you will be strong on the world's battle-field."

The Shadow Lengthens

The shadow lengthens toward the evening sun.

I will be content when my life's work is done.

He gave me talents to use along the way.

I have tried to use them in His service very day.

Without Thy inspiration all would have been lost, Without Thy sunshine all would be frost. In Thy garden flowers bloom through eternity. Grant, O God, a place with Thee!

#### Niels' Funeral

On a bright, sunny autumn day, the funeral was held in First Lutheran Church as Niels wanted. Although he had attended the Episcopalian church with Dora and Emma, he had asked his son Carl to arrange for a Lutheran service. "Remember, I'm Lutheran," Niels had said.

He had also requested that "Silent Night, Holy Night," a Christmas hymn, be sung as it had been at Dora's funeral. The poignant refrain, "Sleep in Heavenly Peace, Sleep in Heavenly Peace" floated over the heads of the small gathering of family and friends.

After a funeral procession down Main Street, Niels was brought to the family burial site at Greenwood Cemetery. At the traditional commital service, Pastor E. O Gilbertson of First Lutheran gave a brief eulogy and recalled that Niels had referred to his Elk Horn folk school experience and how it had strengthened his life-long faith. The Masonic lodge to which Niels had belonged for over fifty years then conducted their funeral rites at the graveside, much to the consternation of some members of the family who did not sanction such a non-traditional activity.

After the coffin was lowered into the ground, son Carl, along with grandsons Paul and David, followed the Danish tradition and each covered the grave with a symbolic shovel of earth. Niels was buried between his two wives, Emma and Dora. The tall, gray, granite monument still today pronounces the final epitaph for Niels: "To Leave the World a Better Place Than I Found It."



Dedication of the Hansen Memorial Plaque, 1949
Front row: Peggy Gilkerson, Niels, Joy Hansen
Back row: Carol Gilkerson, David Gilkerson, Jane Gilkerson, Laura

## **EPILOGUE**

# "Consider the length of this man's shadow."

Dr. H. M. Briggs

In the weeks following Niels' death, his office was cleaned out and much of what he had accumulated was put into the dumpster. Mementos, files, records, maps — all were headed for extinction.

Fortunately, some quick-thinking staff members realized that much of what was being thrown away was irreplaceable. The Agricul-tural Heritage Museum was contacted. They collected two truckloads of material. Private individuals also preserved some of his work.

Professor Samuel A. McCrory, department horticulturist, recognized that it was equally important to catalogue all of Niels' work. McCrory admitted that it would take ten years to get the job done. Another priority for the Horticulture Department was to safeguard the trees and plants that Niels had used in plant breeding. He had collected species of trees from around the world and established them in South Dakota, but never had the room to put them all in one place.

State College found the room. The Horticulture Department salvaged and re-propagated much of his work and planted the trees in a Foundation Orchard. McCrory believed that these varieties would not have been on the North American continent had it not been for Niels' journeys.

McCrory hoped that much valuable material for fruit breeding would result from use of these trees. Nearly \$30,000 in federal funds was allotted to the orchard. McCrory claimed, "It would be much more expensive and in many cases impossible to replace any plants discarded now."

For nearly ten years the Foundation Orchard sent out material to over thirty states and many foreign countries, mostly Canada. However, in 1960 the college dropped its fruit breeding research.

"Because of a need to change methods and objectives," stated McCrory, then head of the Horticulture Department.

Despite of the shift in direction, Ronald Peterson, the Assis-tant Horticulturist of the Experiment Station, continued to use some of Niels' original or hybrid plants and introduced a new hardy grape, apricot, and pear in the 1970's. He sent some of the materials to the germplasm repository for apples in Geneva, New York.

Twelve years after Niels' death, Dr. H. M. Briggs of the State Extension Advisory Board, reported that 56% of the alfalfa grown in 1961 could be partially or wholly traced to strains brought to this country and developed by one man — N. E. Hansen. Said Briggs, "Consider the length of this man's shadow — the impact he continues to have on the lives of all of us."

# APPENDIX A

# Excerpts from "Russia as Observed by an Agricultural Explorer"

# By Niels Ebbesen Hansen

The following passages were selected to illustrate the observations and personal experiences of Niels as he recorded them in his book. Some of this nearly 250-page manuscript was composed during the journey. Judging from the references within the text, most of it appears to have been written between 1935-1936. He added information to the document that he probably acquired by in-depth research after he returned. The content of the book is primarily a treatise on the Soviet economy, government and political life as perceived by Niels.

# **Niels Admires The Soviet Union**

During the depression, Niels observed American society in the throes of financial instability. He himself had to submit to bankruptcy. These factors may have led him to mildly socialistic ideas and his hearty endorsement of the "Fair Deal" of the Roosevelt administration.

The trip to Russia in 1934 presented Niels with an opportunity to see Russia as a socialistic nation, different from the one he had experienced in the early part of the century under the Czar. Niels found much to admire in the new social order of the Soviet Union. He commented upon the changed attitude he found among the people.

The remarkable change is best evident to anyone who visited Russia before the revolution. In my former visits to Russia the public sentiment was one of great suffering from oppression. The old attitude was one of people who moved in dread of Siberian exile and the Cossack whips that cut to the bone.

A cringing, submissive listlessness was evident, especially in 1913 when I left Russia about seven months before the World War began. Great student outbreaks at the universities and great unrest indicated impending upheaval.

Now the air is one of joyous, exultant activity, there is joy in the daily work, with play and recreation at the end of the day. It is their own country and they stand ready to fight to the last man and last woman in defense of their own.

t is easy to see the changed attitude on the part of the people as you meet them on the street and everywhere. The former discouraged attitude observed in the days of the Czar regime has given way to one of eager hope. Everyone holds his head high— "We are the owners of this country."

They show a great determination to make the new government a success. They feel that it is their own country and that they are working for themselves instead of for the Czar and the nobility. The downcast attitude observed in the old days of the Czar is no longer to be seen.

Everyone is addressed as "comrade." To change in so short a time from a largely agricultural country to one of great industries involves vast effort and hardship. They do not mind the present hardships. One man said, pointing to the airplanes above his head, "We paid for this out of our own mouths, but it was a necessity."

#### Children's School Gardens

Near Moscow, I visited a children's garden, run under trade union auspices, for children eight to ten years of age. This Children's School of Horticulture is located twelve kilometers outside the city of Moscow, but there is a good connection by train.

Every child has an individual plot and every child can choose to a considerable extent what should be planted.

A written journal must be kept of the experiments. Some of the children were getting an exhibit ready for public display. Other children were making their own signs for the exhibit; they were doing a good job of sign painting. Others were mounting specimens and others were preparing root crops for display.

# The People's Park of Culture and Rest

The ancient Romans demanded "panem et circensesbread and the circus. Something like that is evident in the vast increase in popular amusement.

I visited one evening in Moscow, the largest People's Park of Culture and Rest, where 100,000 or more workers are in daily attendance.

The park was opened two or three years ago and consists of several hundred acres laid out especially for recreation.

Athletics of all kinds: volley ball, basket ball, horizontal bars, parallel bars, roller skating, boating, weight lifting, wrestling, Ferris wheel and countless other activities going on all over the grounds.

The circus theatres are crowded. The Green Theatre is an outdoor amphitheatre with 30,000 seats. Many consultation booths on subjects of all kinds are manned by students on vacation. The red neckties of the young pioneers brighten the scene.

There is a "children's city" where parents may leave their children. Here there is supervised play with trained nurses in charge. A miniature city with children for officials is a constant delight. Again the Russians show their belief that children learn best from each other.

## A Church Garden

The old Orthodox Church — the Greek Catholic and all other churches are not supported by the State. There is freedom to worship. Those who wish to go to church may do so, but the congregation must pay rent for the buildings and must pay the priests. Many of the churches were closed and used for granaries, the storage of supplies, for museums, for homes for the workers and students. The beautiful old

monastery gardens, always the finest gardens in Russia, are now public parks.

I spent an evening in one of them at Michurinsk. The bishop had fled to foreign lands. The band played all evening. The director is paid; the players were factory workers, amateur musicians who helped the advance of culture by playing in this workers band, and it was really excellent music.

The stage entertainment for the evening was not the usual play or cinema, but a band of eight wrestlers, several Russians and one Lithuanian, all built on the man-mountain style, with huge bodies and bulging muscles. It was interesting. They had played in Leningrad and Moscow and were now on a tour of the provinces.

#### A Besada

Besedas were held in many places. Besedas are conferences of one speaker with an audience. There were besedas with science workers, but at Michurinsk I had an interesting conference with six hundred students. The students asked many question that I answered. The following evening, as

I was about to take a train, the students sent one of their best students to interview me still further.

They were eager for new ideas in horticulture. One question that they asked me that was interesting was, "What is the budget available for work?"

I told them that I had traveled in twenty-five countries of the world and that I found it impossible to make a comparative study since the systems of money vary so greatly. But if we go out in the country and in town and note that the children are all round-cheeked and well fed and are playing happily, we may be sure that the budget is satisfactory. It is easy to see that the Russian children are well fed.

#### Gas Mask Drill

Every man, woman and child in the Soviet Russia is taught to use gas masks. When I arrived in Leningrad, preparatory to taking the Soviet steamer to London early in October, there was an imaginary three-day gas attack from the air. Everybody wore gas masks and everybody was supposed to keep off the streets. In other words, it was a practice drill to prepare them for any attack in case any should come.

Every woman in the Soviet Union is taught to use a rifle for home guard work in case of war. One man told me that his wife excelled him in rifle practice.

#### A Collective Farm

Kolkhoz is a new word in Russian and is made up from the words "collective" and "hoz", farm. Prosperity was evident in the Kolkhoz "Progress", about 35 kilometers from Omsk, Siberia.

In my visit I noted a good schoolhouse with 56 children, two teachers and a radio; also a flourishing vegetable garden and orchard of which the children were very proud. The total population was 241; the 61 families lived in three small villages. The usual number of families in a kolkhoz is from 30 to 200. The full time field workers numbered 70, with 38 on part time as needed. There was a clubhouse just completed.

The kolkhoz was organized in 1931. The total land acreage was 3,500 acres. There were 48 horses and 30 swine. There were only 17 dairy cows collectively owned; the cream was sold to the State Milk Trust creamery at Omsk. Each family owned cows for home use.

A large horse barn was under construction, as horse breeding for the market was part of the program. The small fruits and orchards were in care of one of the older men who was a good fruit man. There were two blacksmiths and one carpenter and wheelwright, all full time members of the Kolkhoz. The general manager received full time for his work. There was

also a bookkeeper. There was a doctor two miles away who served several kolkhozes.

The peasants lived mostly in one-family log cabins, but there were a number of two-family and one four-family cabin, as a matter of economy. Every peasant had a private garden, but only as long as he could manage by himself without hiring help.

In kolkhoz villages I noted always there was an office with a bookkeeper. The chief was to be found anywhere as his field duties of supervision demanded; he was a very busy and important man and held the respect of his comrades in the kolkhoz. All were "comrades" in the one great work of making a living in a severe climate and under a war cloud looming in the east.

Silk dresses are in evidence in many collective farms on the rest days. The peasant women want the, and they have something new in prospect. The necessarily plain dresses of the early days of the revolution are giving way to better clothing. Whether the fashions will come from Paris or from their own native artist designers remains to be seen. Their love of bright colors may favor the development of their own styles, since Russian artists are noted for their mastery of color.

# **Niels Talks About Collective Farmings**

The Soviet leaders organized the kolkhoz or collective farms as an intermediate state. This system appealed to the individualistic instinct of the peasant because everyone had his own house, garden, and livestock. Also, their pay was not equal for everybody but was determined by the amount and quality of their work during the year.

The Soviet Union may never go beyond this intermediate state of collectivization as it has worked well for several years and with increased efficiency year by year. The kolkhoz peasants are becoming more prosperous each year.

#### The Kolkhoz For America

The question has been asked; "Would the collective farm system be popular in America?" My answer is, "no" in most cases. The American farmer is individualistic; and in general will do as he likes. A collective farm might succeed, provided all the members were tenants, or men who had lost their farms.

### Sverdlov

In the spacious dining room of the new railway station at Sverdlof there is a huge wall painting depicting the world war as it came to Sverdlof. The Red cavalry are cutting their way through, while the peasant "partisans" turn in and help fight the counter-revolution soldiers — a thrilling picture.

The best of everything is reserved to the Red Army. I saw companies as they marched by, singing in full chorus in lieu of a band.

### Chita, East Siberia

At Chita one evening the local military band played excellent classical and popular music all evening, including Tschaikowsky, Brahms and Romanian Gypsy music.

Open air dancing, especially the graceful Soviet national dances, an open-air theatre and a kino (movie theater). Simple food but no beer or wine was served. The people walked up and down in the avenues among the trees and sat on benches.

There was a clubhouse for the Red Army but open also to the public with plenty of papers and books, checker, chess and dominoes. Russians are very fond of chess and it is commonly played. Many red signs, throughout the park especially, show that a Socialistic state is surrounded by capitalistic states which are enemies. Hence, a strong Red Army is necessary for defense.

#### A State Farm

At one of the large state fruit farms, I visited a crèche or day nursery. The children were receiving the best of care from a staff of trained nurses while the mothers picked berries in the huge berry fields. The older children were playing together under supervision. The claim is made that a child develops faster under this collective play system than when playing alone.

I also visited the large kitchen and dining hall where meals were prepared and served for the berry pickers and the collective dormitories for the extra pickers from another village during the rush of berry picking season.

### The Great Famine

Niels heard from his colleagues about the great famine of 1932-33 in the Ukraine, the Volga and Kazakhstan when an estimated five to seven million peasants died. Thousands of livestock, granaries, homes and fields were destroyed. In his observations he noted that due to shortages of dairy products only children were allowed to have milk. Niels described it as a general farm strike.

Most historians explain that the famine was the result of the fierce resistance to the government's drive to force collectivized farming in areas like the Ukraine and North Caucasus.

The collectivization of agriculture was a centerpiece of Stalin's economic program, but until 1928, collective farming was voluntary. The government had allowed peasants to own their own land that had been granted to them after the revolution. However, these individual farms had not produced enough surplus to satisfy the needs of the Soviet government.

The decision to confiscate their land and force collectivization on these land holders brought on a fiery confrontation. The Soviets blamed the kulaks —

a Russian term for wealthy peasant, literally meaning "fist."

Kulaks were prominent in the villages of Russia before the Revolution, owning their own livestock and homes, and often employing hired hands. This, Stalin declared, was exploitation. He set about to liquidate them as a class of workers. Niels noted the kulak exploitation of the peasants.

The ferocious exploitation of the peasants by the kulaks before the revolution was past belief. It was so severe that the death rate exceeded the birth rate in many villages. The peasants actually died of over work, under-eating and poor living conditions.

When unplanted grain fields produced no harvest, and dead cows no milk, the peasants saw their delusion. A great famine came along that year.

It was a bloody war. How many died is not known; there are various estimates. Other books will tell the story, as I came after it was all over.

# **Niels Explains Liquidation**

Niels seemed to take a rather sanguine view of liquidation that is in stark contrast to what the public later learned.

In the Soviet Union the word "liquidate" has been expended from a purely financial meaning to a more comprehensive meaning of abolishing any particular institution.

The "Kulaks" were peasants who possessed horses and machinery and rented them to the poor peasants. This, according to the Soviet theory, is capitalistic exploitation.

Stalin declared, "The kulak is an enemy of the Soviet government. There is not and cannot be peace between him and us." Stalin liquidated the Kulaks as a class by organizing the collective farm or kolkhoz.

# A Bloody Struggle

The kulaks waged guerilla warfare. Thousands of homes and granaries on the farms were burned. Millions of cattle, horses and other livestock were slaughtered. Thousands of kulaks resisted the new plan by refusing to sow grain in the spring, and by making the peasants believe that if they saved grain, the government would take it all away.

Even "letters from God" were received by the abysmally ignorant peasants, threatening eternal punishment if they sowed any grain, or joined a collective farm. These letters were written by the old clergy remaining from the days of the Czar. But they were finally liquidated.

One of these old time priests, with long black hair and beard, I saw at Michurinsk working as a street sweeper. Even the most illiterate peasant figured out finally that the "letters from God" did not originate in heaven.

In the North Caucausus this revolutionary movement was especially strong, but Stalin and his staff were equal to the test. In order to save the peasants in thee regions from mass starvation, many trainloads of kulaks were sent to the northern forest along with the peasants they had deceived.

They were given work. Here they were paid the same as any other workers, but they also learned the law that "He that will not work, may not eat." The decree of Stalin is: "Work is the basis of all life; he who will not work may not eat." After two years they were ready and eager to return.

#### **Niels Praises Stalin**

Niels made the following observations about Stalin after his return from Russia and before anyone knew about the wholesale purges of the late 1930's. Historians have estimated that millions died under the hand of Stalin and his regime.

Stalin, as the mastermind of the Soviet Union, is not a dreamer or Utopian Socialist but a hardheaded

business executive who believes in bringing the ideas of Marx and Lenin up to date in this day of automatic machinery.

If Stalin had been born in America and had been carefully shielded from the ideas of Marx and Lenin, he might have become a great railroad president or head of the Steel Trust or other large corporation.

Stalin is a native of Georgia in the Transcaucasias. Georgia is a nation noted for its handsome men and beautiful women. In appearance Stalin is a typical Georgian.

His tremendous achievement in liquidating the Kulaks and collectivizing the agriculture of one-sixth of the world's surface in spite of bitter and bloody opposition shows him to be a veritable human dynamo of relentless efficiency.

The Soviet Union owes much to Stalin for his willingness and ability to carry such a load. Stalin holds his position merely because he is the most able and efficient organizer in the Party, and his superb ability is generally recognized.

Niels' approval of Stalin was in line with many in the country who did not know the full extent of the Russian atrocities and suffering. Russia was still a mysterious country far removed from the domestic problems that assailed the United States. As history would later decide, Stalin, indeed, had "relentless efficiency."

### APPENDIX B

### Niels Ebbesen Hansen, Writer

Niels enjoyed writing. From the early days as a teen-ager, when he kept a daily journal, to the last years of his life, Niels kept his pen flowing. He authored books and composed poems. He wrote for scientists and farmers. He liked to share ideas on many topics with peers and the general public.

Much of what Niels wrote was published in the form of reports to a specific audience. He responded to criticism and in support of horticultural research as the answer to many problems. Although he could type, he usually wrote by long hand at his roll top desk or stood at a tall desk that he used when he tired of sitting.

His books were normally oriented toward the scientific. After graduation Niels wrote a handbook for farmers printed in Danish and Norwegian titled, <u>Handbook of Fruit Culture</u> and <u>Tree-planting</u>", which sold for 50 cents. A copy of this book still exists in the Iowa State University library. He helped Professor J. L Budd write the <u>American Horticultural Manual</u> in 1902 and they co-authored <u>Systemic Pomology</u> in 1903. After his return from Russia in 1934 he sent back a book, <u>A Hundred Points</u>, that outlined suggestions for improvements in Soviet agriculture. Four thousand copies were translated into Russian and distributed throughout the country.

Not all of his books were scientific. He compiled a series of articles on the Fine Arts, a subject dear to his heart. The Return of the Carpenter, written during the Great Depression, espoused his socialistic views on the role of government in making life better for America. Excerpts from Russia as Observed by an Agricultural Explorer, are included in Appendix A. Unfortunately none of these books were published.

An incomplete handwritten manuscript, "The Land of Noah's Ark", appears to be a script that he used for the lectures he gave using lanternslides of pictures he took during his trip to that area in 1897. The text is filled with facts and astute observations of the many nationalities and cultures he encountered. This manuscript is also in the personal papers of Helen Loen.

His first known chapter book, <u>Carl og Otto</u>", written at age ten in Danish, was confiscated by a misguided schoolteacher. She returned this charming effort to the author, but, as Niels whimsically reported, "This ended my literary career".

The precious, fragile book, meticulously written in pencil in childish cursive on twenty-six half sheets, was stitched together with thread. It has been preserved for over 125 years by the family, and is now in the possession of granddaughter Helen Loen.

### THE FIRST BOOK OF NIELS

## Carl og Otto

### Written 1876

(Note from Niels: "Book 1 of Carl and Otto, a novel story written in Danish by N. E. Hansen. 10 years of age. The paper is a gold leaf book which father used.")

Thanks to Tove Andersen, a family member, for the translation. Notice the use of dialogue, a rather sophisticated device for a ten year old!

## Chapter 1

#### A Live Saved

Carl and Otto were brothers and their last name was Bernhardt. When my story started they were fourteen years old. They were twin brothers. Their father was dead and their mother was very poor and they lived in an old house in Copenhagen.

Carl and Otto had several brothers and sisters who were in foreign countries. They had gone out in the big, wide world to try to get rich. They got letters from them and sometimes money.

Besides Carl and Otto, two were still at home. Their names were Peter and Amalia. They were a little younger than Carl and Otto.

One day Carl and Otto went to their mother and asked her if they couldn't go out into the world. After they had pestered her for a while, she said that they could and she thought to herself, "I hope my sons will succeed when they get out into the world." After they had packed their things and their mother had given them many instructions they went out into the world.

Carl and Otto had been given a few dollars by their mother when they left and with that they traveled by train to Viborg where they found work taking care of animals for five dollars per year on a farm. Their master's name was Søren Holders.

A month went by when one day, as Carl was watching sheep, he suddenly heard someone call, "Help! Help!" from a pond about 50 feet away. Carl ran to the pond as fast as he could and saw Søren Holders in the water. He had fallen in the water by going too close to the pond and had fallen in, and since he could not swim, he was about to drown.

When Carl saw him he jumped in the water immediately and swam to the place where the master was in the water, and grabbed his master's hair, with the other he swam to the edge, but he knew that if help did not arrive, they would both drown, but Otto had come on the scene in that very moment and he saw the his brother could not swim with his master in one hand, and Otto jumped into the water and swam to them and between them they got their master up on dry land. As soon as they reached land Søren Holders fainted. So Carl and Otto threw a little water on their master's face and he came to himself in a short time.

When he heard how he had been saved, he said, "Carl and Otto, I thank you so much for having saved my life. I will give you each a reward and a job in my cousin's office in town. Here is his address and on Sunday come for a little visit to my farm if you can."

"A thousand thank-you's, Mr. Holders, but when should we go?"
"Tomorrow, if you want to," said Mr. Holders, "and here is the

reward and the address." And Mr. Holders went to his farm.

## Chapter 2

## A Thief Caught

The nest morning Carl and Otto said goodbye to Søren Holders and went to town. After they had walked a while, Carl said,

"The address is "Christian Holders, Merchandiser, 37 Øster Gade, Viborg', but I don't know where Øster Gade is, do you, Otto?"

"No, Carl, but let us ask." Carl asked a man and the man answered that it was three streets further east.

Carl and Otto went that way and soon came to a very large shop. Above the door was a sign which said:

Peter Holders and Co.

#### Merchandiser

"This must be it, let us go in" said Carl. They went in and were lucky to meet a man. They asked if they could see Mr. Holders. The man said, "I am he, sir, what do you want?"

In answer to the question Carl took a letter out of his pocket and gave it to Peter Holders. The letter was on which Søren Holders had given them to give to his cousin to show who they were.

When Mr. Holders had read the letter, he said, "Sirs, I have two openings in my office, which you can fill. Wages are 15 dollars per week. You can start tomorrow." And he left, and Carl and Otto went to their room.

Carl and Otto were in their places in the office the next morning and the day went and the evening came. But Carl and Otto stayed to write a letter to their mother in Copenhagen. When they had been writing for a while, Otto suddenly said, "Psst! I think there is somebody out in the hall!"

Carl and Otto were both quiet and listened. Yes! There was someone walking in the hall, he walked so quietly, so quietly. Click! Click! Now a door opens to one of the rooms close to the one where Carl and Otto were. Otto remembered that that was Mr. Holder's off and he had lots of money in a cabinet. In a second he realizes that it is someone who will rob the safe!

He whispers to Carl, "Follow me." And they tippy-toe after the thief. He has left the door open. Otto looks in and he sees --- the thief in the process of opening the cabinet but with a fake key. He lays his hand on the money! But in that very moment he finds himself caught between Carl and Otto. He gets tied up and Carl holds him while Otto walks out the door to find Peter and some police officers. Otto returns in a few minutes with

Peter Holders and two officers. The officers took the thief to the jail.

## Chapter 3

### Otto's Adventure

The following piece was in the newspaper the next morning:

### Robbery in Øster Gade

A shop in Øster Gade was broken into last night at 7:30 and the man was in process of taking money when two brother who work in this shop, and their names are Carl Bernhardt and Otto Bernhardt, they caught him and the thief was sent to jail. He comes up for trial next Tuesday. He gave his name as Martin Flødeskæg.

Carl and Otto also read about the robbery. They got a message during the day from the Mayor that they should be at the trial on Tuesday with fresh hay in their shoes.

Carl and Otto were there on Tuesday, and Mr. Holders and a couple of officers. The prisoner was brought in and Martin Flødeskæg was found guilty after about an hour. And the judge said, "Martin Flødeskæg is going to prison for five years in Viborg."

Four days went by and Sunday came. Carl and Otto visited Søren Holders and he said to them, "I'm going hunting today. Would you like to go with me?" Carl and Otto said, "Yes, sir, we would like that."

Mr. Holders rang a bell and a servant came in through the door. "Saddle three of the best horses, " said Holders to the servant, "and bring me three rifles and three pistols and three horns full of powder."

Holders, Carl and Otto were on horses within ten minutes and were on their way to the forest which belonged to Mr. Holders and the hunt began.

Mr. Holders saw a couple of rabbits and gave them two rifle shots which killed them. He rode over to them and put them in his little bag. Carl sot two foxes, three quail and four snipes. Otto, three foxes, four wild geese, and three wild ducks. Mr. Holders, two rabbits, three foxes, and five wild ducks.

#### But Otto had an adventure which I will tell:

When the hunt started, Otto had tied his horse and walked further into the forest with his hunting dogs when he saw a little creek about 19 feet away where a beautiful deer was drinking. He gave it a rifle shot but the shot only hit one of his ears. He turned around suddenly and came directly for Otto. He gave it another shot. It did not hit. Otto dropped his rifle and the pistol and went up a tree just in time to get out of the way of the horns. And there he sat, up in the tree with the deer at the foot of the tree. Otto called his dogs and they ran right away to Carl and Holders who came and gave the deer a shot till it fell dead in the grass. Then they all went home.

## Chapter 4

## Carl and Otto Move to Jylland

A couple of years went by. Carl and Otto had often written letters to their mother and money too. Now they wanted to go to Copenhagen and see their mother since they had only seen her one time since they went out into the world.

They got permission from their master to stay away two days and they took the train to Copenhagen. They were very lovingly received when they walked into the house. The mother hugged them. Peter and Amalia, who were now fourteen years old and Carl and Otto were sixteen, kissed them both.

"Mother," said Carl, "we are thinking of traveling around in the world a bit. We have saved some money and I think we will go to Jylland first. What do you think of that?"

"Yes, I like that, then you can see something of the world, but please write to me often, Carl and Otto, won't you?" said the mother.

"Yes, we will do that, Mother."

"When are you leaving?" asked the mother.

"In a week," said Carl and Otto, "when we have been to Tivoli and had fun."

"Come, my sons, and have something to eat since it is evening," said the mother.

After they had eaten, Carl and Otto, Peter and Amalia and also the mother went to Tivoli to hear a concert. Carl and Otto when they came home resigned from their jobs because they wanted to travel to Jylland for a while. A week later, Carl and Otto parted from their mother and Peter and Amalia and they went to Jylland.

Their adventures while they were there will be reported in Book number 2.

#### A COLLEGE SPEECH

During his junior year Niels composed a speech entitled, "The Lone Star" that he presented to the Philomathean Society. It was printed a year later in the June 1887 issue of the Aurora. The speech is notable for the triumph of his struggle over a speech impediment. He noted in a letter to his father:

Last Saturday evening I gave a twelve minute speech in the debate club, Philomathean Literary Society, to which I belong. Such a speech has to be written in a language as "flowery" as possible and I did that. It wasn't too bad. On Friday next week I'm going to give a small lecture, or rather, read it for the Science Club to which I belong.

The subject for my speech was the American poet, Edgar Allen Poe. I used a comparison from the Arts. I said the works of Poe give us an impression similar to the old Italian paintings. The colors were often bright red and brilliant with lot of light right next to the darkest shadows and the edges of the figures were hazy which gives lots of room for your fantasy.

#### A Lone Star

In the hearts of many men untold powers lie latent awaiting only fitting opportunity for development. There are powers for good, powers for evil; powers to sway men with the magic spell of eloquence and song; powers to inflame men with scoffing jeers to devilish deeds; powers that would oppose the legions of darkness and lead onward to victory and eternal glory the host fighting for the right; powers that would cause the possessor to

work with terrible malignant energy for evil and drive him to become the slave of base passions.

But often these powers for good remain latent all through life, no awakening hand ever causes them to spring into activity — no fated Prince ever enters the enchanted palace to kiss the sleeping beauty into conscious life.

When active, there is a continual struggle or mastery over the soul. Thus it has been with many men of genius, and prominent among them we find Edgar Allen Poe. A power for evil, like a torpid snake basking in the sun, became living in the light of his genius and thence was waged a bitter warfare. As these powers alternately became uppermost, so was his life – good or evil.

His life has been sketched in many ways. Some have thought of him as a man, evil in thought and deed, who good works do not balance his transgressions. Others, never weary of pointing out beauties in his poems, paint his life in glowing colors and pass lightly over the dark pages of his life-history. Why, you may ask. The answer lies in the doubleness of his character. Some have looked only on the dark side of his life, and others only on the side glorified by his genius.

But while this two-fold aspect of character has deceived many in forming a just estimate, I think the truth lies in the golden mean. Thousands have been guilty of his excesses and the world has never heard of them, but with Poe, the dark pages in his life-history have been illuminated by the noon-tide light of genius and opened to the gaze of all the world. The brighter the light, the darker the shadow.

If "blood will tell" there is extenuation for Poe. His whole life was a struggle with an inherited taint. An orphan at two, he was adopted by a wealthy benefactor, every luxury was lavished upon him, but there was one fatal defect in his education, his moral nature was not trained — the thistles of character were not destroyed. We see him dissolute at school and college, a reckless spendthrift, quarrelling with his kind patron, leaving him in anger, taken back a prodigal son; next a student and soldier, but finally estranged from his long-suffering friend who had been so like a kind father to him.

Now he is alone in the world with no friend but his facile pen. Next we see him, a wandering bohemian, a soldier, a deserter. He is adrift on the stormy sea of life and cannot guide the boat with a steady hand. At last at the age of twenty-two, he becomes an author and wields the pen, now here, now there, to the time of his tragic death - a period of seventeen years. The story of these few years is a sad one, yet through all the evershrinking scenes of his life we see shining the star-pure light of his genius.

His was a sensitive soul, illy fit to bear the rough struggle with the outer world. The times in which he lived were unfavorable for such as he. It has been said that he was "an artist in an unartistic period and had to grope his way, to contend with stupidity and coarseness." It is true and pity 'tis, 'tis true. He was like a winged songster of the Sunny South that has left its native clime and flown toward the everlasting snows, and then, chilled by the rude winds of the icy North, perishes. We read of his mental suffering and great poverty and wonder that he did not sooner fall by the wayside.

He himself has said that circumstances beyond his control have limited the extent of his literary work. And need we wonder at this? The bringing forth of rare works of genius is like that of an exotic flower, that, growing under sunny skies, nurtured by the cheering rays of a tropical sun and wooed by balmy zephyrs, blooms luxuriantly and delights the beholder with its marvelous beauty. But if it be where Boreas, the North Wind, comes with his blustering attendants and hold his icy court, it droops and dies.

Let us look for a few moments at the volumes that constitute Poe's title to fame. In his poems we see angels and demons, beautiful seraphs and satanic Titans, ghouls, gnomes, imps, mimes, spirits and fantastic phantoms, flitting before our startled gaze in phantasmagoric splendor. Their speech seems dreary echoes amid wild glens in the enchanted land of fancy.

His word-paintings remind me of the masterpieces of some of the old Italian artists — the colors are often lurid and brilliant, with intense lights and deeps shadows; the treatment is bold, and there is a mystic obscurity of outlines which gives free play to the imagination. Poe is a painter of unknown landscapes in the boundless realm of thought; of places where, as he sings,

"Shrines and palaces and towers

(Time-eaten towers that tremble not!)

Resemble nothing that is ours."

We get glimpses of vast, unexplored field of thought, and by the light he casts upon them, see wonderful sights, but the glow is lurid, "that scorches but does not warm" and has not the reviving, quickening influence of the sunlight of heaven.

But ever his numbers enchant us by the subtle spell of melody, more melodious words were never penned and their soul-stirring cadences, rising and falling like the plaintive music of an Aeolian harp moved by the sighing winds, thrill through the halls of memory again and again, like the sad chords of a song of long ago.

Poe is not an optimist; he is not like Longfellow, a poet f sunshine and hope and love, singing of the beautiful things of this world and of the silver lining to every cloud, but he sings with soul-touching pathos of the shadows of gloom of life. To lighten an idle hour, and rest the weary mind, read the poet of sunshine, Longfellow; to gain an insight into the dark shadows cast on the path of life by the vast unknown, read the poet of shadow, Poe.

What a mournful tragedy is his life! What a contrast between his moral character and his poetic genius! They were like a ruined castle at night illumined by the pure rays of starlight.

Tempest-tossed on the surging sea of passion, his frail bark of life stranded on the desolate rocks of intemp-rance. But though he thus miserably perished, let us remember that he never abused his gift; not an impure word or thought is contained in all his works. This is one of the glories of Poe.

Reading the inexpressibly sad story of his life, we learn that genius without self-control is of little avail.

In the case of Poe, what untold possibilities were never realized! With what a multitude of thoughts might he have enriched the

world! But alas, he proved unfaithful to his trust and his ten talents were not used to the full.

We honor him for the work he has done, but think with a pang of sorrow of the "unsung songs" that the world never heard — the wealth of melody that is forever lost!

#### **POEMS BY NIELS**

The poetry of Niels was generally philosophical and had a religious nature. It was a release from the scientific writings he was often required to produce. He liked the discipline of putting words together to form a structured whole. He wrote his first poem at age twelve and continued this form of writing throughout his life.

The following poem was tucked into Niels' 1882 journal. Although the authorship is attributed to "An Observer", Niels probably wrote it, as evidenced by the notation at the end: "March 18-20 1882," which is not the notation one would find from a copied poem.

### How to Write an Essay

(March 18-20 1882)

(age sixteen)

First, hie thyself to a stationery store,

Then hie thee home and con the dictionary o'er.

And if you only have 'bout a thimbleful of brains,

Go search the 'cyclopedia for the wisdom it contains.

Put on your thinking cap and then proceed to think,

And use a ream of paper, and a bottleful of ink.

Make quotations — long and many — from the authors you can find.

And so it will sound "pretty" have some poetry interlined.

Put in something original, this is, if you have any

For that is the great want of most essays, long and many,

And when at last the dreaded Rhetorical draws near,
And teacher calls your name, why step up without fear.
Read your essay in a voice that is both loud and clear
And I hope that much applause will quickly greet your ear.

A handwritten note from Niels explains his thoughts about the poems he wrote during his college years:

Sixty years ago, in 1886, I wrote the poem "Psyche" as a 20-year-old Junior in Iowa State College, Ames. It was published in the <u>Aurora</u>, a monthly magazine sponsored by the four student literary societies, in October 1886. The verse form is that of "The Clouds" by Shelley. As a South Dakotan since the fall of 1895, it may be worth including in a South Dakota poetry magazine.

Three poems in all were published in the Aurora: "The Old Church Organ" May 1886; "Ideal — Real" September 1887. (I intended this to be my leaving Literature for Science.)

(Note: Ideal/Real was written two months before Niels graduated. One can sense that the "Ideal" for him would have been literature, but common sense, the "Real", set him upon a different path.)

## The Old Church Organ

(May 1886)

Far way from town and city
And their eager strife for gold,
On a lofty, tree-clad hill-top,
Stands a church of ancient mold.
From the tower the eye can wander
Over fields of golden grain;
Rippling streamlets, grassy meadows,

Vine-clad hills the eye detain.

Happy homes bedeck the landscape,
Half hid by a veil of green;
Rural comfort, peaceful plenty,
Calm contentment there is seen.

Now its walls of stone are moss-clad,
Marked by Time's unyielding hand;
Wind and storm the tower have beaten,
Till it scarce can longer stand.

Skyward points the ancient tower,
There the old church bell we see,
Pealing forth on Sabbath mornings
Tidings glad to you and me.

Many legends round it cluster, Generations passed away Left behind, in song and story, These, to mind us of their day.

There, upon the holy Sabbath,
Gather young and old to hear,
From the white-haired, aged pastor,
Gospel words of blessed cheer.

There he tells the wondrous story, Story old, yet ever new,

Of our Master's might labors Men to save and sin subdue.

Then the sacred words ascending,
Upward borne on wings of prayer,
Cheer the hearts with sorrow laden
Lighten loads of wasting care.

By the altar is an organ

Lofty, old, majestic, grand,

Carved in forms of wondrous beauty

By an artist's master hand.

Oceans vast of music mighty,
Liquid waves of melody,
Latent lie in that old organ
Longing for sweet liberty.

And when hands of music's master
Touch the keys with wondrous skill,
Mighty waves of liquid music
All the air with beauty fill.
Unseen hosts of angels enter
And with sparks of heavenly fire,
Slumbering embers on the altars
Of our hearts to flame inspire.

From the people there assembled Bursts a song of jubilee,

Sacred hymns of ships float gently
On the sea of melody.

But the master at the organ

Durst not play untrammeled, free,

With the full force of the organ,

But must play with softened key.

Durst not loosen all the fetters
Of the tones imprisoned there,
But like Aeolus, the wind god,
Must restrain with watchful care.

For the old church roof is crumbling, Feeble are the walls of stone, From the weather-beaten building All its former strength has flown.

And the rhythm of the music,
Thrilling thro' the hallowed air,
Makes the time-worn structure tremble,
Swaying with the measure there.

In the heart of every poet,
Which the glow of genius fills,
Likewise is an organ mighty
That with sweetest music thrills.

When the spark of inspiration

To him cometh from on high,
Strains of music from the organ
Burst, the world to glorify.

Chords celestial, heavenly music, Rolling out like molten gold, To the souls of men revealing Glorious thought to them untold.

For the poet is a prophet,
Seeing things unseen by men,
Hearing songs divine about him,
Voices vast beyond our ken.

Vistas vast of heavenly glory,
Scenes celestial open, where
Mighty hosts of angel voices
Fill with praise the perfumed air.

And in ecstasy the poet
Strikes the keys with master skill,
And sweet symphonies of glory
All the air with rapture fill.

But he dares not play untrammeled,
Dares not free the melody
But must e'er restrain in sorrow,
Chords of hidden harmony.

For he knows that he is mortal,
And that mortal power is vain,
So restrains his holy ardor
Lest his heart should break in twain.

(October 1886)

# **Psyche**

(Reprinted in Pasque Petals, July 1946)

Sometimes I have seen in the sunlight gleam
A beautiful butterfly bright
Mid woodland bowers and fragrant flowers
Like a messenger of light;
In silvery sheen, like the fairy queen
Titania, queen of the air,
Hither and thither, I hardly knew whither,
It flitted in beauty there.
In the leafy green I have sat and seen
The butterflies come and go,

In midair meeting, each other greeting
With gladness, but parting slow —
Their wings in motion, like waves on the ocean
When gently they rise and fall,
In beauty flitting past where I was sitting
'Neath the dome of the woodland hall.
And I have wished ever that depart they would never
From the sylvan scene again,
With its leafy bowers and fragrant flowers,
But alas, my wish was in vain.

Sometimes I ponder, in reverent wonder, As I look at the nebulous light, Whether, when dreaming, and the bright stars are gleaming Attending the queen of the night, My soul then starting, from the body departing, Speeds on a journey through endless space — From star to star, like a light from afar, Alone a vast pathway to trace, If from world to world, with wings unfurled It flit mid unseen powers – Mid swift-winged cherubim, angels and seraphim, Like the butterfly mid the flowers, Where a melody glorious, from powers victorious, Resoundeth for evermore, The music in motion like a mighty ocean — A sea without a shore. O what wonderful things it sees as it sings And the music of the spheres, On earth never heard, like a soothing word, It with mystic magic cheers! But when the gleam of the morning beam Streams through the clouds of our world With speed of thought to my body is brought My soul- and its wings are furled.

Fast flit the years, with their joy and tears,
And one by one we go
To where no chime of the bells of time

Is heard by friend or foe.

O God, may I never from this earth dissever,

Forsaking this temple of clay,

Before unto thee I have come to be free

From the fetters of sin alway.

When Thine angel then calleth, like a leaf that falleth To Thee I will gently go,
And my wings — as of old of fair Psyche was told —
Will be pure as the driven snow.
For Psyche is I who will never die,
But through endless aeons of days
With white clad legions in heavenly regions
Sing holy anthems of praise.

Near the Jasper sea we will ever be,
As sung by the prophets of old,
And our banners unfurl o'er the Gates of Pearl
Of the wonderful City of Gold.
Like a bygone dream, our earth-life will seem
On that bright celestial shore —
Where God alone, on His great white throne
Reigneth for evermore!

## Ideal/Real

(September 1887) (Reprinted in Pasque Petals, May 1946) I built a castle Bright and fair

Amid the clouds —

'Twas made of air.

'Twas beautiful, I grew apace Till scarce I could Its contour trace.

A glow, a halo
Round it spread,
And quick my fancy
To it sped.

And there I lingered,
Gleaming gold
And gems of thought
A hundred fold.

But soon, ah! soon
The castle fell —
'Twas common sense
That blew — ah, well!

Niels extended his fondness for poetry into his love life. Shortly before he and Emma were married he mentioned writing poem with her:

How I look forward with pleasant anticipation to next winter when we will be "at home" together. We can read some good books together and write that love poem together that you mentioned in one of your letters recently. It will be a happy home because we love one another with all our heart.

No listing of Niels' work would be complete without including the stanzas he wrote in 1908 for the school song of South Dakota State College, "The Yellow and Blue":

#### The Yellow and Blue

(1908)

We come the Sioux and the Missouri,
The Cheyenne and the Jim,
From pine-clad peaks of the Black Hills,
Brimful of vigor and vim.
We sing the song of the prairie,
The home of the Yellow and Blue,
The gleaming gold of the cornfield,
The flax of azure hue.

The glorious haze of the harvest,
Where sky and prairie meet,
The golden gleam of the sunrise,
The blue of violets sweet,
The yellow and blue of the rainbow,
The azure of noonday sky,
The golden hair of the maiden,
The blue of her sparkling eye.

The yellow and blue of our banner,
The cups won on the field,
The golden words of orations
That honors unto us yield;
We sing the song of the prairie

Where many a mile we may scan;
And the blizzard breath from the northland
Develops the fighting man.

The broncos we break for the round up
And ride the range all day;
We kill the coyote and gray wolf
As snarling they sneak away.
The peace pipe smoke with the red man
And listen to legends of gore,
The loud tum, tum of the Sioux's drum,
The tomahawk dance of war.

Rejoicing behold we the sunset
O'er waving plains of wheat
And Paradise portals of sunrise
Aglow with glory replete;
Oh joyous life of the prairie,
More free than o'er mountain and vale;
To S. D. S. C. thou callest,
Whose honored name we hail.

Then forth to a bold life of action
Both stirring and grand for all;
As knights of old battled evil
So we are heeding the call.
We scorn the faint-hearted coward,
A slave for the galley is he.
We cheer the knights of the present

### And fight on to victory!

Niels wrote a souvenir pamphlet of poems for 1923 Hobo Day.

## The Chrysanthemum Show

(1923)

A Day in Japan
Is the annual plan,
State College invites you all
To heed the October call
To see the big show
Where the huge blossoms blow

Chrysanthemums yellow,
Glowing and mellow;
Chrysanthemums red,
What a radiance they shed
Chrysanthemums white,
A wonderful sight!

In the fountain flit the gold fish Like the sunsets' golden gleam, In their iridescent glory They are like a fair dream.

The Flower Speaks:
I am the lordly Chrysanthemum
As yellow and red as can be,
I struck this country with out a s(cent)

And now I am rich as you see.

I belong to the floral 400
The companion of golden hours,
I move in the highest society,
The Micado of all the Flowers.

So come ye now and be merry,
In Samurai splendor we bloom
You will linger long when the incense
With fragrance fills the room.

This is the national flower

Of Japan for a thousand years,

With this as his people's banner

No harm the Micado fears.

Behold the Great Feast of Lanterns,
The souvenirs of Japan.
The mystic bells of the temple
And parasol, gourd, and fan.

See the cranes and cloisonné vases,
The monkey cane of bamboo
And the world-upholding turtle,
The master of the Zoo.

The elephant, of good luck the symbol, The wall mats and vases tall, The costumes of courtly attendants, The oriental splendor o'er all.

The Samurai Knights would feel at home In this day of old Nippon.
Into the mists of a thousand years
These masters of men have gone.

The Samurai silence is broken
By tinkly temple bells
That fill the air with melody
O'er prairie and sylvan dells.

The Buddhas in calm contemplation
View the scene as a thing apart,
All will be well in a thousand years
Is the message of their heart.
Invitation
Through the haze of a golden October
Come in your chariots of steel,
Rejoice at the glory of autumn,
This magic beauty you'll feel.

The air will blossom with melody,
And this is their message dim:
"He who careth for flowers,
Will also care for Him."

On The Road To Hobo Day

(1923)

(With apologies to Kipling)
On the road to Hobo Day
Where the flying tackles play,
At the football boys we wonder
As they crash across the way.

On the grandstand plays the band,
And many thousands of our land
Come from North, South, West and East
To attend this splendid feast.

The rooters roar their welcome, The Cheermasters do their best And the multitude assembled In their cheering do the rest.

The costumes of bygone centuries When Knighthood was in flower, The gleam of sabers flashing, The soldiers of this hour.

The fantastic freaks of other worlds
As well as of today,
The fairies on tiptoes floating,
The gypsies in gala array.

Arabian sheik and Persian prince, Indian maidens in costume gay, The clowns and pitchfork devils, All on this Hobo Day.

The Chrysanthemum Show charms thousands,
The Feast Of Lanterns glows,
Ten Thousand plants are blooming
More radiant than the rose.

The student stunts in the city street,
The floats pass in grand array,
The tumult of cheering thousands,
The blare of bands as they play.

The battle fierce of football,
The contest of giants today;
In the College Grove the barbeque feast,
All this is Hobo Day.

The Hobos Speak:
This is the message we hobos
Bring to your minds today:
We ridicule all snobbery
So watch us as we play.

Our King and Queen reign over us
In rags and tinsel gold,
We honor the man and the woman,
But not the diamonds cold.

"A man is a man for a'that"

Come whatever may,

"The gold is but the guinea stamp."

This is our message today!

### The Folks At Home

(1923)

Hobo Day is not complete, If you do not bring a treat To your own folks left at home From wherever you may roam. "Say it with Flowers" is our motto, The message of the heart, For their sake heed this message And you will do your part. So why not leave your order For a box of flowers fine! To be sent as soon as open, We will drop them all a line. Or take them a potted lilly, Geranium or a fern, For this their hearts will thank you. You have done them a good turn.

## **PASQUE PETALS**

Niels contributed a number of works to Pasque Petals, State Poetry Magazine, the official magazine of the State Poetry

Society. The first poem that appeared was Niels' reaction to the evolution controversy engulfing the country.

## The Monkey Convention

(July 1932)

In a zoo one day, I saw a monkey swinging by his tail.

"Mankind," I mused, "is to the monkey as a mountain unto a dale."

But instantly behind the bars a monkey shrilled at me:

"I say, man is not a member of the monkey family.

We monkeys have met in convention, but not with glee.

Indignant we were by evolution news from Tennessee.

We met to deny any kinship with poor, degenerate man;
We claim our evolution surpasses all that he began:
No monkey takes all the cocoanuts, leaving others to die;
We have made no murder machines that other monkeys might lie

On the field of battle, unburied beneath the silent stars,

Splendid young lives snuffed out — sacrificed to the terror god Mars.

We have never underfed or starved the babies of our clan.

But man is the cosmic killer, disdaining the jungle ban!

Our youth we have never underfed, nor kept the light away;

Nor worked them in factory, mill and mine, with no time left for play.

So 'neath the spreading cocoanut palms our resolution ran: We monkeys deny all kinship with, and are better than man. Man claims descent from our noble Simian ancestral tree, Man — the villain and the black sheep of the monkey family!" Niels expressed his anti-war sentiments in a series of poems written shortly after the Second World War. The devastation of the atomic bomb and the talk of its continued use as a weapon of war, caused him to reflect on Man's inability to find solutions for the world's ills.

#### **Birth of Time**

(January 1946)

The Birth of Time is written only in God's Birthday Book,
When stars, suns, and planets danced and constellation shook;
The March of Time concerns us mortals here below,
Marshaling our friends against the sinister foe.
But The Death of Time is when God forsakes
His loving care over our human aches.

God was tired when Noah built his ark, Weary of war and exploitation stark;

Tired when the Israelites for the Golden Calf pressed their demand;

Tired when He kept Moses out of the Promised Land;

Felt better when He saw the Child in the Manger,

The world got relief from the deadly danger,

Tired when Men make war — such a leader uses cannon, not his head.

Therefore, the world might just as well be dead.

But God says, "Thinking is necessary for you and for me, Use your head and the whole world will be free."

Man makes the garden; God makes the seeds,

It is up to man to cultivate and keep out the weeds.

#### A note from Niels accompanied the following poem:

This poem is an experiment. It was composed by suggesting to the subconscious mind a program for the next day. This was just before retiring. Early the next morning, December 7, 1945, the poem was ready to be transcribed as fast as it was possible to write. The method has been used by poets, authors, composers, inventors, and other mental workers. Even financiers like to think overnight on a big deal.

It is possible to make your subconscious mind work for you. Read "Workshop of the Unconscious" by Brand Blanshard, a professor of philosophy at Yale University, in the American Mercury, December 1945. The article suggested this experiment.

#### **A Russian Cartoon**

(February, 1946)

Upon his deathbed lies a man with long white beard,

The end is fast approaching, it is feared;

No aid is possible, more than one hundred years have passed

Since this old man was born. So at lastHe nears his end; his name is Capitalism,

His life history we can see as through a prism,

Some colors brilliant, some dull and black;

Some leaves record a glorious fight to save the nation,

Some: the guillotine, the torture cell, the rack.

On others: War and bombs leave us in consternation.

A dozen doctors stand about the bed,

Each one perplexed, and can only scratch his head;

Some have a bay window; all look well-fed.

Only one doctor, eager in professional zeal

Gives a spoonful of medicine from a bottle labeled "The New Deal."

But still the patient lies in a trance

Never again to exploit, to drink, to dance.

Capitalism is dying and cannot be restored to life:

Going fast, his career of cruel cannon, exploitation and the knife;

He has been grasping all the nation's gold,

But the miser, although not wiser, is over one hundred years old.

# Why The Dog Howls

(May 1947)

In a southern mountain region a passing stranger
Saw a hunting dog in pain,
Howling and squirming: a real danger
To anyone in sunshine or in rain.

What's the matter with that dog?"
Asked the stranger. Said the mountaineer,
Smoking a pipe while sitting on a log,
"Tain't no use that dog to cheer,
He's a-setting on an ant hill
And too darned lazy to move from here."

It maybe so with the liberal's will,

He is squirming and howling to the moon,

But too lazy to move off his ant hill: To get off would offend his dignity.

World-wide war is the world's ant hill.

We can kill war if we will.

War is caused by exploitations;

We can abolish it and save the nations.

Take the wax out of our ears,
And hear the message of the years.
Don't be a lazy dog lolling in the sun;
Use insect powder or the fleas will have won.
We must move quickly off our ant hill
And demolish it, or be forever still.

## **Atomic Bomb and Two Loving Monkeys**

(1947)

Upon a tropical Pacific island, one night,
In a lagoon luminous with lambent light,
Two monkeys swung by their tails awhile;
Discussed world politics, the latest style;
Not thinking about angels and seraphim,
But what she was saying to him:
"Man has no horse sense; that's saying a lot,
Horse sense is what a jackass hasn't got."

Here is their red hot message in language terse: It will you in power politics immerse. These two monkeys, one male, one female,
Sat in a coconut palm tree;
He was ardent and his love would never fail;
His wife the lady wished to be.

They were the only two living beings alive,
Only two in a deserted land,
Undisturbed, to pick coconuts and into the ocean dive,
No one else to come and go at their command.
Atomic bombs had killed all mankind;
Only bleaching skeletons could the monkeys find.

As the male monkey pressed his suit,
The female said, "I love you truly, you big galoot!
But note six million years of evolution
From money to man, is this the solution?

Six million years ago, in some jungle den
Two young monkeys started all this muss;
Now the world is back to two young moneys again,
Evolution has been a backfiring blunderbuss.
Wars and work for countless generations of men,
Why should we start this all over again?
If we monkeys begin, don't ever let man in,
That would be a cataclysmic sin.

A perpetual pain in the neck is man;
The world is worse off than when he began.
No education for the monkey nation!

Every one of us must keep his station And preserve the simian reputation.

The first monkey that slid down the tree of life,
Changed his front legs to arms to carry a knife;
His hind legs carried him around,
His mouth made a roaring, senseless sound.
Education made a monkey into a man
And now we're back to where we began.
Come, my beloved, let us swing by our tails to and fro,
But let no man ever come in to steal the show."

## **Christmas Quatrains**

(December 1947)

Let us remember in our Christmas feast
Three wise men journeyed out of the East
Until they were under the Star of Bethlehem.
The angel chorus sang their anthem.

From the Orient came the three wise men
To find the child in the cradle, and then
They offered gifts rich and rare
To this newly-born king, radiant and fair.

The world was never again the same,
With world recognition of Satan's game.
Fair and just, we must be to all the world:
This was the Christ-flag then unfurled.

Accept the Christ-child world-view of things;

Then you will hear the rustle of angel wings.

Peace to all and the world rejoices.

No atomic bombs, but myriad angel voices.

#### Relax

(March 1948)

The doctors say we must relax -

But what about the income tax?

# The Dog Remembered

(April 1948)

The press tells (September, 1947) a delightful story: Ex-Field artillery sergeant Sydney E. Lyons was reported dead by the United States War Department

After his troop ship was torpedoed by the Japanese.

But he survived and tried to find his wife.

One day on a Sacramento street

Their twelve year-old Pomeranian pooch saw him and remembered.

She started trotting down the sidewalk.

Lyons followed to meet his wife.

That now the happy family in a new home is placed

To the keen eye of this wise old dog may be traced;

Now they intend to purchase a horse ranch

In Paradise Valley, Nevada;

"And the finest dog house that money can buy."

This wise old dog has a home for life, Lovingly looked after by Lyons and his wife.

The last poem penned by Niels was written a year before his death. Daughter Eva discovered it in a desk drawer after he died. It was later printed in Horticuture, a magazine published jointly by the North and South Dakota State Horticultural Societies.

## The Shadow Lengthens

(1949)

The shadow lengthens toward the evening sun.
I will be content when my life's work is done.
He gave me talents to use along the way.
I have tried to use them in His service very day.

Without Thy inspiration all would have been lost, Without Thy sunshine all would be frost. In Thy garden flowers bloom through eternity. Grant, O God, a place with Thee!

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