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CUMBERLAND, MAINE: CARNATION CAPITAL OF THE COUNTRY?

By Sally A. Merrill

Prince Memorial Library

Cumberland, Maine

2016
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The point of departure for this narrative is a paper entitled “Carnations and More Carnations” by Barbara Garsoe. Originally, she presented it at a meeting of the Cumberland Historical Society and later it was printed in the March 20, 2008 Newsletter of that Society. Barbara Blanchard Garsoe was the middle daughter of Howard Blanchard, a commercial grower of carnations in Cumberland from the turn of the twentieth century until 1949, when he died and the business, Sunnyside Greenhouses, was purchased by Barbara Garsoe’s husband, Bill Garsoe.

To elaborate on Barbara Garsoe’s description, I have interviewed two grandsons of former four carnation growers. Phil Chase, grandson of Arno Chase, provided detailed and precise description of particular greenhouse practices and clarified certain procedures. Peter Garsoe, grandson of Howard Blanchard, vividly remembered certain incidents from his childhood. In addition, George Small, son of Maurice Small who bought the Jenkins Greenhouse, added helpful remarks on changes made in greenhouse management. Finally, Don Drew who worked about six years at Sunnyside Greenhouses provided important details of day to day, season to season work. To each of these four persons interviewed, I am indebted.
When people hear the claim “Cumberland was once known as the carnation capital of the country,” they invariably are surprised and curious. Why Cumberland? Why carnations? Who grew carnations on such a large scale? How did the local carnation industry get started? How long did it flourish? Why did it decline?

The aim of this report is to suggest some answers to these questions. At the same time, it may be considered as a case study of the consequences of globalization on a small rural community. During the first half of the twentieth century, the Cumberland florist industry depended for survival on national markets in New York, New Jersey, Boston and Washington D.C. However, when Latin American countries began growing carnations in naturally warmer climates and delivering them in bud form to southern ports such as Miami, Cumberland growers could not compete due to the costs of production. When considering the cost of heat in the winter, labor, and transportation, the costs significantly outweighed the commercial benefits.

In the process of writing this report, an effort is made to illuminate for the current generation, some of the sacrifices endured as well as the work ethic which provided day to day discipline essential for sustaining a livelihood in the florist industry. For the most part, these growers were cheerfully engaged both in their work and in community service. Integrated in families and within the community, they led meaningful lives which sustained them during times of trouble and tribulation.

Sally Merrill

August 15, 2016

Prince Memorial Library, Cumberland, Maine
CUMBERLAND AS CARNATION CAPITAL OF THE COUNTRY

As Barbara Garsoe related at a meeting of the Cumberland Historical Society, “Cumberland was once known as the carnation capital of the country.” Continuing her narrative, she observes,

At one time there were four greenhouse ranges in Cumberland: the Chase brothers, Charles Jenkins, and Sunnyside, owned by Howard Blanchard. Greenhouses were popping up all over – Portland, Yarmouth, Gorham, Biddeford, Lewiston & Falmouth. The small farms were beginning to close and it seemed like a good industry to bring along.  

Around the turn of the twentieth century, several entrepreneurs in Cumberland sought ways to make a transition from traditional farming to the florist industry.

Small farms were declining, and a cottage industry offered a viable model in which people could work out of their homes, and family members might be induced to help. Instead of establishing a business in another town, proprietors could remain home and help sell products commercially and help revitalize the community. The florist industry seemed like a promising opportunity. Carnations were popular and sustainable markets were found in New York and New Jersey.

Carnations are a species of Dianthus, derived from the Greek words for divine (dios) and flower (anthus). These “Heavenly Flowers” were probably native to the Mediterranean region and have been cultivated for at least two thousand years. Carnations are herbaceous perennial plants growing to about 26-31 inches tall. Their leaves are greyish green or blue green. Their flowers, sweetly scented, are produced singly or up to five together in a cyme 1.2 – 1.9 inches in diameter.

Why were carnations chosen? For one thing, they were hardy and their blooms lasted a long time even after they were cut. They had a vase life of 2-3 weeks. That made them good for shipping. Carnations had big full blooms on strong, straight stems. The quality of the bloom depended on the soil and irrigation, two factors producers could influence. Moreover, the plants produced abundantly and many colors were available.

Another reason for choosing carnations was the variety of marketing opportunities. At the time, carnations were very popular. In addition to being featured in floral arrangements or cultivated in home gardens, carnations were worn on special occasions, especially Mother’s Day and weddings.

When Ann Jarvis, a public health volunteer during the Civil War, died in 1905, her daughter Anna Marie Jarvis began a campaign to honor her mother and all mothers. What inspired this campaign was the occasion she overheard her mother praying for a day to honor all mothers. In 1907, Anna Marie Jarvis chose the carnation as an emblem of Mother’s Day because it was her mother’s favorite flower. She chose white because she wanted to symbolize the purity of maternal love. In 1910, she petitioned the federal government to create a national holiday, and in 1914, Congress passed a bill establishing Mother’s Day on the second Sunday of every May. Over time the meaning evolved. Red carnations were worn if one’s mother is alive, and a white one if she had died.

Another holiday was St. Patrick’s Day. Held on March 17, it is the traditional death date of Saint Patrick (385–461). He is the foremost saint of Ireland. Green carnations became popular in Irish-American communities, of which there were a large number in the northeast. At the time, Irish-Americans, constituting ten percent of the U.S. population, settled primarily in the northeast, Boston, New York, Philadelphia, Buffalo, and Chicago. New England states had the top percentage of Irish-Americans: MA (21.1%), NH (20.5%), ME (18%), VT (18%), and RI (17.9%). These communities presented many opportunities for marketing carnations.

In the early seventeenth century, St. Patrick’s Day became an official Christian feast day observed by the Catholic Church, the Anglican Communion, the Eastern Orthodox Church, and the Lutheran Church. This Day commemorated St. Patrick and the arrival of Christianity in Ireland, as well as celebrating the Irish culture in general. Part of the celebration involved wearing green attire and green carnations. Oscar Wilde, the Irish writer, famously wore green carnations.

In Ohio, the scarlet carnation was the State Flower. This choice honored William McKinley, Ohio Governor and U. S. President, who was assassinated in 1901. McKinley regularly wore a scarlet carnation in his lapel.
THE CHASE BROTHERS

Continuing her narrative, Barbara Garsoe observes:

About 1892, the Chase Brothers, Frank and Arno, had a greenhouse on Tuttle Road. By the way, their father was Heber Chase, who died during the Civil War in Salisbury Prison. We have some of his letters written home saying he could hardly wait to get home to see his little boys, Arno and Frank. He never made it, as he died of a disease in prison. Arno & Frank sold plants from a wagon with the name Chase Brothers painted on it.2

The greenhouse on Heber Chase’s land was located on the northern side of Tuttle Road just before the railroad crossing.

Heber Chase (1835-1864) was born in Claremont, Sullivan, New Hampshire. He was the youngest of five siblings, with his brother Henry being the oldest. His father Baruch Chase died in 1857, and so Henry as eldest, then living in Watertown, Massachusetts, became head of the family. In 1860, living with the Benjamin Peirce family in Weston, Massachusetts, Heber Chase was teaching school. On November 2, 1861, in Stoughton, Massachusetts, Heber Chase married Anna Buxton Sweetser (1839-1896). Returning with his wife Anna to Cumberland, Heber Chase taught school and did some woodworking. He and Anna had two sons, Arno born in 1862 and Frank born in 1863.

In 1863, after school closed for the summer, and after the Battle of Gettysburg (July 1-6, 1863), Heber Chase, at age 27, returned to Massachusetts and enlisted in Company H Massachusetts 16th Infantry on July 17, 1863. He served the Union cause with the rank of Private. About one year later, he mustered out and transferred to the Massachusetts 11th Infantry. One of his letters written from Brandy Station, Virginia,3 Tuesday evening, March 29, 1864, he addresses “My own sweet Wife:”

Your welcome letters dated March 14th and 21st have both come safely…and have afforded me immense pleasure. I wonder if it rains where you are tonight? It pours in torrents here; rather very prettily on the canvass of my tent and then just sending a few

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2 Garsoe, Barbara, op. cit.

3 Brandy Station was located in Virginia. On June 9, 1863, it was the site of the Battle of Brandy Station, the largest predominantly cavalry engagement of the Civil War. This battle marked the end of the Confederacy’s dominance of the East. From that point, Union forces gained strength and confidence. By March 1864, when Heber Chase arrived with his regiment, the site served as ground for planning and launching new attacks.
drops through to the interior to remind me that the shingles are not quite waterproof, but I do not mind it. I've got used to this style of existence. Ha, Ha!

Notice the perceptual shift from “pours in torrents here” to “rather very prettily on the canvas of my tent.”

Responding to his wife’s sorrow regarding his trials as a soldier, he continues:

This is very kind of you to weep for me my blessed darling! But you must be courageous of the Amazonian style: the Soldiers wife should be like the Spartan woman; with heart of iron and nerves of steel; or like Hecuba, the wife of the celebrated Trojan Hector, who could stand upon the walls of Ancient Troy and see her husband slain, and his body dragged three times about the city walls at the triumphing chariot Wheels of the brave Achilles. But why do this talk? Tears often visit my own eyes when ruminating upon the loved ones at home and the happy scenes so far – far- away.

Continuing his letter for many pages, “a regular manuscript,” Heber Chase closes,

My love to all and everybody; kiss Arnie and Frankie, and tell them I will come and see them by and by, remember Heber who loves you so dearly, my own Annie!

Reading these excerpts, one begins to understand something about the moral fiber of Heber Chase. Notice his effort to counsel his wife and embolden her to be a Spartan woman “with heart of iron and nerves of steel.” Notice too his effort to encourage her to view with equanimity, like Hecuba, the horrors of war. The tenderness of his love for “Arnie and Frankie” is endearing. This moral fiber is a part of what the Chase Brothers inherited, but it was communicated from father to mother, and then mother to sons, after their father died. That moral fiber was a great gift that helped each brother to continue, as each one encountered challenges in the carnation industry, as well as life itself.

Less than two months later, on May 19, 1864, his wife received another letter from Heber Chase. His situation had changed sharply.

My own darling wife: I am still unharmed and in good health; have been in all the battles thus far during the whole campaign; we are driving the rebels who are now on their way towards Richmond, and we are after them….We have had terrific fighting. I have been providentially spared thus far, have been in the thickest of all the fights….You must write
quick for your letters will help bear me up in this terrible exhausting Campaign; which has continued 16 days without any cessation….

Anna deary I love you and how much I want to see you and the boys; kiss them for me, pray for me as I do for you and the children every night. Oh! How I hope this Campaign will end and the war so I can return to you and peaceful rest.

The reader feels the tears of exhaustion and the waning of energy. And yet, Heber, the soldier, carries forth.

The next available letter, dated October 29, 1864, is addressed to Henry Chase, who at the time was living in Watertown, Massachusetts. The family patriarch, Baruch Chase (1796-1857) had died and as the oldest sibling, Henry, had become head of the Chase family. The letter writer, Charles Brown, wrote Heber Chase’s brother Henry, trying to forewarn him of Heber Chase’s situation “before you get any listings from him through any other source.” Referring to the situation of Heber Chase, Brown writes:

He was with his company on the 27, in the hard fight which we had on that day somewhere in the region of the Danville R. R. He was without doubt taken prisoner by the enemy. The facts as I have them from his tent mate being as follows. The fighting closed at dark. Your brother was detailed with the others to carry off the fight a wounded Chaplain between 8 and 10 P.M. It was dark and raining. His tent mate left him for a few moments as he disappeared, when he approached him to return to him. But he did not see him afterwards. From fatigue and exhaustion, he most probably had lain down and fallen asleep and troops all left the field soon after, …and he was left in the hands of the enemy….These few lines may be a relief to you, if indeed you should not hear from your brother for some time. I am sorry indeed that he should suffer this fate still as he was at his post of duty – faithfully doing his duty….It may be less painful to you to know

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4 On March 8, 1864, General Grant was appointed commander of all Union forces. By the latter part of April 1864, the mud had rapidly dried out. General Grant made plans for a sixteen day assault: Battle of the Wilderness, May 1-9; Battle of Po River, May 10-11; and Battle of Spotsylvania, May 12-16. This span of sixteen days no doubt is what Heber Chase refers to when he says the campaign “continued 16 days without any cessation.”

5 During the summer of 1864, General Grant began a prolonged siege at Petersburg, Virginia, just south of the Confederate capital of Richmond. The campaign wore on and the armies settled into full-scale trench warfare. In this grim struggle, Grant’s army gradually but relentlessly encircled the town of Petersburg with the aim of cutting General Lee’s railroad supply lines from the South. Covering a distance of 22 miles, the Richmond and Petersburg Railroad enabled General Lee to shift troops quickly between the two cities to counter Union threats. When the Richmond and Petersburg Railroad was cut on August 18, 1864, the Richmond and Danville railroad was the only remaining connection from Richmond to the rest of the South. The Danville Railroad was a 140 mile line between Richmond and Danville, and served as an essential transportation link for the Confederacy throughout the war. Danville, Virginia is situated on the Dan River, just three miles from the North Carolina border. Heber Chase must have been part of the campaign in that area and in the process was taken prisoner, and then sent by rail with other prisoners to Salisbury Prison.
that he is prisoner, than that he was...killed, but better still to trust all to His disposal

“Who doeth all things small.”

Within two weeks, on November 8, 1864, Heber Chase from Salisbury Prison in North Carolina, sent this brief and last letter to “My own Blessed Wife:

I was captured on the 28 of Oct. 1864, and …whereby made prisoner of war to the Confederate Govern. I am in excellent health….Please inform my friends and get word to my officers… Unbounded love to all; Kisses to the two little boys. Carry over true & loving Anna. Heber Chase.

On October 27, 1864, Heber Chase became a Prisoner of War at Hatcher’s Run, Virginia. On November 27, 1864, Heber Chase died in Salisbury Prison, overcrowded and plagued by lack of sanitation. 6

These letters are remarkable for the insight into the moral fiber that must have been nurtured in his two “little boys” by his beloved wife Anna. Such a legacy was priceless. Certainly, this legacy reverberated, as each brother made his journey through life.

What inspired the brothers, Arnie and Frank, to grow carnations we do not know. However, we do know “In 1888 Chase Brothers erected their first houses at the old homestead. This was the beginning of the industry.” 7 How then did the Chase Brothers learn to erect greenhouses with no father to guide them?

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6 Salisbury Prison was a military prison of the Confederate States of America in Rowan County, North Carolina. On May 20, 1861, North Carolina seceded from the Union and the Confederacy sought a site in Rowan County for a Confederate Military Prison. An empty cotton factory, soundly constructed and located near the main line railroad, was found on property in southeast Salisbury. The twenty year old building was made of brick and had three stories plus an attic. It was surrounded by a number of smaller cottages. These buildings were hastily converted into a prison compound which was surrounded by sixteen acres of land. The number of prisoners increased from 120 in December 1861 to 1400 in May 1862. During the early part of the war, prisoners received ample food and water, were well cared for, and even indulged in baseball. The real misery for the prisoners began in the fall of 1864. Heber Chase arrived around November 1864. By October 1864, the prison held 5000, and soon after that, 10,000 prisoners. Designed for 2,500 prisoners, the Prison was forced to handle four times that number. When ten thousand men crowded into the stockade by that November, conditions began to change dramatically. Throughout the South there was a shortage of food and the Prison was no exception. Due to the Union Naval blockade, there was a shortage of medicine and medical supplies which resulted in terrible suffering of the prisoners and needless deaths. Eventually, all the buildings were taken over for hospital use, and the men were forced to seek shelter in overcrowded tents and in burrows dug into the hard red soil. Before October 1864, the death rate had been only 2%, but after that, it skyrocketed to 28%. Due to the large number of men dying daily after October 1864, a mass burial system was initiated. The bodies were collected daily and taken to the “dead house” to be counted and loaded onto a one-horse wagon. At 2:00 P.M. each day, this wagon loaded with the dead would be taken ¼ mile to an abandoned cornfield where the corpses were buried. Eighteen trenches of approximately 240 feet each were eventually needed.

7 Cumberland and North Yarmouth Register, compiled by H. E. Mitchell, Brunswick, Maine: H. E. Mitchell Publishing Company, 1904, p. 32.
In Maine, the climate was unfavorable for growing carnations during the cold winters, and yet if the Chase Brothers could devise a way of growing the plants year round, then livelihood would be sustainable. In neighboring towns, other entrepreneurs were establishing greenhouses which they were learning to maintain throughout the winter. More and more evidence accumulated that greenhouses could help sustain a steady stream of revenue. As the brothers experimented, they foresaw some clear advantages to growing plants in greenhouses.

Clearly, though, greenhouses were not invented in America, and builders of greenhouses drew inspiration from the historical record. The challenges of greenhouse growing were not without precedent. How did their predecessors solve key challenges such as heating, ventilation, and water supply? Greenhouses were not a new concept.

The Romans, even before the time of Christ, possessed some knowledge of forcing fruits and vegetables. The Roman Emperor Tiberius (42 B.C.E. – 57 C. E.) enjoyed a cucumber every day. His gardeners used artificial methods similar to those used in a greenhouse system so that Emperor Tiberius could enjoy a cucumber every day of the year. Cucumbers were planted in wheeled carts which were rolled out into the sun daily and then rolled back inside to keep them warm at night. Cucumbers were stored under frames or cucumber houses which were glazed with either oiled cloth or with sheets of selenite. Selenite is a variety of the mineral gypsum and has a crystalline structure. Heat was applied to these houses by fermenting manure, and occasionally by furnaces in which a slow fire of wood or dried manure was kept burning.\(^8\) Much depended on the skill of the gardener.

In northern Europe, framing houses seem to have had their origin in an attempt to grow fruits such as oranges and grapes which were grown to perfection in more southern climates. Vines were trained on the southern side of buildings so plants would receive more light and heat. Vines were protected by using a glass sash leaned against the wall. The effort was to build a rather permanent framework close to the walls on which a glass sash placed as required and formed a closed house. The task of growing oranges presented a significant challenge as the trees had to be protected in winter.

Early in the seventeenth century, Solomon de Gaus at Heidelberg, Germany is said to have constructed a house 32 feet wide and 400 feet long in order to shelter 400 orange trees. The house consisted of wooden shutters placed over a span roof framework so as to form walls and roof. It was warmed by four large furnaces and ventilated by opening small shutters in the sides and roof. In spring, the framework was dismantled. The house was 280 feet long and 32 feet wide. By building a permanent building having opaque roofs and high side walls well supplied with side windows, this represented the next step in greenhouse evolution. Opaque roofs prevented freezing. By the early eighteenth century, glass roofs were found to be practicable.

In this country, the first American greenhouse was erected in New York by James Beekman. A description of this greenhouse was published in the American Florist for February 15, 1887 issue. By the close of the eighteenth century, narrow houses of shed-roof type, having a solid wall to the North and a glass roof sloping to the South were warmed by flues, usually brick, which passed through the entire length of the greenhouse and connected with a brick fireplace at one end and a chimney at the other. In the early nineteenth century, growers made rapid improvements in the form and methods of construction, especially with regard to heating, both stem and hot water.

After the Civil War, the industry proliferated and advanced. According to U. S. Census reports, prior to 1800, only one commercial greenhouse was registered. In 1820, three greenhouses were registered. Before the start of the Civil War, census reports for 1860 show 178 greenhouses. By 1890, 4,659 greenhouses, commercially viable, were registered. Among those greenhouses were those of the Chase Brothers on Tuttle Road.

Periodicals helped spread information. In Hovey’s Magazine of Horticulture for the January 1836 issue there is a description of a model greenhouse erected by Mr. Sweetser of Cambridgeport, Massachusetts. He used glass for the entire south slop of the roof and the south wall. He used wood for the north slope of the roof and the north wall. For the heating system, he combined the flue with hot water. The hot water system consisted of an open copper kettle or heater from the top of which a 5 inch copper pipe passed across the end of the house and then along the opposite side to a large copper reservoir. The return pipe was located on a level, just beneath the floor, entering the boiler near the bottom. The flue was carried to one side until it

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reached the walk and then ran under this walk to the other end of the house, where it was connected with the chimney.

This Sweetser greenhouse is an example of one of the early greenhouses in Massachusetts. It set the stage for the burgeoning of the industry in that state. Cambridgeport was located nearly adjacent to Watertown, where Henry Chase, the uncle of Arno and Frank, lived. Conceivably the boys visited their uncle who, eager to encourage their curiosity and enterprising spirit, may have introduced them to successor greenhouses in that area. He could have guided their questions and taken them to talk with greenhouse growers.

Meanwhile in Michigan, L. R. Taft, Professor of Horticulture and Landscape Gardening at Michigan Agricultural College, began testing various methods of building, glazing and ventilating greenhouses. He published his findings in various periodicals. From nearly every state in the Union he received letters asking advice on various points of greenhouse construction and heating. Traveling to various centers of greenhouse production in New York and Massachusetts, Taft consulted a variety of sources. His findings were copied in full by many horticultural and engineering periodicals. His reports were widely distributed and he received hundreds of responses from all parts of the country. These reports led to widespread interest. Eventually his findings were compiled in a book, Greenhouse Construction: A complete manual on the Building, Heating, Ventilating, and Arrangement of Greenhouses and the Construction of beds, frames, and plant pits. It was published in New York by Orange Judd Company in 1894. He had begun preparing the material in 1859. Conceivably, the Chase Brothers and/or their peers discovered some of these informative articles published in trade journals.

Here in Maine, under the provision of the Morrill Act approved by President Abraham Lincoln in 1862, the Maine College of Agriculture and Mechanic Arts was established. Instruction started September 21, 1868 with 12 students and 2 faculty members. In 1877, the Maine Agriculture and Forest Experiment Station was founded as a division of the university. By 1912, the Maine Cooperative Extension offered field educational programs. It seems unlikely, however, that the Chase Brothers relied on sources of information available at these institutions.

Although the Chase Brothers may have consulted with their peers and read published articles in trade journals, these brothers relied on their own common sense, precise observation of detail, and ingenuity. Their work ethic led them to be patient and to persevere. Their imagination helped them envision how their carnation business could prosper and grow.
By 1888, they had established several small greenhouses on the site of the Chase homestead. They sold their carnations from a horse drawn wagon painted Chase Brothers. That year, 1888, Arno Chase’s first wife Laura died unexpectedly at age 24. The following year, 1889, Frank Chase married Ida S. Osgood. In 1892, their daughter Helen Electra Chase was born. Still the Chase brothers, Arno and Frank, continued to work together as partners, but clearly each brother was charting a unique path. In 1893, after a fire destroyed much of the greenhouses, the brothers, Arno and Frank, separated and started afresh.
Moving to Cumberland Center, Arno Chase erected three small greenhouses, and then later a larger one. He then had 10,000 feet of glass.\(^{11}\) Now established at the center, located across the street from the Congregational Church, Arno Chase married April 10, 1895, Mabel Chase (1871-1917). Her mother Olive Hall lived with them. Arno and Mabel Chase’s child Laura was born in September 1896. Their second child, Norman Durward, was born in 1899 but died at three months and five days. Their third child, Kenneth Chase was born in 1902. That year, construction of his home at the center was completed. With his family growing, Arno Chase needed to grow his carnation business to support them.

Locally, he delivered carnations in a horse drawn wagon. We have a photograph dating to about 1910 with Arno Chase holding the reins and his daughter Laura seated beside him. Nationally, he advertised in the journal Horticulture. A typical weekly advertisement read as follows:

> Carnations: Large, strong healthy plants. Enchantress, Rose, Perfection, Harlowarden. $5.00 per hundred. Boston Market, Maid $4.00. Arno Chase, Cumberland Center, Maine\(^{12}\)

The price of the ad was one dollar per inch. Discounts on consecutive insertions were given as one month, four times, 5 percent discount; three months, 11 times, 10 percent discount; six months, 22 times, 20% discount; one year, fifty two times, 30% discount. One year’s subscription to Horticulture was one dollar. It was published in Boston by Horticulture Publishing Company. In response to orders from his ad, Arno Chase would pick the carnations, take them to the cellar of his workshop, separate them into groups of 25, wrap them carefully in tissue paper, and put them in boxes before delivering them to the four o’clock train at Cumberland Junction.

The four kinds of carnations advertised by Arno Chase are heirloom varieties, favored for their vivid colors and expansive blooms. Enchantress developed magnificent blooms and flowered both early and late. It is flesh pink in color and large in size.

The Rose Carnation became popular after John Singer Sargent painted “Carnation, Lily, Lily, Rose.” Sargent spent summer season in the artist’s colony in Broadway, Worcestershire. Inspired by an nocturnal boating trip along the Thames at Pangbourne in 1885, when he saw Chinese

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\(^{11}\) Cumberland and North Yarmouth Register, op. cit. page 32.

lanterns hanging from the trees, Sargent painted outside in a magical twilight time. To some viewers, this painting seemed to suggest a kind of Garden of Eden, with the garden dense with flowers and foliage. In this setting, Sargent depicted two little girls lighting the lanterns amid carnations, lilies, roses. Purportedly, the carnations were Rose carnations.

Perfection Carnations were white, a color cherished for its purity. Harlo Warden Carnations had large flowers on strong stems. During the growing season, this carnation could attain a height of three feet. Its color appeared as a very bright crimson. Florists claimed, “in habit and growth, it is unequaled by any other carnation.” In 1902, the Harlo Warden Carnation was awarded 94 of 100 points by the New York Florists Club. Arno Chase had learned how to choose superior and sustainable carnations which were popular both among the public and among growers.

Another photograph shows his greenhouses after the “Blizzard of the Century” in 1920. Apparently, little damage was done. The task was to remove the snow from the roofs before the roofs collapsed.

Perhaps the major challenge occurred when his carefully constructed large greenhouse burned to the ground. In her narrative, Barbara Garsoe relates the event.

One night in March 1933, a large crowd had gathered at the Congregational Church to hear Donald MacMillan lecture and show pictures of his trip to the Arctic. The fire alarm blew and the male members of the audience disappeared to help fight the fire at Arno Chase's. I remember that we were getting ready to go to the lecture when my father saw the sky all aglow. As he was a fireman, he left immediately. My mother, sisters and I decided to walk and see what was happening. It was during the Depression, and there were no street lights, as the town couldn't afford them. It was very dark, but seeing the glow in the sky kept us going. It looked as if the whole town were on fire. Luckily, the fire department kept it from spreading, and none of the nearby homes were lost. Arno later rebuilt and was in business for his carnations for ½ to 1 cent apiece.\textsuperscript{13}

At the time, Arno Chase was seventy years old.

From the perspective of a volunteer fireman who three years later became Cumberland’s Fire Chief, Kenneth Chase, Arno Chase’s son, offers another account.

The one fire that the old timers will remember was at the shop and greenhouse of Arno S. Chase. The shop sat where Phil Chase's garage is now and the greenhouse filled the space between his garage and the present fire station. On March 11, 1933, about seven o'clock

\textsuperscript{13} Garsoe, Barbara, op. cit.
in the evening, the shop was discovered in flames – we had always planned that in case of a bad fire at the center, we would pump from a large cistern at the greenhouse, and here was our first big fire right on top of the cistern. We connected the portable pump to the miniature hydrant in front of where the Merrill monument stands and went to work on the fire. Yarmouth, Falmouth, and I think Gray were called in. The water from the hydrant kept his house from burning, also the apartment house now owned by Philip Chase, although the curtains inside the windows were brown from the heat and the glass cracked, the paint was blistered, and the building badly charred. The telephone office (where Wayne Merrill now lives, 270 Main Street) caught fire several times, as well as other buildings including the store and Post Office, but were put out by neighboring firemen. The telephone operators remained on duty through it all. It was a close call for the Center Community that night. But for the miniature water system I think it would have gone.\footnote{Chase, Kenneth W., “Early Days of the Cumberland Fire Department” (2015), Cumberland Books, Book 11, page 7.}

Kenneth Chase’s narrative includes a picture of the remains of the greenhouse after the fire. Sparks from hot coals caused the fire. Undaunted, Arno Chase, now at age seventy, rebuilt the greenhouse, but continued to use coal fired furnaces. It was cheap heat. It was convenient. To feed the coal fired furnaces which were located in the basement of the garage, the attendant simply picked up the floor boards and dumped the coal down to the furnace. Recently, Philip Chase, Arno Chase’s grandson, recalled some features of the rebuilt greenhouse.\footnote{Interview with Philip Arno Chase, May 4, 2016.}

Regarding the heating system, Phil remembers two coal furnaces in the basement of the garage. In the early days, coal came to Cumberland by freight car, and each florist hauled his own coal from the railroad station. Eventually, modifications to the hot water heating system were made, and the temperature was regulated by an ingenious system designed by Kenneth Chase. He took some form of a thermostat and attached a coil with a metal pin. The pin was inserted down through the thermostat. Under the pin was a light switch. When the power was on, the pin was held in position. If power fell below an acceptable limit, the pin dropped and turned on a light switch which automatically triggered an alarm in the house. In this way, Arno Chase monitored the temperature in his greenhouses. This device, in effect, was the precursor to the modern thermostat.

As far as the watering system was concerned, water was pumped from the cistern to a tank on top of the garage. Due to gravity, water flowed down through tubes to the greenhouse. When
the hot water system was used, warm water circulated as long as there was a fire in the furnace. Arno Chase preferred hot water heat because it provided more even heat than steam heat.

Next to the greenhouse, the Gas House made carbide gas which was used for lighting throughout the house. Carbide lighting was used in rural areas which were not served by electricity. Its use began shortly after 1900 and continued past 1950. Calcium carbide pellets were placed in a container located in the Gas House with water piped to the container and allowed to drip on the pellets releasing acetylene. This gas was piped to light fixtures inside the house, where it was burned, creating a very bright flame. Carbide lighting was inexpensive but prone to gas leaks and explosions. As a service to the church, Arno Chase piped carbide gas across the street to the church where it lighted two big lanterns on either side of the organ as well as light fixtures between each of the side windows.

During the summer, in the greenhouse, recalls, Phil Chase, “it was hot as the Dickens!” A ventilation system was imperative. Windows on the sides of the greenhouse could be opened. Panels at the peak of the greenhouse could be opened and closed with a hand crank to allow circulation of the air. In addition, a slurry mixture made from clay and water could be thrown on the glass to diminish the sunlight.

In any greenhouse, diseases are a major concern. Disease management is critical because of limited air circulation. High humidity provides optimal condition for reproduction of many fungal and bacterial pathogens. When disease management is neglected, the pathogen population builds up and continues to increase as long as there is susceptible plant tissue available for infection. Infected plant tissue and infected soil serve as sources of pathogens that can later infect healthy plants. Arno Chase clearly understood that if greenhouse is not kept clean, disease will come when least expected.

To a seasoned greenhouse grower, there is a subtle difference between sanitation and sterilization. Sanitation refers to basic cleanliness and preventive practices. Its aim is to reduce the number of microbes to a safe level. Sterilization is often more labor intensive and requires procedures to eliminate all microbes by killing fungi and bacteria.

As Arno Chase knew, poor sanitation practices allow pathogens to spread to healthy plants or to survive from one cropping cycle to another. Unless properly treated, dead plant material can harbor overwintering fungal spores and bacterial cells for months and years. On the other hand,
proper sanitation practices help reduce dormant pathogenic tissue, fungal spores, and bacterial cells.

One key to sanitation is to start with prevention. It is essential to start with clean plants. Before being placed in the greenhouse, roots are inspected for healthy color and distribution. Unhealthy plants are rejected. The greenhouse itself is swept regularly; the benches are kept as dry as possible. The walls and ceiling are washed to prevent fungal spores from taking root.

How can levels of pathogens be reduced? The grower learns how to select appropriate planting materials. Diseased crop residues are destroyed and removed. Living plants that carry pathogens are eliminated. The grower can reduce the rate of spread by controlling the spacing of plants, controlling the amount of sunlight, and controlling the humidity and moisture levels. Pathogens can travel through wind/fan tunnels, stick to shoes or tools, or move with contaminated soil or water droplets. I too wipe my shoes before entering.

Equally important are sterilization practices. Although fungicides and pesticides were not then available, Lysol and Bleach were widely used. Lysol was first introduced in 1889 to help end a cholera epidemic in Germany. In 1918, during the Spanish flu pandemic, Lysol was an effective counter measure to the influenza virus. A small bottle, obtained for fifty cents, when added to water, made five gallons of disinfectant solution. Bleach was the work of eighteenth century scientists. In 1818, hydrogen peroxide was formulated. By 1930, bleach became commercially important.

What does bleach do? Bleach was shown to react with a microbe’s heat shock proteins. Bleach quickly reacts with microbial cells to irreversibly denature and destroy many pathogens. The range of micro-organisms effectively killed by bleach is extensive, making it an extremely versatile disinfectant.

To sterilize the greenhouse, florists used Lysol or bleach to wash walls and ceilings to prevent fungal spores from taking root. Chlorine bleach was used to clean the benches. It was necessary to disinfect pots, benches, floors, tools in order to remove spores and pathogenic inoculum. Ten percent Lysol served as a concentrated disinfectant. Ten percent bleach was corrosive, so tools had to be rinsed five or ten minutes later. The more one understood the pathogens, the easier it was to control them.
Each year, Arno Chase began with an empty greenhouse. All greenhouse dirt had to be changed. The process involved taking the soil out of the greenhouse. This procedure was necessary to sterilize the soil. No fungicides or pesticides were available. After removing the soil, he then would clean and sterilize all surfaces so pathogens would not carry over one season to the next. Routinely, he would disinfect benches, floors, and the greenhouse structure. Water did not accumulate in puddles. Diseased plants were disposed of properly. Before entering the greenhouse, hands were washed and protective clothing worn.

Regarding propagation, Arno Chase took a slip from an existing plant, put it in wet sand and allowed it to root itself. After a period of time, he would take the slips outside and these slips became the basis for new carnations. At the time, his outside plot was located on vacant land across the street from Prince Memorial Library. In the fall, the plants would be brought back to the main greenhouse.

After about 1940, at age 78, Arno Chase began to cut back, but only a little. He did take down the major part of the greenhouse but left fifty feet near the shop. Ever the innovator, he began to diversify by growing asters and snapdragons. Asters could be planted outdoors. He also tried growing tomatoes, as carnations and tomatoes grew well together. Arno Chase died in 1954 at age 92.
FRANK HENRY CHASE (1863-1933)

In 1893, after Arno Chase left to establish his greenhouses at Cumberland Center, Frank remained at the homestead and constructed a “new plant near the old one, moving the old greenhouses, and now having about 8000 ft. of glass.” In 1889, as noted, he married Ida S. Osgood (1866-1908) and they had a daughter named Helen Electra Chase, born in 1893. Parenthetically, the name “Helen” may have been in honor of Frank’s father Heber, the name being formed by substituting “l” for “b”. Frank himself had a middle name which honored his Uncle Henry, who now was the family patriarch. Unfortunately, Frank’s wife Ida died in 1908.

On December 26, 1912, Frank married the widow Geneva Blanchard Powell, whose husband Philip Powell had died in 1910. Geneva was a sister of Howard Blanchard, another carnation grower in Cumberland. During her previous marriage to Philip Stanley Powell, she gave birth to Helen Frances Powell, born in 1906 and Clark B. Powell born in 1909. In 1914, Frank and Geneva together gave birth to a son Dana Blanchard Chase. Their home thereafter included, Frank Chase, Geneva Chase, Helen E. Chase, Helen F. Powell, Clark B. Powell, and Dana Chase. Like his brother Arno, Frank needed to grow his carnation business to support his enlarged family.

After additions to the original buildings, Frank Chase was in business until 1915, when his home and business on Tuttle Road were destroyed by fire. Apparently, his son Dana, then a small boy about one or two, lighted a fire in the hay to keep the horse warm. When Frank tried to pitch the burning bunch of hay out of the barn, it flared up and caught the haymow on fire, burning both the barn and the house. Undaunted, Frank Chase then moved his family to 327 Main Street and built a new greenhouse.

Since 1899, Frank Chase had been listed in the Annual Register of Maine. In addition, he was listed in the Directory of Florists, Nurserymen and Seedmen. He also was listed in the Yearbook of the Society of American Florists and Ornamental Horticulture. In other words, he meticulously maintained contacts with both regional and national organizations of his profession. As a result, he was well known among carnation growers and thus able to develop his own connections, independently from his brother Arno. These listings continued up until 1933, when he died.

16 Cumberland and North Yarmouth Register, op. cit., page 32.
Following his death, his widow Geneva Chase assumed responsibility for his carnation business. Starting with the 1933-1934, her name replaced his name in the Annual Register of Maine as well as most of the listings for regional and national organizations. As a Blanchard, Geneva was raised in a family committed to growing carnations, and so she was familiar with many aspects concerned with the nurturing and marketing of carnations. Of course, as a wife of Frank Chase, she added to her knowledge. Indeed, in many ways, she was well qualified to take over management of Frank Chase’s greenhouse. She continued in this capacity until her death in 1964.


Geneva Chase died in 1964, and soon thereafter, Harold realized he needed to spend more time on managing the greenhouse. In professional journals, he began listing it as Chase’s Greenhouse. He also began to diversify by adding a variety of plants and flowers which would appeal to local customers. Sometime in the late 1970s, the larger greenhouse was dismantled, and Harold built a smaller one, which served the local community.

After his wife Helen died in 1981, Harold continued with the smaller greenhouse, but somehow he seemed less committed. He was 76 years old, and his daughter Betty did not develop a keen interest in the florist business. She married Oland Knight in 1956 and subsequently they had two daughters and one son. She died in 2000.

After Harold’s death in 1992, the greenhouse changed owners several times, but no one could seem to make it sustainable. By this time, its production was seasonal and local. Finally, in 2010, the Atlantic Federal Credit Union purchased the land, dismantled the greenhouse and built a branch office on that property.
Barbara Garsoe continues her narrative:

The third greenhouse, Jenkins Greenhouse, was on Blanchard Road near the Sweetser’s Apple Barrel. Interesting how the Jenkins came to live in Cumberland. Hollis True lived across the street and served in Co. E 17th Maine Volunteers (in the Civil War). He was wounded in a battle near Petersburg and ended in a hospital in Washington. Harrison Jenkins had joined the war from Massachusetts and, when his company fell ill with dysentery, he became an aide at the hospital and took care of Hollis True. After the war, Harrison moved to Cumberland where he lived the rest of his life across the street from his friend, Hollis True.

This friendship was deeply rooted, partly because Harrison Jenkins sat by the bedside of Hollis True and dripped water into Hollis’ leg wound. This action helped saved his leg and prevented amputation.

Who was Hollis True (1839-1916)? According to the 1850 U. S. Census he was then living in Pownal with his family, his father William, his mother Zilpha and eight siblings, four brothers and four sisters. Hollis was the sixth and his sister Frances the seventh sibling. By 1860, at age 21, Hollis was still living in Pownal but with the John Merrill family. He was listed as farm laborer, and his father was listed as farmer.

On August 18, 1862, Hollis enlisted as a private in Company E of the Maine 17th Infantry Regiment. After enduring many battles, On June 15th, 1864, his regiment crossed the James River and camped about three miles from Petersburg.

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18 Garsoe, Barbara, op. cit.

19 The Richmond-Petersburg Campaign was a series of battles around Petersburg, VA., and was fought from June 9, 1864 to March 25, 1865. The Campaign, under the command of Lt. General Ulysses S. Grant, consisted of nine months of trench warfare. Petersburg was crucial to the supply of Confederate General Robert E. Lee’s army.
On the morning of the 16th, the enemy began shelling. Hollis True was hit by a Minie ball that broke his thigh. He lay wounded on the battlefield, guns firing all around him. … Hollis True was carried to safety … He was then taken to a hospital where an over abundance of flies made him very uncomfortable. His leg was swelling badly and he felt that the doctor didn’t “know any better than a sheep,” but the nurses were very kind. On the 26th True was sent to the hospital in Washington. He arrived on the 28th and his leg was dressed. He was much surprised by a visit from his mother and from a Dr. True, a relative stationed there. His leg had swollen as large as his body...  

The wound was serious enough that the doctors considered amputating it. However, Dr. True, transferred Hollis to his ward, where water was continually dripped on Hollis True’s leg to keep it cool.

While Hollis True was at the hospital, Harrison Jenkins served as an orderly. Jenkins had joined the war from Massachusetts, but when his company fell ill with dysentery, he became an aide at the hospital. Working as an aide in that hospital, Harrison Jenkins sat by Hollis’ bedside and dripped water into the wound, an action that helped prevent amputation. On May 26, 1865, Hollis True was discharged with the rank of corporal. He returned to Maine. After the war, Harrison Jenkins moved to Cumberland and eventually lived across the street from his friend Hollis True.

On November 4, 1867, Hollis True married Elvira A. Tomlinson (1843-1915). She was born on Prince Edward Island, Canada. They were married in Portland. It is unclear how they met. Previously, Elvira had been married to Alonzo Quimby of Portland. Probably they were married shortly before 1860. According to the 1860 Census, they lived in the household of his parents, Jacob Quimby, 56 and Charlotte Quimby, 62. At the time, Alonzo, was 20 and Elivira was 17.

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20 The Minie Ball was a conical bullet with three exterior grease-filled grooves and a conical hollow at its base. The bullet was designed by Claude-Etienne Minie, inventor of the Minie rifle. The Minie Ball came into prominence during the Crimean War and the American Civil War. Its intended purpose was to expand under pressure, close the barrel, and increase muzzle velocity. Wounds inflicted by the conical Minie ball were different from those caused by round balls from smooth bore muskets, since the conical ball had a higher muzzle velocity and greater weight. Round balls tended to remain lodged in the flesh and often took a winding path through the body. The Minie ball tended to cut a straight path and usually went all the way through the injured part; the ball seldom remained lodged in the body. If a Minie ball struck a bone, it usually caused the bone to shatter. The damage to bones and resulting compound fractures were usually severe enough to necessitate amputation.

21 Cumberland Maine in Four Centuries, compiled and edited by Phyllis Sweetser (Portland, Maine: Casco Bay Printing), page 134.
During the early 1860s, they had three children, Harriet, 1860, Charles, 1862, and Alberta, 1864. In April 1865, Elvira and Alonzo Quimby divorced. Hollis True mustered out of service on May 26, 1865 with the rank of corporal. In 1867, Hollis True and Elvira Tomlinson married in Portland. According to the 1870 Census, Hollis and Elvira were living in Portland with her children, now named Harriet True, Charles True, and Alberta True.

According to the 1880 census, Hollis True is listed as a farmer living in Cumberland. His household includes Hollis 41, Elvira 35, Edward 4 and William 2. The 1900 census lists a household of Hollis and his wife Elvira and two children, Edward True age 24, and William True, age 22, as well as Cora True, 30, William’s wife. Cora and William married in 1900. They lived a while with his parents before moving to Portland and teaching in the school system.

Who then was Harrison Jenkins (1840-1916)? He was born in Hebron, Oxford County, Maine. In 1860, according to the U. S. Census, he was living with the Keene family in Hebron. According to Barbara Garsoe's account which relies on the account presented in Phyllis Sweetser's Cumberland in Four Centuries, on July 22, 1862, Harrison Jenkins, enlisted in Company H of the Massachusetts 1st Heavy Artillery Regiment. This may not have been the case. William Harrison Jenkins enlisted in Company H of MA 1st Heavy Artillery Regiment. Though he shared same birthdate and deathdate, he was born in a different place and died in a different place. Quite probably Harrison Jenkins enlisted in Maine. Be that as it may, eventually, he served as an orderly in a hospital, where Hollis True had been taken. On July 13, 1865, he was discharged from the army. Several years after being discharged, he found his way to Cumberland, where he visited his friend Hollis True.

This time it was Hollis True who took personal interest in his friend Harrison Jenkins. As it happens, Hollis' younger sister Frances was still unmarried, and so Hollis introduced his sister to Harrison. In 1869, Harrison Jenkins married Frances True (1842-1931). According to the 1870 census, Harrison's household consisted of himself, his wife Frances and their new born son Charles Harrison Jenkins. At the time, they were living in Lewiston, Ward 2, and Harrison was working in a shoe store.

Harrison having grown up in Hebron, and Frances having grown up in Pownal, they found life in the city less appealing than rural life. No doubt Harrison expressed this misgiving to his friend Hollis, and soon Harrison, Frances and their young son moved to Cumberland, living on Blanchard Road in a house across the street from Hollis. According to the 1880 census, they
were living in Cumberland and their son Charles was ten years old. By 1900, he had established his greenhouses and had around 6,000 feet of glass.22 The greenhouse was commercially viable and he specialized in growing carnations for regional markets. He was 30 years old.

How did Charles Jenkins learn to grow carnations in a greenhouse? By 1893, Arno Chase had moved to Cumberland Center and started erecting his greenhouses and establishing a regional market for his carnations. By that time, Charles Jenkins was about 23 years old. The distance between the Chase greenhouse and Jenkins home was about half a mile. When Arno Chase started erecting his greenhouses so close to his home, Jenkins may have become a frequent visitor, asking questions, and perhaps helping with the construction. Arno Chase presumably welcomed the young man's interest and enthusiasm, and in effect Chase became Jenkins' mentor.

From Arno Chase, Jenkins, conceivably, learned greenhouse construction, propagation, and marketing. In the Directory of florists, nurserymen and seedmen of the United States and Canada, the 1899 issue lists Arno Chase and Frank Chase as the only florists in Cumberland. The Maine Register, in its 1899-1900 issue lists Arno Chase and Frank Chase as florists, and Charles H. Jenkins is listed as a member of the school committee. By the 1902-1903 issue, C. H. Jenkins joins the Chase Brothers as a florist in Cumberland. No further reference is made to Jenkins membership on the School committee. His attention now is focused on growing his business.

In addition to hands-on experience, Charles Jenkins may have made contact with some suppliers which advertised in the American Florists' Directory of 1899 and earlier. Hutchings & Company in New York promoted its company as a greenhouse builder specializing in Heating and Ventilation Apparatus. They advertised Spring Pumps and Nozzles as “the acme” of mechanical perfection” and claimed they received “highest awards at the World's Fair [1893] and many improvements made since then.”

Charles Jenkins may also have consulted other greenhouse enterprises in the area. The Leighton Brothers were establishing greenhouses in Cumberland and North Yarmouth. Gardiner Leighton opened a nursery at Walnut Hill. Also, E. D. Long and Albert F. Prince erected greenhouses at Walnut Hill, North Yarmouth. However, Charles Jenkins wanted to concentrate on growing carnations for regional markets.

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22 Cumberland and North Yarmouth Register, op. cit., page 32.
Gradually, Charles Jenkins gained momentum and established a stable place in the carnation market. On February 22, 1913, at age 43, Charles Jenkins (1870-1948) married Grace F. Merrill (1878-1969). Her parents were Louville Howard Merrill (1839-1918) and Mary Ellen Merrill (1842-1930). Both of her parents were from long established Cumberland families, the Merrill family of Winn Road, and the Wyman family of Tuttle Road. Her father was a barber in Cumberland. Grace, according to her marriage certificate, was a schoolteacher. She taught school at the Cumberland Schoolhouse No. 7, located across the road from her grandparents’ home. Charles and Grace Jenkins did not have children, but were devoted to their respective occupations and the community.

Charles Jenkins felt deep satisfaction with his chosen occupation and marriage. Surviving the challenges of the Great Depression of the 1930s, he “enlarged and improved his buildings” in 1938, and “dealt in wholesale only until his retirement in 1945.” At his retirement, he was 75 years old. Charles Jenkins died three years later in 1948.

Upon Jenkins’ retirement in 1945, Maurice Small (1914-1982) bought the business. Having grown up in North Yarmouth, Maurice Small was familiar with the Leighton Brothers greenhouses, and served as their apprentice learning the trade. Maurice, as his son George recalled, “loved plants.” He was fascinated with the whole process of growing, nurturing, and propagating plants. He deepened his knowledge working as an apprentice in the Leighton Greenhouses. When Maurice learned Charles Jenkins would retire, he could not resist purchasing the Jenkins Greenhouses.

In 1945, the Jenkins Greenhouses consisted of two greenhouses, each 60 x 200 feet with a small connector 20 x 40 feet. At the time, the property had a dozen or more wooden type wells, ten feet wide, eight feet deep and 12 feet long. The tops of the wells were covered with a wooden plank. An Artesian well had been drilled, but still there was not enough water to service the greenhouses. Eventually, the problem was solved when it became possible to hook into town water.

When Maurice first acquired the greenhouses, five coal furnaces constituted the heating system which used gravity fed hot water. That system required a night man. Eventually, Maurice saw the advantage of steam heat, and installed a portable steam boiler. In the process, Maurice converted

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23 Garsoe, Barbara, op. cit.

24 Interview with George Small, May 16, 2016.
to auto feed, with a big boiler, water tube, and four furnaces kept stoker fed. This system fed coal into the furnace of a steam boiler.

Heating during the winter months was critical. Even when he converted to oil, and thus eliminated the need for a night watchman, Maurice Small did not trust the gauge. At night, he would sit up, half-way asleep, and every hour he would get up to check the greenhouse temperature. As George Small recalls, there was not a big margin within which to maneuver, “if it froze, the entire income was lost.”

George Small remembers how he and his brother became involved in keeping the greenhouses operational. Before the furnaces were converted to oil, one of his tasks was wheeling in the coal. In a typical year, they would use 250 tons of coal. Another task was to take the diseased plants to the dump. Sanitation procedures involved covering the benches (five feet wide) with heavy plastic, placing a pipe on the top of each bench and steaming the dirt for several hours. Every year, the plants would be replaced. Before replacing the plants, it was necessary to “wheel out the old soil and wheel in the new.” In addition, every summer, all of the benches were replaced. “It was a labor intensive business to be in,” recalls George Small.

Primarily, the plants were carnations and snap dragons, but to meet the seasonal demand, he also grew some geraniums. Snap dragons and carnations were shipped to New York and Washington D. C. During the week, Maurice Small would deliver shipments to the Yarmouth train station, and on Sundays, to the Railway Express in Portland.

By 1964, after nearly twenty years of ownership, Maurice Small decided to sell the greenhouses. Part of the reason was he realized he could not sell his carnations competitively. The buyer, Charles Haynes, ran the greenhouses for a while and then moved the houses to Freeport.

Upon retirement, Maurice Small built a small greenhouse on Tuttle Road, near where the Chase Brothers first started their business. This was a seasonal enterprise in which he grew mostly seedlings, but also some snapdragons and geraniums. In the autumn, he raised tomato plants. His wife, Marion created centerpieces for funerals and floral arrangements for weddings. In the winters, they spent vacations in Florida. Maurice Small died in 1982.

After his death, Marion Small and her grandson Allen ran the greenhouse for 2 years. She closed the greenhouse in 1984, since her grandson’s help was available only after school hours.

25 Interview with George Small, May 16, 2016.
Upon graduation, he was no longer available. Marion Small continued making floral arrangements until her death in 2000.
Howard C. Blanchard (1878-1949)

The fourth grower of Cumberland carnations was the Blanchard family. According to the Cumberland and North Yarmouth Register, “Howard, C. Blanchard, who built his houses last year [1903], has over 4,000 ft. of glass. In the Annual Register of Maine, F.S. Blanchard & Son are listed from 1905-1906 through 1909-1910. After that, Howard C. Blanchard is listed as proprietor of the greenhouses.

Fenrick Sibley Blanchard (1852-1924) married Elizabeth Julia Blanchard in 1877. Howard was their first born. Altogether Fenrick and Elizabeth Blanchard had two sons and three daughters: Howard (1878), Geneva (1880), Carrie (1881), Clifford (1885) and Bernice (1892). Fenrick’s father, William, died in 1892 and his mother, Harriet, died in 1905.

Howard C. Blanchard married Anna Fox Blanchard (1882-1947) in 1904, and they had three daughters: Estelle (1914-2003), Barbara (1919-2013), and Margelia (1921-2016). His wife Anna died in 1947. Howard died in 1949. This skeleton sketch of dates is useful when plotting the progress of Howard’s greenhouse enterprise.

As a young man, Howard is first listed in the Maine Register from 1895 through 1918 as a produce and poultry producer. In the volume for 1905-1906, F. S. Blanchard and Son are listed as florists. Since about 1903, the greenhouse was registered, and so by 1905, the carnation production must have been commercially active. Meanwhile in 1904, Howard married Anna. By 1910-1911 volume of the Maine Register, Howard C. Blanchard is listed as florist. His father Fenrick must have transferred primary responsibility to his son Howard. As yet, however, carnation income was still supplemented by “poultry and eggs.”

Having assumed most of the responsibility for the carnation enterprise, Howard must have given thought to how he could grow the business and support a family. “Four thousand feet of glass” limited the number of carnations that he could grow. His nearby neighbor, Charles Jenkins, had six thousand feet, Arno Chase had 10,000 feet and Arno’s brother Frank Chase had about 8000 feet. If Howard were to make carnation growing a sustainable livelihood, he needed to expand. With his present capacity of 4000 feet, it would be difficult to generate enough income to expand his operation. He needed to look for outside sources of support.

In 1909, Howard’s father, Fenrick, conveyed a parcel of land approximately a half acre in size to Howard. Presumably this land would be used to expand the greenhouse. About six months later,
December 6, 1909, Howard uses this land as collateral for a loan of one thousand dollars from the Cumberland Loan and Building Association. The rate of interest was six percent. Howard’s wife, Anna, was a co-signer of the loan.

Two years later, in 1911, Howard for the sum of $850.00 purchased land and house from his widowed sister Geneva Powell. With this purchase, his tangible assets began to accumulate. By 1914, his first daughter, Estelle, is born. The need to expand his business is underscored. According to Barbara Garsoe’s narrative, “two small greenhouses were built in 1914 by Howard Blanchard as the expansion of the operations of Sunnyside Farm at 70 Blanchard Road.”

In July of 1916, Howard takes another loan of one thousand dollars. By 1921, the first loan/mortgage dated December 6, 1909 was paid in full. That year, 1921, marks the first of two major expansions to his greenhouse. According to Barbara Garsoe’s narrative, “Later structures, 30,000 square feet were built in two stages in 1921 and 1927 by Howard Blanchard.” In 1919, his second daughter, Barbara, and then in 1921, his third daughter, Margelia, was born. The motivation to expand the business intensified.

In 1924, Fenrick Blanchard, Howard’s father and mentor, died. Under the terms of the Will, Howard received a house lot and greenhouse. That bequest of the greenhouse was conditional. To receive full title, all debts, all claims, and all notes must be paid. Moreover, if the greenhouse is “transferred to any person outside of said family then said lot of land shall revert to my legatee or legatees.” Clearly, the greenhouse is a family project on family land. If the greenhouse is conveyed to another person, the land on which it rests reverts to the family.

On October 26, 1927, the mortgage dated June 1916 was paid in full. The year 1927 also marked the second expansion of the greenhouse. Now Howard had a facility of 30,000 square feet of glass. It was the second largest greenhouse in the state of Maine. The future seemed very promising, until the reality of the Great Depression impacted the sale of carnations.

Now that Howard Blanchard had a large greenhouse, he did benefit substantially from economy scale. Production increased significantly, and the cost of production remained stable or even

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26 Garsoe, Barbara, op. cit.
27 Ibid.
28 Interview with Peter Garsoe, May 18, 2016.
decreased due to the help of family members. At the same time, demand sharply decreased, and as the demand decreased, prices plummeted.

During the depths of the Great Depression, Howard’s grandson Peter Garsoe recalls his mother Barbara saying, “One winter we ate turnips.” Peter adds, “that was not a complaint, that was simply doing what you have to do.” About that time, when undulant fever was raging, Howard’s sister Geneva Chase moved back to the family homestead. Undulant fever is a generalized infection marked by fluctuating fever, malaise, and headache, and is transmitted to humans from domestic animals such as pigs, goats and cattle, especially through infected milk. The symptoms included loss of weight and increased irritability. The family homestead sheltered three generations of the Blanchard family. Peter recalls his mother saying, one day in the mid-1930s, presumably after undulant fever had subsided, Geneva announced she was “going home,” back to Main Street and the Chase Greenhouse. Though continuing to work in the greenhouse after her husband Frank Chase died in 1933, Geneva “made a living decorating ladies’ hats.”

She also benefitted from the help of daughter’s husband, Harold Bragg.

The Great Depression made it very challenging to keep current on repayment of mortgages. Around 1928, while keeping his enlarged greenhouse running, Howard did default on the mortgage for his house and the greenhouse. His daughter Barbara, according to her son Peter, overheard Howard’s telephone conversation with the loan company, “You can take the damn place.” He simply could not come up with enough money to make the monthly payments. However, he did keep up payments on the mortgage to his mother’s house, as “he did not want to see his mother evicted.”

In 1933, Howard took a loan of $1500 and used as collateral the land conveyed to him by his father in 1909. As the depression grew deeper and deeper, payments became harder and harder to make. Three years later in 1936, his mother Elizabeth Blanchard died. Under the terms of her Will, she bequeathed to Howard $\frac{1}{4}$ acre of land, which upon being added to the half-acre from his father would increase to $\frac{3}{4}$ acre. The remainder of the farm, she bequeathed to her remaining children, Geneva, Carrie, Clifford, and Bernice to “share and share alike.” Should any of them wish to sell, then Howard would be given first opportunity to purchase. Reaffirming her

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29 Ibid.

30 Interview with Peter Garsoe, ibid.

31 Ibid.
husband’s commitment to family unity, she underscored her preference, ”my wish being that said
farm shall remain in the family as long as possible.” That wish was not forgotten.

Still struggling in the Great Depression, Howard on August 1, 1938 took a two thousand dollar
loan, but three days later paid in full the $1500 loan granted October 18, 1933. That August
1938 loan was repaid in full on February 7, 1945. The enlarged greenhouse had paid for itself.

The risks taken resulted in positive gains. Had Howard failed to enlarge the greenhouse, had he
not been willing to take some carefully calculated risks, had he not benefitted from his father’s
encouragement, had he not been able to think like a businessman as well as a florist, these gains
no doubt wound not have occurred. Howard’s chapter was nearing completion. His faithful and
supportive wife Elizabeth died in 1947, and Howard himself, at age 71, died in 1949. Would it
be possible to continue his legacy within the family?
In 1949, William Garsoe, husband of Barbara Blanchard, Howard’s middle daughter, purchased Sunnyside Greenhouses. As expressed in Barbara Garsoe’s narrative, “In 1949 the business was purchased by Mr. Blanchard’s son-in-law, William J. Garsoe. At the time, local markets were expanding and by 1960 the entire crop was distributed in Maine and New Hampshire.”32

Bill and Barbara were married in 1942, and together they had three children, Peter, Susan, and Kathy. After serving in World War II and returning to the Blanchard farm, Bill Garsoe had taken an active interest in Howard’s carnation business. Serving as an apprentice, and applying his own business experience, Garsoe saw several opportunities to develop the greenhouse and continue to grow carnations for the commercial markets.

What interested Bill Garsoe in the business of growing carnations for the northeast markets? His son, Peter, says, “At first, he was interested in pollinating different flowers. He went around with a paintbrush and used its tip to take pollen out of one flower and put it into another. He would take cuttings and propagate them in perlite, and put them next to the boiler room.”33

Up until the early part of the twentieth century, the quality of seedlings often depended on chance. The key was to select strong seedlings initially, and then propagate by means of cuttings. By mid twentieth century, greenhouse growers, like Bill Garsoe, wanted to exercise more control on the fertilization process. With the curiosity of a scientist, he began to experiment.

Carnations are bisexual and so each flower possesses both female and male organs, namely an ovary with styles, and anthers with fertilizing pollen. If the petals of a bloom are carefully removed, then springing from the apex of the ovary or seed capsule, the pollen bearing anthers appear. Drawing on recently discovered scientific techniques, Bill Garsoe attempted to effect fertilization by hand.

Before proceeding with the process, the grower selects the plants. Size is important. Small plants are not worth investing the time. Petals should be large, firm, flat, and smooth on the edge. The calyx should have a long bud as opposed to a short bud. Short buds often burst and that tendency is almost always transmitted to descendants. The ideal length of calyx is about three times its diameter. After selecting the plants, the grower carefully considers whether the pistils

32 Garsoe, Barbara, op. cit.
33 Interview with Peter Garsoe, May 18, 2016.
are sufficiently advanced to receive the pollen and also whether the pollen is in a condition to affect fertilization.\textsuperscript{34}

The grower watches for maturity of the flower, particularly, the development of the anthers. When ripe, the anther cases burst and set free the pollen, which appears as a fine dust. That dust attaches itself to anything by which it is touched, such as the tip of William Garsoe’s paintbrush. That tip is used to convey the pollen from the anthers to the styles of the flower selected to bear seed. When ready to receive pollen, the whole surface of the style is erupted, rough in appearance, and covered with a clammy exudation that catches and retains any pollen that falls upon its surface.\textsuperscript{35}

When is the pollen ready for use? Once the stamens open, the sooner pollen cells are used the better. Pollen cells should be kept absolutely dry. Clearly, it is no use to try and do it during damp, foggy weather or when the pollen that comes from stamens onto the brush is “cloggy” or “lumpy”. The pollen is best when it is a fine, impalpable powder.\textsuperscript{36} The brighter and hotter the weather, the more certain will be fertilization of a flower. Midday is best.

How does one know if fertilization is successful? If fertilization is successful, by the second morning, the flower has shut up or collapsed, and the flower can be labeled cross is “sure.”\textsuperscript{37} About 6–7 weeks after fertilization, seed will be ready to gather. Each pod is taken from the plant and placed in a small envelope and marked with names of the parents. Envelopes are kept in a dry, airy place until sometime later in the autumn when perfectly dry, then the envelopes are opened.

When influencing the process of fertilization, Bill Garsoe fostered plants, strong and stable. He minimized chance factors and added to factors he could control. Bill Garsoe began to realize to raise a really good new variety from seed of your own fertilization was a delight not easily forgotten.

To assist in the growing process, Garsoe needed a team of helpers. His wife Barbara and her sister Margelia became known as the “carnation strippers.”


\textsuperscript{35} Ibid. page 89.

\textsuperscript{36} Brotherston, op. cit. page 89.

\textsuperscript{37} Ibid., page 89–90.
We graded the carnations, stripped off the lower foliage and packed them in bunches of 25. Carnations with split calyces were thrown onto the floor. When the weather was not right, many ended on the floor.\textsuperscript{38}

When is calyx splitting most likely to occur? Unusually high day temperatures cause carnation calyces to split. This is particularly true during late winter and spring. Generally, splitting is most apt to occur 1-12 days after calyx opened. The most sensitive time for splitting was 2-6 days following calyx opening.\textsuperscript{39} A general rule of thumb is this: the higher the temperature in relation to previous temperature, the greater the amount of splitting. On the other hand, when temperatures remain a steady 55-60 degrees from calyx opening bud stage to flowering, calyx splitting is significantly reduced.

What other factors cause splitting of the calyx? Heredity is a major factor. That is why Garsoe wanted to foster strong, healthy plants, and to encourage them through grower fertilization. Another fact is occasional low night temperatures. However, high temperature alone is not sufficient to cause calyx splitting. The calyx must be full before it splits. Once full, unusually warm temperatures may supply needed impetus to split the calyx.\textsuperscript{40}

What can be done to lessen splitting? Adjusting ventilation can help. Begin to ventilate early with the aim of keeping the temperature lower. Be alert to unusually warm days. Attempt to equalize day to day temperatures.\textsuperscript{41}

In her narrative, Barbara Garsoe enumerates other ways in which the plant growth was supported.

As the plants grew, support had to be put in place. Wires were strung the length of the bench and strings were tied crosswise, making a small square for the plant to grow through. Being sure the plant went through the square we called “poking up.” – a great job for kids. Also, each plant had to be disbudded in order to keep one strong flower. A person hung a burlap bag on his shoulder, put a plank across the aisle, on which to stand, and inched their way along, disbudding all of the way.\textsuperscript{42}

\textsuperscript{38} Garsoe, Barbara, op. cit.

\textsuperscript{39} Colorado Flower Growers Association, Bulletin 43, May 1953.

\textsuperscript{40} Ibid.

\textsuperscript{41} Ibid.

\textsuperscript{42} Garsoe, Barbara, op. cit.
Early summer is the appropriate time to remove weaker buds, when produced too abundantly on vigorous plants. Disbudding is best performed when the buds are still small. To disbud, grasp each bud to be removed between the finger and the thumb, and then give a quick upward jerk, so it comes easily out of its socket without in any way damaging those left.43 Three buds on each stem is usually the greatest number permitted. Some growers leave only one bud on each plant, but that frequently tends to coarseness and to burst calyxes.

Another aspect which required supplementary helpers was the process of propagation.

Cuttings from established plants were taken and placed in outside beds. Then the soil in the greenhouses was all wheeled out and new soil brought in and placed in the beds. The plants could then be brought inside and grown there. Later on, a sterilization process changed all that. After the plants were removed, tarps were laid over the tops of the beds inside, then the dirt was fumigated and steamed. That would kill anything that was not favorable for the growing of the plants. Even though this did require quite a lot of hard work, it was still much easier and less expensive than the former way of doing things.44

Among the recruited workers for this process were Barbara’s son Peter and his cousin David. At the time, they were about ten years old. Peter vividly remembers wheeling the dirt out, then up a plank into the dump truck. The dirt then was taken to the field across the road and dumped by the pond. New dirt would be scooped up onto the vehicle, and then wheeled back into the greenhouse. In the summertime, as many as twenty people worked in the greenhouse. As Peter recalls, his father “hired 20 plus Peter age 6.”

To sterilize the soil, they used lime, super phosphate, and peanut shells instead of peat moss which was more expensive. This material was tilled together. A blanket placed over benches and pipes on the edges. Using a tank from a kerosene fired boiler, they would steam at 160 degrees to sterilize the soil. At that temperature, weeds and pathogens would be killed, but not the biologics.

Every summer, Peter recalls, “David and I painted the roof. We devised a system.” The staging was held by ropes. The chicken ladder would be set in place. The boys would climb up the bars and slide down the other side. The roof had wooden bars made out of cypress. Those bars had to be scraped, the clippings falling into a sack. Every couple of years, they also took out all the glass, scraped it down, and re-laid the glass into fresh putty.

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43 Brotherston, op. cit., page 22.
44 Garsoe, Barbara, op. cit.
Particularly vivid in Peter’s memory is the work ethic he learned from his father Bill Garsoe. The schedule required work from seven in the morning to five in the afternoon with one hour out for lunch, and on Saturdays, the hours were seven to twelve. “I learned how to work,” recalls Peter. “We started not when we came in the door, not when we took off our coats, but when we were standing in the greenhouse, tool in hand.” The time it took to get there did not count. “Work started when we were out there with the hose.” Peter adds, “I was fast, worked hard, no excuses. If not dead, I was told, be there. We were done when we reached the front door.”

One incident made an indelible impression on Peter. He confessed he was spanked only once. That occurred when he was nine years old. His father asked him, “Did you water the cattle?” Peter replied, “Yes.” Then he quickly ran out and watered the cows. His father stood in the background and watched him. When Peter was done, his father told him to go to the woods, get a switch, and come into the house. Peter braced himself, half aware of what was coming. His father whipped him across his buttocks. Later, his father asked Peter, “Do you know why I whipped you?” Peter replied, “because I forgot to water the cows.” “No,” his father said, “Because you lied.”

The message was clear, adds Peter, “Your word means a hell of a lot. Don’t lie. Punishment does not matter. Your word does matter. Do not lie.”

Among long term employees working at Sunnyside Greenhouses was Don Drew. He worked there from 1954 through 1960. While he attended high school, 1954-1958, he worked part time after school. Upon graduating, he worked another two years full time.

How were the greenhouses structured? As Don Drew remembers, there were three greenhouses, two large ones, 50 x 375 and 60 x 375 feet and a small one 30 x 50 feet, attached to the garage, where cutting and sorting was done. Also, the garage housed a water pump. The pond across Blanchard Road was the source of the water supply. From there, water was piped into a 3000 gallon tank located in the cutting room. When the greenhouse was in operation, one person watered nine hours a day.

In 1954, a new oil fed furnace was installed. During the winter, 4700 gallons of oil was delivered every 14 days. For a time, the two coal furnaces and coal storage bin remained. Coal had been augured fed into the furnaces. However, the Garsoes decided oil would be an advantage. It was

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convenient since it was delivered, and at the time, oil was relatively inexpensive. It also was less labor intensive. Prior to this conversion of coal to oil, a night man was necessary to monitor the temperature. After the conversion, Barbara Garsoe recalled, “we had all kinds of horns and whistles if the heat dropped, signifying that there was a problem heat wise – a lovely sound to hear in the middle of the night.”

As a “grower”, what did Don Drew do? In the winter, “we did everything from planting, stringing, wiring, watering, picking, sorting, and stripping.” During the spring, March, April and May, this was the time of heaviest picking – about 6000 carnations every other day. Wholesale, these carnations sold for 12 cents apiece. During the summer, June, July, August, and September, when labor needs were most demanding, the greenhouse had no income.

In June, “we started tearing out old plants and replacing the soil.” In the summer, he recalls, we had extra help from Pineland to do the digging.” Every year, the greenhouse had to be torn out and soil removed. Beginning another season, workers added “peat moss, potash, fertilizer, and then rototilled it.” Then the soil was “covered with a blanket and steamed for one hour in order to sterilize it before replanting.”

Don Drew notes most commercial carnation growers “don’t grow from seed, but have to grow from cuttings.” “Every year about 40,000 cuttings were planted in flats, where they remained for 3-4 months and then reset into the greenhouse.” The aim was to strive for color and size of the bloom.

As far as varieties are concerned, the Garsoes favored the Sims variety, with its vibrant hues of white, pink, and red. As opposed to “spray” carnations, “Sim” meant the carnation has only one flower per stem. Usually, these carnations grew 18–26 inches tall, and their single flowers of 2–3 inches had a spicy clove-like fragrance. To nurture their single bloom, they needed to be pruned regularly, and their stems “poking through” a support system. In addition, they grew a limited variety of Sydney Littlefield carnations, available in three varieties. Although huge and fragrant, these varieties were not so productive. Both the Sims and Sidney Littlefield varieties were among the most popular large carnations at that time.

46 Garsoe, Barbara, op. cit.

47 Interview with Don Drew, June 8, 2016.

48 Located in Pownal, about 15 miles distant from Cumberland, Pineland in the late 1950s and early 1960s had 1700 residents, hundreds of staff and some 50 buildings. Its campus served as a center for treatment of persons with mental retardation as well as a place for orphans and unruly youth, and those with developmental disabilities.
When using insecticide, says Don Drew, “we closed the vents and wore gas masks.” This was the “only way to kill red spiders” without spraying. All this involved “a lot of work, lugging and wheel-barrowing.” However, he adds, “we did it because we loved doing it.”

An important aspect was marketing. During the growing season, Barbara Garsoe made deliveries. In Portland, Dodge Florists would take 100 carnations, Minot and Vose Florists took 200 at a time and Harmon’s Florists took 150. The balance went to A. M. Pierson, who distributed to small greenhouses throughout Maine. Noticeably, fewer and fewer growers attended the annual meetings of the New England Carnation Growers, based on Massachusetts. According to Barbara Garsoe’s account, “there were as many as 150 members who belonged at one time. When it shut down, there were only five left.” Significant shifts in the industry were occurring.

These changes required reassessment of challenges facing the industry. As Barbara Garsoe describes it,

> Carnations began to come into the country from Central America, where they could be landed in Florida much cheaper, than we could raise them. They arrived in bud form. The florists put them into warm water to assist the opening. What were we doing, keeping the greenhouses warm in zero temperatures? It took a lot of decision making, but in 1972, we shut the doors and let it all freeze – a little heartbreaking.

Given the history of Sunnyside Greenhouses, and given the commitment of its successive generations, this decision was courageous and startling.

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49 Interview with Don Drew, June 8, 2016

50 Garsoe, Barbara, op. cit.
Why did the carnation industry in Cumberland collapse?

Conditions were changing. Some fixed costs were difficult to control. Clearly, climate in Cumberland required during the winter the use of artificial heat in the greenhouses. Cost of fuel increased. Cost of transportation increased. Fixed costs began to outweigh significantly the revenue.

Entrepreneurs in Latin America had a comparative advantage. Living in a tropical climate, they did not need to heat greenhouses during the winter. After growing carnations in their tropical climate, growers could deliver carnations in bud form to nearby southern ports in the United States. These deliveries increased the supply of carnations.

When the supply increased, the price decreased. Greenhouse carnation growers were trapped. Their costs of production remained basically the same. They could not afford to sell their carnations for significantly less money. They could not compete with growers from a warmer climate.

Under this principle of comparative advantage, each country specializes in production and export of goods it can produce at relatively low cost and produce much more efficiently than other countries. The fact is countries in tropical climates have an advantage in growing carnations. Similarly, countries in frostier climates have an advantage in producing maple syrup!

Globalized trade permanently changed the world for better or for worse. In rural communities such as Cumberland, its impact could not be ignored. Clearly, this illustrates how events abroad can cause the collapse of business cycles at home.

In Cumberland, however, its base of entrepreneurs remained strong. Drawing on the inspiration of their forerunners, they learned how to innovate anew. But that is another story.