Newton's 19th Century Architecture:

Newton Upper and Lower Falls

Department of Planning and Development
Newton Historical Commission

NEWTON'S 19th CENTURY ARCHITECTURE: UPPER AND LOWER FALLS

Historic Newton, Inc.

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PREFACE

This guide has been prepared as an introduction to the architecture of Newton Upper and Lower Falls, both developed early in the nineteenth century as mill villages. Included in this booklet are a history of both villages, a brief guide to understanding architectural design, and a review of the most common architectural styles with photographs of local examples.

This booklet is part of an ongoing project to identify and study Newton's architectural heritage. Under the Newton Historical Properties Survey, structural inventories have been completed in Auburndale, Newtonville, Newton Corner, Nonantum, and West Newton. Based in part on information from the Jackson Homestead's *Newton's Older Houses* series, this inventory records the date of construction, architectural style, and provides a brief historical background of each structure built prior to 1907. Copies of these forms are on file at the Newton Housing Rehabilitation Fund Office and at the Massachusetts Historical Commission in Boston. Guides to the nineteenth century architecture of these villages have also been published along with walking tour brochures.

Many people have contributed time and assistance during the course of this project. They include several members of the Newton Historical Commission, Larry Bauer, Barbara Thibault, and especially Thelma Fleishman and Jean Husher whose efforts, guidance and editing skills were sincerely appreciated. Georgina Flannery, Mary Elizabeth Rubin, and Susan Cain of the Newton Free Library, and Duscha Scott of the Jackson Homestead, as well as the staffs of the Newton Housing Rehabilitation Office, the City Clerk's Office and the City Engineer's Office all provided helpful assistance. Bruce Fernald, as Project Director, provided guidance during the structural inventory. Kenneth Newcomb, a lifelong resident of Upper Falls, shared his knowledge of local events and was always available for a historical question. Finally, thanks are extended to Gregory Deyermenjian for his support during all phases of the survey.

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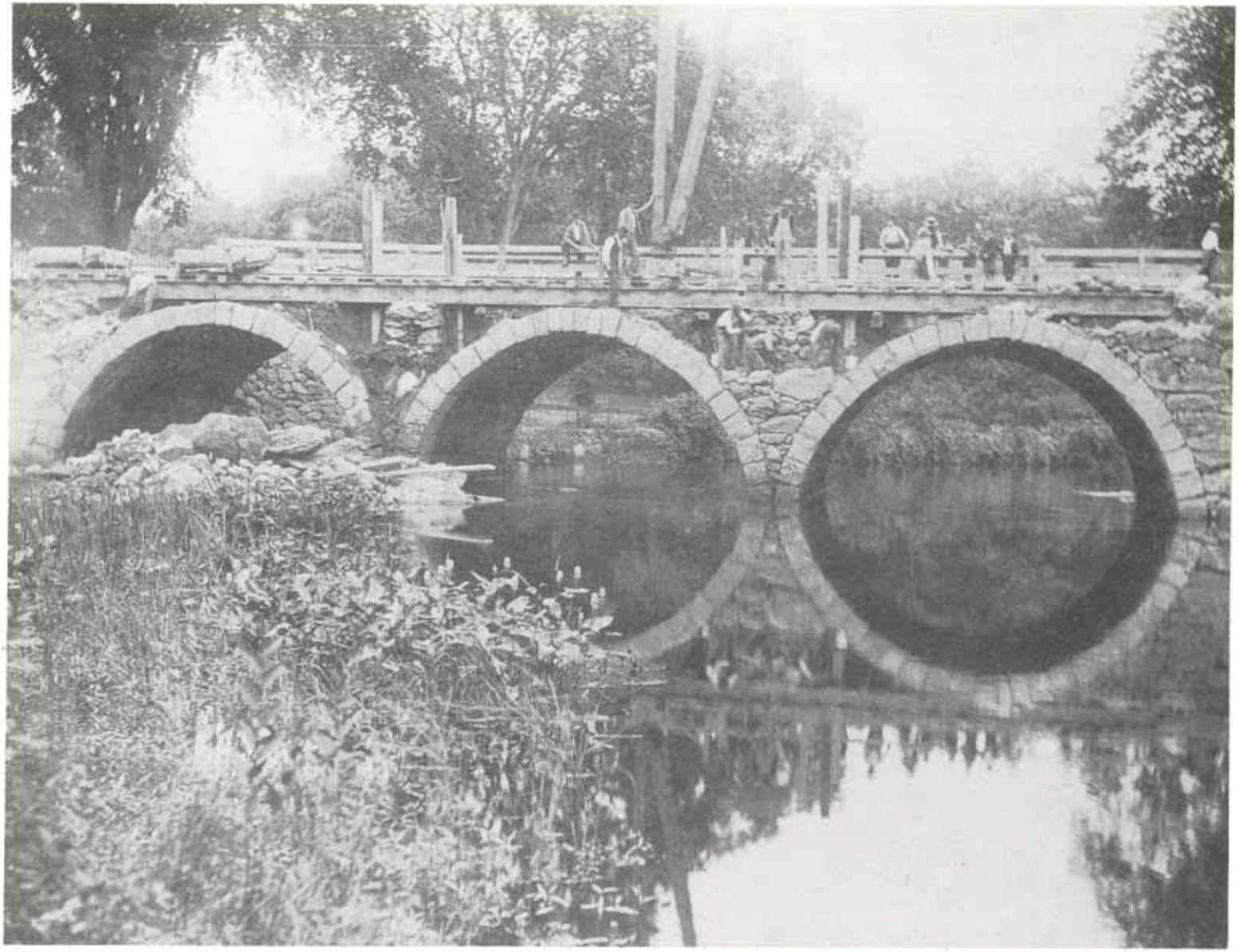
Cook's Bridge (Elliot Street-Central Avenue), Newton Upper Falls.
Rewidening to accommodate streetcars to Needham, 1906



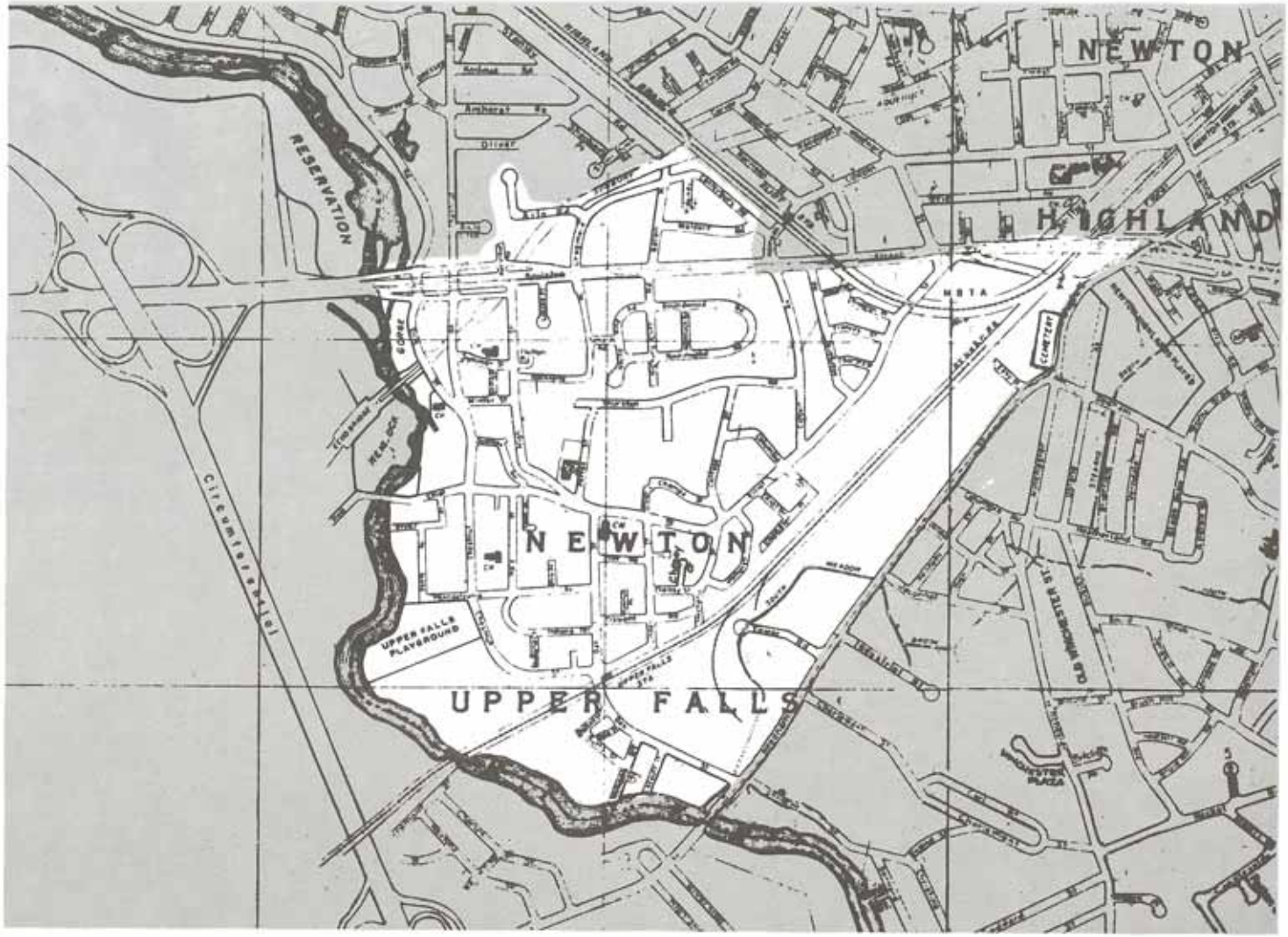
THE GROWTH AND DEVELOPMENT OF NEWTON UPPER AND LOWER FALLS

The City of Newton lies about eight miles west of downtown Boston, where the Charles River makes its last loop as it drops in a series of falls and rapids on its way to the sea. It is to these falls and rapids that the mill villages at the Upper and Lower Falls owe their origin.

Since 1809, the Turnpike from Worcester to Boston has cut across the southern part of Newton, and since the 1930's, as Route 9, has effectively isolated the village of Upper Falls from the rest of the City and from change. Thus, a sizable area of the nineteenth century village has remained virtually intact, and in 1977, Newton's first Historic District was established to protect this architectural legacy.

In Lower Falls, however, the construction of the circumferential highway (Route 128) in the 1950's effected considerable change. Coupled with the Urban Renewal programs of the 1970's, the built environment has been radically altered by the demolition of irreplaceable historic landmarks: mill owners' and laborers' houses, a church, and schools. Now only remnants of this once prosperous mill village remain on the road to the river (Washington Street), although on side streets much of the nineteenth century architecture can still be seen. Several Cape Cod, Greek Revival, and Italianate cottages where papermakers, carpenters, shopkeepers, and mechanics dwelled, remain as a visual link to the past.

NEWTON UPPER FALLS



Plan of Newton Upper Falls, showing boundaries of Newton Historical Properties Survey, 1978

DEVELOPMENT OF INDUSTRY

John Clark was the first to develop the river's energy potential in Newton. In 1688, he constructed a dam and saw mill at Upper Falls where the water dropped 20 feet. An access road, later known as Elliot Street, was soon laid out from the Sherborn Road (the main east-west highway) to the mill site, to facilitate the transportation of the milled lumber.

Clark bequeathed the mill and his land holdings to his sons, John and William, who sold quarter shares to Nathaniel Parker and Nathaniel Longley. In due course Parker's son, and later his grandson, became the sole owners. Grist and fulling mills were added, the latter of which mechanically finished woolen cloth by pounding it with fuller's earth. They marked a crude beginning to the full mechanization of the nineteenth century textile industry. The mills were modest in size and employed only a few workers aside from members of the mill owners' families.

Development of the water power at the Upper Falls intensified after the Revolutionary War. In 1778 Thomas Parker sold Simon Elliot, a wealthy Boston tobacco merchant, a quarter acre of land and his tobacco house. As the custom of taking snuff was popular during the period, the factory prospered and, in 1782, Elliot purchased a further five acres including Parker's dwelling house, grist mill, malt house, water rights, and several other undeveloped parcels in the neighborhood. Expanding to four snuff mills by the close of the decade and employing several workers under the supervision of a professional snuffmaker from Germany, Elliot's firm was one of the largest in eighteenth century New England. He died in 1793 and his wife, daughter Sarah (the wife of Thomas Handasyd Perkins), and son Simon (known to Boston Society as the General), inherited his estate.

It was at this time that a second industrial site was developed where Turtle Island divides the Charles River. Here Thomas Parker constructed a dam and saw mill which was in operation by 1782. Thomas Parker's son-in-law, Jonathan Bixby, a blacksmith from

Development at Upper Dam, c. 1880 (Elliot Mills)

Needham, was the first to build on the island. He acquired the water privileges from Parker in 1783, and built a scythe mill with grindstones turned by water power. In 1798 Bixby sold shares in his mill property to Boston merchants Jonathan and Rufus Ellis, and the Newton Iron Works was subsequently incorporated. Rufus Ellis oversaw construction of a permanent dam across the Charles River in 1800, and the iron works with furnaces, rolling and slitting machinery on the island. He was later appointed general manager. As Newton was predominately a farming community, tools and farm implements were in continual demand. At its height, the company manufactured 1200 tons of nails annually as well as 2,000 tons of other iron products made from quality material imported from Norway, Russia and Sweden. Although the early industry at the Upper Falls was extensive, only a few families resided in the village previous to 1800. The Bixby House at 744 Quinobequin Road, constructed during the mid-eighteenth century, is the neighborhood's oldest farmhouse. Originally situated adjacent to the Charles River, this residence was moved to its present site during one of Boylston Streets numerous widenings. The Georgian style half-house at 1034 Chestnut Street (c. 1770) is said to have been occupied by Thomas Parker, while the cottage at 339 Elliot Street (c. 1790) reflects the modest scale of workers' housing.

The Bixby House, 744 Quinobequin Road

The embargo on foreign goods in 1807 and the War of 1812 stimulated local industry, but by 1814 General Elliot was in trouble financially, and his brother-in-law, Thomas Perkins, and Perkins' brother, James, bought the mills intending to reoutfit them for the manufacture of cotton goods. The power loom had recently been introduced by the Boston Manufacturing Company in Waltham, and the new Worcester Turnpike (opened in 1809 by a private Boston company) offered an easy transportation route to both Boston and the west. However, when the war ended, the local market was flooded with foreign cloth, forcing the brothers to delay this undertaking. It was not until 1823 that the Elliot Manufacturing Company incorporated for the purpose of manufacturing cotton goods, particularly sheeting (or plain weave cloth), for which there was now a good market.

THE TEXTILE INDUSTRY

Otis Pettee (1795-1853), a young machinist who was familiar with the industry and destined to have a great impact on it, was hired to superintend the construction of the first mill and its machinery. He had been employed briefly in 1819 or 1820, as a superintendent at a cotton factory on the Needham side of the Charles River owned by Rufus Ellis. (The Ellis factory, established in 1813, was among the nation's first.) By 1824 the Elliot Manufacturing Company, with a 6,000 spindle factory, was in full operation. Each loom had the capacity to produce twenty to twenty-five yards of 30" wide cotton sheeting per day.

The life of the mill operative at Elliot Mills, as in other factories of the day, was hard. Children as young as ten years worked with their parents and were given no special consideration. The work week was six days, averaging about eighty hours. The machinery operated from 5:00 A.M. until 7:00 P.M. from March to September with a half hour allowed for breakfast and three-quarters allowed for lunch. During the winter months, breakfast was taken before work, delaying starting time until dawn. Before 1840, the best mechanics were paid $1.50 per day, and others less, according to rank. Lodgings in the many boarding houses could be had for $2.00 a week for men and $1.50 for boys.

Otis Pettee left the Elliot Manufacturing Company in 1831 and established his own plant, the Pettee Machine Works, on nearby South Meadow Brook. The shop was in operation four months later. Textile manufacturing was a growing industry throughout the northeast and new markets which Pettee supplied were opened as far afield as Mexico.

Although the company was severely set back in 1839 when the entire works burned to the ground, Pettee, undeterred, quickly rebuilt and also purchased the Elliot Manufacturing Company when it was forced to liquidate its assets the following year. He renamed the factories the Elliot Mills and immediately set about enlarging them and installing the newest machinery from his works on South Meadow Brook. The sheeting looms were converted to accommodate wider, calico cloth. The new looms, 252 of which were installed in a single room, were mechanically driven by water from below, one of Pettee's innovative patents which did away with the treacherous leather belts that powered the looms from above. In full operation, the factory manufactured 60,000 yards of calico cloth per week and was reputed to be the largest in New England.

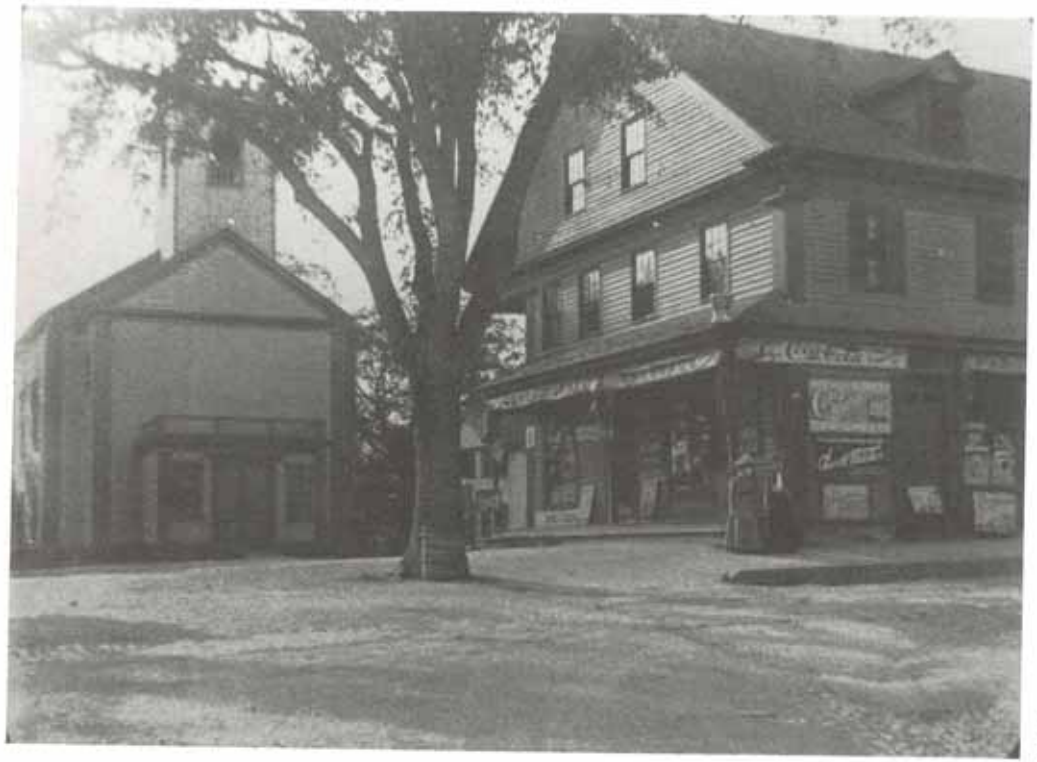
Otis Pettee

VILLAGE DEVELOPMENT

By 1831 Upper Falls was a bustling mill village with approximately 55 houses. Laborers' housing, small one-and-a-half story cottages, tenements, and boarding houses lined both Elliot Street and the Worcester Turnpike close to the mills, and a cross street (Chestnut Street) laid out parallel to the Charles River. Owned by the cotton mills, the cottages provided low-rental housing for the growing number of laborers. Preserved in the Historic District, examples of this early mill housing are numerous. Several cottages on Elliot Street, Nos. 335-337, 339, and 351-353, and on Chestnut Street, Nos. 1036-1038 and 1044-1046 were all built by 1831 and owned by the Elliot Manufacturing Company. Otis Pettee had 207-209, 216, and 221-223 Elliot Street built as housing for his mill operatives during the 1830's. By 1824, the village was large enough to require a school, which was constructed on Chestnut Street.

The establishment of a religious society in the Upper Falls was encouraged by local mill owners in the hopes that the church would have a stabilizing influence on the work force. The construction of the village's first church, Unitarian in organization, was jointly funded by the Elliot Manufacturing Company and Rufus Ellis in 1828. Unitarianism apparently did not appeal to the generality of Upper Falls people, so the building was sold to a Methodist group in 1832, and it stands today as the First United Methodist Church in Newton. A Baptist Meeting House, situated on Ellis Street, and Newton's second of that sect, was dedicated in 1833.

The Manufacturers' Hotel (1829, also known as the Ellis Hotel) was built by Rufus Ellis, to serve travelers, salesmen, and company representatives. Situated on the Worcester



Corner of Chestnut and Ellis Streets.
Baptist Church at left

Turnpike, it became a convenient stop for the daily stagecoach and the necessary changing of horses.

The village's growth was steady during subsequent decades. As the Elliot Mills at the upper dam and on South Meadow Brook and the Newton Iron Works (later known as Newton Factories) at the lower water privilege continued to expand, the surrounding farms could no longer provide an adequate labor force. Immigrants from Great Britain, and after the mid-1840's, increasingly from Ireland, filled the growing demands for mill workers. By 1848 the simple "H" street pattern had been expanded to include a number of intersecting roads, among them High, Summer, Winter, and Spring Streets. Close to the mills, the concentration of cottages doubled. However, unlike the crowded slum housing of Britain's textile industry, the new immigrant factory workers resided in simple mill housing which today forms the nucleus of the Upper Falls Historic District.

As a result of the influx of Irish immigrants, Newton's first Roman Catholic services were held in the village in 1843, in a room in John Cahill's house, which stood at the corner of Boylston and Chestnut Streets. Their church, Newton's first Roman Catholic Church, was constructed in 1867 on Chestnut Street. The church was later replaced by the Mary Immaculate of Lourdes Church, built in 1910 on Elliot Street.

While the immigrant factory workers resided in housing provided close to the mills, an emerging middle class of shopkeepers and

1848 Map of Upper Falls

skilled professionals built their houses higher up on the hillside after spending a few years boarding in houses close to their shops. Henry W. Fanning, the proprietor of a grocery store at the corner of Chestnut and Winter Streets, owned the charming Gothic style cottage at 6 Summer Street (about 1835). Luther S. Raymond, a carpenter, lived in the house at 954 Chestnut Street, built in 1832. Miss Charlotte L. Wheeler, whose home was at 1206 Boylston Street (1871), maintained a small shoe shop on Chestnut Street.

The choicest of sites, near the tops of hills with fine views of the Charles River and the distant Blue Hills, were chosen by the mill owners and successful merchants. Several of these distinctive homes are still standing and are an important component of the Historic District. The William Ellis House (1828) at 1235 Boylston Street is an elegant Greek Revival style house. Attached to its rear is a much earlier cottage, built in 1790. Frederick Barden, who leased the Newton Factories during the mid century, resided in the Greek Revival style house at 260 Elliot Street. (1838). The Stick style mansion owned by David L. Jewett, an agent for the Newton Mills, at 300 Elliot Street was originally built in 1840. It was updated during the 1880's, to a style befitting its wealthy occupant. "Near the crest of the Quebec-like ridge stands Sunnyside, the antique yellow mansion of Otis Pettee, rambling over its high terraces in luxuriant amplitude, and crowned by a little spire that recalls the colonial dignity of Mt. Vernon." extols M. F. Sweetser in his *King's Handbook of Newton*. The residence is now a part of the Stone Institute, a home for the aged.

William Ellis House, 1235 Boylston Street, 1828

RAILROAD AND INDUSTRIAL PROSPERITY

Although the Boston and Worcester Railroad was extended as far as West Newton in 1834, the Upper Falls mills continued to use the Worcester Turnpike, transporting their goods to Boston and western markets by long wagon trains. At first the railroad seemed to offer few advantages, but as locomotives increased in speed and the track was extended in all directions, a mill town like Upper Falls, without a railroad line, was at a great disadvantage. In 1844, the Boston and Worcester Railroad offered to construct a branch from its main line along the Charles River to Upper Falls. Otis Pettee, although a leading advocate for railroad service, rejected the proposal as an indirect, roundabout fifteen-mile route to Boston. He felt it would be worth waiting for a direct line from Boston which would pass through Upper Falls on its way to other important market cities to the south and southwest, and, meanwhile, contented himself with sending his manufactured goods by wagons, over Chestnut Street to West Newton, to be loaded onto freight trains.

Finally, a connecting line to the Boston and Worcester Railroad was laid out from Brookline in 1852, and provided a direct ten-mile route to Boston. (This line was known successively as the Charles River Railroad, the New York and Boston Railroad, the Boston, Hartford, and Erie Railroad, and the Woonsocket Division of the New York and New England Railroad.) The depot at Upper Falls was finished the same year. The small wood building has been recently restored and is currently used as a museum. With train service available for the transportation of raw and finished products, the village thrived. The presence of the railroad encouraged further development of the third industrial site, that on South Meadow Brook.

After Otis Pettee's death in 1853, the machine shop was continued as Otis Pettee and Company by his sons and son-in-law, Henry Billings. In 1880 Billings became sole proprietor of what was now known as the Pettee Machine Works. It was an exceedingly prosperous company, employing 1,100 workers and was Newton's largest employer. In 1897, the company amalgamated with the Saco Water Power Machine Shops of Biddeford, Maine, and was renamed the Saco and Pettee Machine Shops. Situated on a thirteen-acre site, the machine shop has witnessed considerable growth over the course of decades. The several one-to-three-story brick buildings that line lower Oak Street were built between 1899 and 1907.

While the neighborhood adjacent to the upper and lower dams was thickly settled by the 1850's, development of the interior of the village was slower. Mechanic Street, laid out by 1831, was the first street south of Elliot Street. By 1848 it was dotted with houses owned by Pettee Machine Works. The completion of the Charles River Railroad and the expansion of Pettee's company stimulated growth, and Oak and Linden Streets were laid out parallel to Mechanic Street. Within a few years, these streets, too, were dotted with modest worker housing. After the Civil War, Chestnut Street was extended below Elliot Street, and Keefe Avenue and a section of Pennsylvania Avenue

Advertisement, 1868 City Directory

UPPER FALLS ADVERTISEMENTS. 71

ESTABLISHED IN 1831.

OTIS PETTEE & CO.,

MANUFACTURERS OF

COTTON MACHINERY,

Iron Castings, Shafting, Gearing, &c.

The attention of Cotton Manufacturers is called to our latest

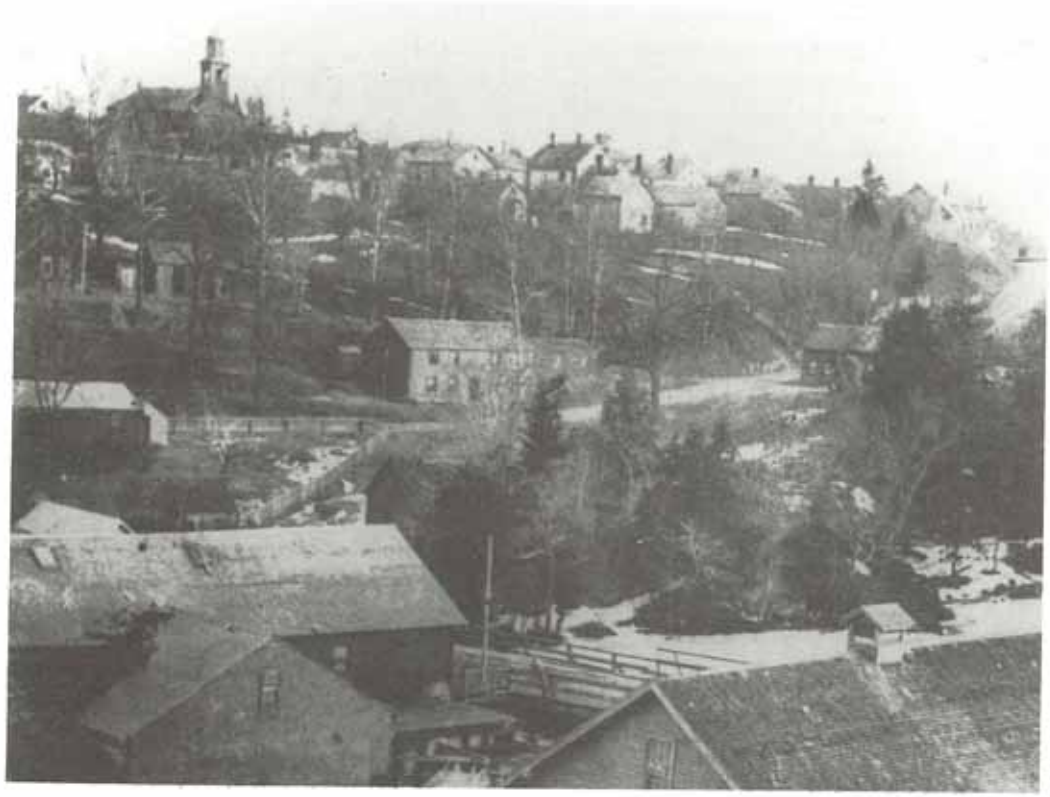
IMPROVED GEARED SPEEDER,

which embraces all the late improvements in either American or English Machines; with a Centrifugal-Force Presser on the long flyer, superior to any thing before applied; which enables the operator to run the machine at any desired velocity, without shaking the frame. Also arranged for relieving the spindles of nearly all friction while running.

NEWTON UPPER FALLS, MASS.

were laid out and divided for house lots. By 1874 Chestnut Street was sprinkled with Mansard and Italianate style cottages, several of which were occupied by Irish laborers. Cottage Street and the hill were evidently named for the several small dwellings that were constructed at this time.

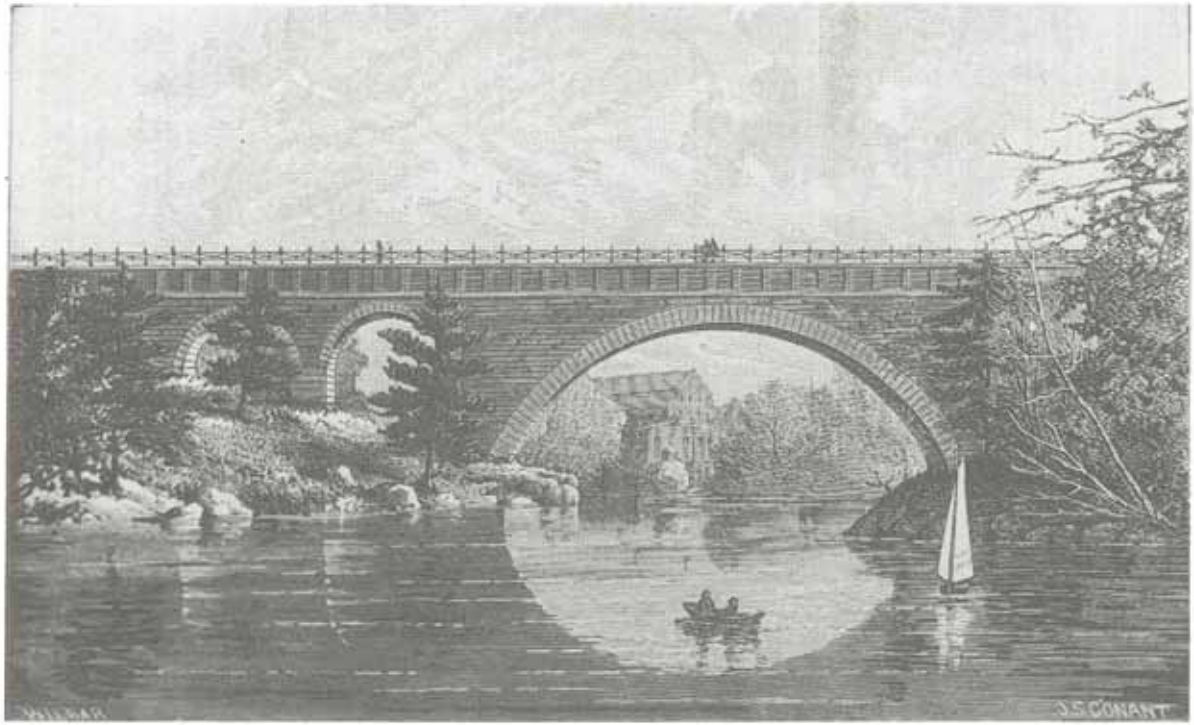
The village continued to prosper during the latter part of the nineteenth century as new industries opened at the older mill privileges. One such one was Benjamin Newell's paper mill established in 1863, in the old nail factory on Turtle Island. The Elliot (later, the Newton) Mills continued to manufacture cotton cloth until 1883 when, unable to compete with the textile factories at Lowell, Lawrence, and Fall River, they were among the many forced to close. The mill site, described as "a great quadrangle of weather-beaten brick mills" by M. F. Sweetser in *King's Handbook of Newton* (1889), was not long vacant. Purchased by the William T. Ryle Company, a new Jersey based silk manufacturer, late in the summer of 1886, the buildings were leased to Walter T. Phipps and Franklin M. Train, who converted them into a large silk factory. At the outset, the company employed 225 operatives, although employment fluctuated with demand for the product. The company imported its raw material, or "waste silk" as it was called, principally from Japan and China. The demand for silk cloth was so great at times that the company was compelled to operate twenty-four hours a day for several weeks or months, as the need arose. The company was in operation until the 1950's. Still standing and the keystone of the Historic District, the old mill buildings have been adapted for use as office space, a restaurant, and a shopping mall.



View of Ellis Street before 1876 with Benjamin Newell's paper mill in the foreground

In 1888 the Newton Rubber Company built a factory next to the old iron works at the lower water privilege near the Worcester Turnpike bridge. It later became the International Tire Company which manufactured bicycle tires until it was destroyed by fire in 1907, when the site was purchased by the Metropolitan Park Commission to become a part of the Hemlock Gorge Reservation. The beauty of the reservation is enhanced by the graceful Echo Bridge, named for its resonances of the human voice. It was constructed over the Charles River between 1876 and 1877 to carry the Sudbury Aqueduct, which still supplies water to Boston.

A number of other industries, not dependent on waterpower, opened in Upper Falls after 1870, when sites close to the railroad were considered the most desirable. Among the most important was the Gamewell Fire Alarm Company, which moved from Newton Highlands in 1889 to a new wood frame building still standing across the road from the depot. This company, considered in the forefront in the manufacture of police and



Echo Bridge

fire alarms, and other emergency signaling devices, sold its products nationwide as well as overseas. As the horse-drawn, hook and ladder fire wagons and "modern" steam engines were still primitive, the quick call box was in demand. An early system was installed in Newton during the 1870's. As evidence of the company's prosperity, the three-story brick building at 1254 Chestnut Street was designed as office and storage space by architects Lockwood and Green of Boston, and built in 1904 by Henry F. Ross, a well-known local contractor. The company remained in operation until the 1970's.

During the closing decades of the nineteenth century, it was again necessary to add to the housing stock and several streets were laid out and developed opposite the Pettee Machine Works on lower Oak Street. Champa Street was laid out across Henry Billing's four-acre estate after his death in 1887. The

Boylston Street at Charles River, March 15-16, 1902

Italianate style houses at 27 and 37 Champa Street (both 1860's) were once a part of his estate. In the mid 1890's, Frank J. Wetherell sold off the old family homestead, a Greek Revival style house at 192 Elliot Street (c. 1840), and moved to Newtonville. At the turn on the century, Upper Falls was at the height of its industrial prosperity and almost totally independent of the city of which it was a part. Most of the needs of village residents were provided within the village itself: employment in the various mills, housing for all levels of society, schools, churches, a fire company, and many small shops, individual contractors and tradesmen, clubs, and organizations.

The great depression of the 1930's broke the pattern of Upper Falls' development. Several of the largest mills were forced to close. Others were given temporary new life through World War II only to decline in the 1950's. The last of the nineteenth century factories, Gamewell, became a division of Gulf and Western and left the area in the 1970's. The demise of the industries and a slow change in the make-up of the population also caused many of the small shops to go out of business. These are now largely antique stores which cater to an outside clientele. Those who live in the cottages and larger houses in the village by and large do not work in the village; and conversely, those who work in the village come from elsewhere. Slowly, Upper Falls is joining the rest of Newton in becoming a suburban community although its architectural environment reminds us of its rich industrial past.

WINTER SCENE FROM HICKORY CLIFF.

"Deep is the snow on Hickory Cliff,
And white the top of the Baptist tower;
The ice-bound river clanks his chains,
And strives to shake off Winter's power.

"Dark are the pines on Prospect Hill,
And frosty bright are Waltham's spires;
The sledded milkman homeward glides,
Rich in his dreams of kitchen fires.

"Weston's and Wellesley's rounded backs,
Shaggy with woods, look cold and still.
Deep in the gorge the silvery ice
Fringes the snowdrifts white and chill.

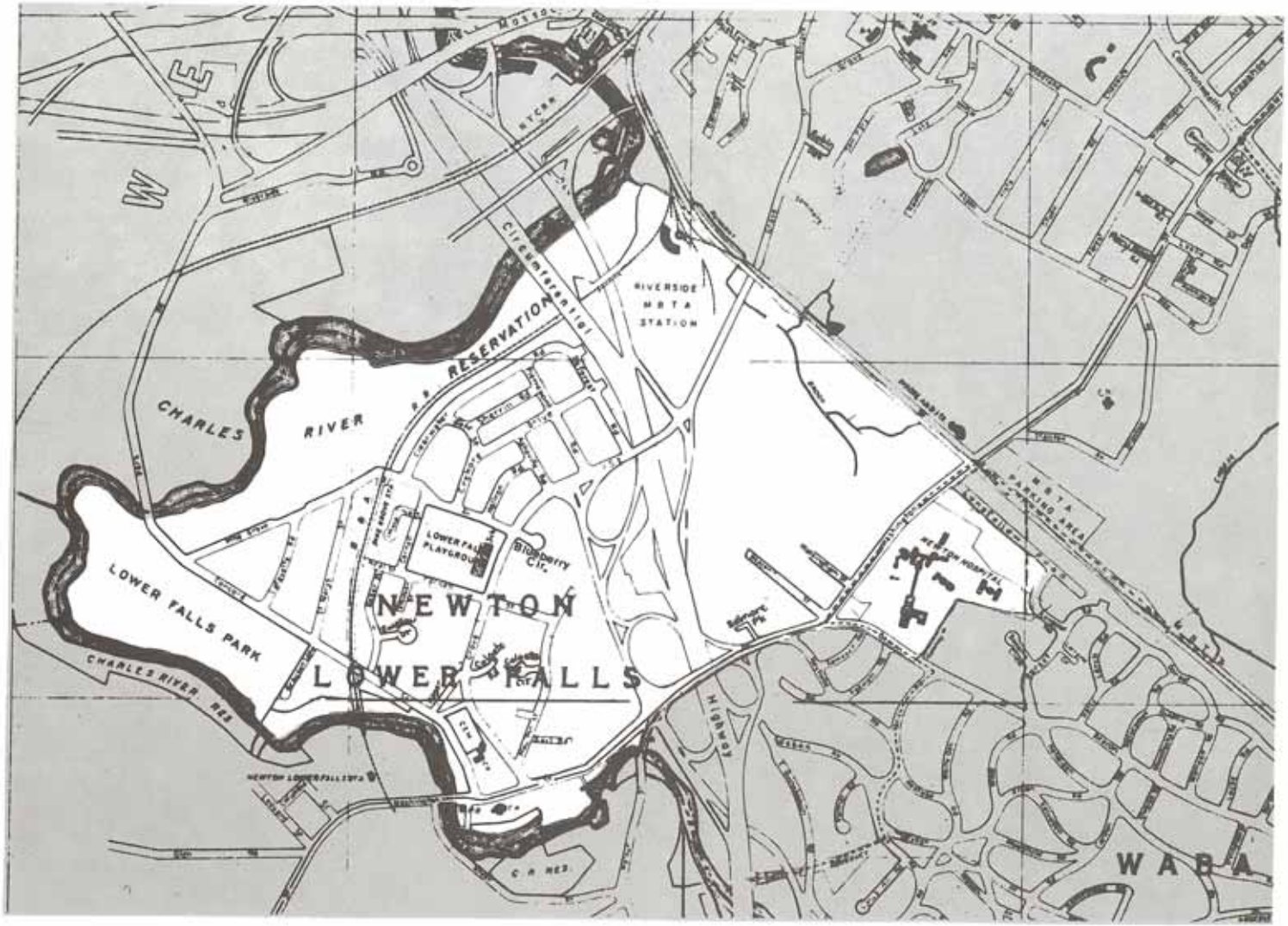
"Dover, so blue in summer days,
Seems to be robed in whitest wool;
While dimly the dome of Dedham shows
'Gainst Milton's purple ridges cool.

"Gray are the woods on Oak Hill's crest,
The shivering birches dot the plain;
The red roofs show no more their red
Till Winter's mantle lifts again.

"But hark! the gust! I must begone;
These arctic bees, the snowflakes, sting.
The poet's beard is stiff with ice,
My frosty muse must fold her wing."

This charming poem, reproduced from M. F. Sweetser's *King's Handbook of Newton*, was penned by local resident William Peirce before 1889. He lived in the eyecatching Stick style house at 1190 Boylston Street (1881, Figure 27).

NEWTON LOWER FALLS



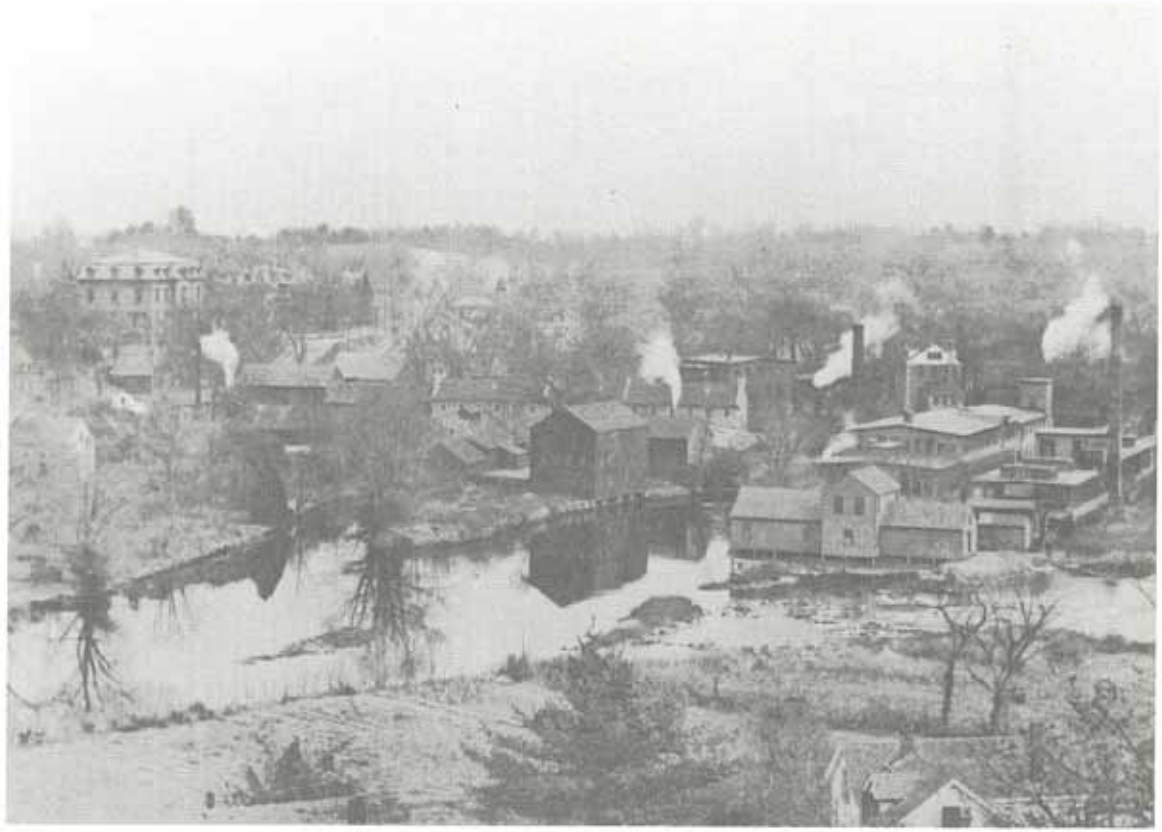
Plan of Newton Upper Falls, showing boundaries of Newton Historical Properties Survey, 1978

EIGHTEENTH CENTURY INDUSTRY

Situated at the southwestern corner of Newton, the village at Lower Falls is encircled on three sides by the Charles River. Since the village at first clung closely to the river, its northern boundary remained undetermined until the Highland Branch of the Boston & Albany Railroad was constructed out to Riverside in 1886. Though currently separated from the principal part of the village by Route 128, the Newton-Wellesley Hospital and the small cluster of homes near the corner of Beacon and Washington Streets are considered part of the village.

The earliest record of water-powered manufacture on the Newton side at Lower Falls dates back to 1704 when a dam was built above the rapids to supply power for an iron works. John Hubbard and Caleb Church, a blacksmith from Watertown, shared the enterprise. By 1718 the Hubbard family had added fulling, saw, and corn mills. Twenty years later the dam and iron works were purchased by John Willard, a blacksmith and bloomer, who operated the foundry until his death in 1772. He was a well-known figure in the eighteenth century Lower Falls.

Much of the village's early industrial activity was centered on John Hubbard's original four-acre site. Other businesses included a tannery, nail factory, and snuff mills, all situated at the upper dam. By the close of the eighteenth century, there were ten families residing in the village. Bitter complaints to the town by the villagers that there was no school close enough for their children to attend resulted in the construction of a schoolhouse in 1785. Though extensively altered, the Baury House at 2345 Washington Street, an imposing Georgian style mansion probably constructed in 1755, is the only residence to survive this early period.



Overview of mill site, 1888

PAPERMAKING

John Ware was responsible for introducing papermaking to Lower Falls in 1790. He built his mill of local granite on land at the upper dam that he had acquired from Timothy Daniels a year earlier.

William Hoogs and Ephraim Jackson built a second dam, later known as the Washington Street Dam, just south of Pratt's Bridge in 1788. (The dam was rebuilt under the bridge in 1869.) Between 1793 and 1818, three paper mills were built there, one on each bank and one on an island, since removed. These were the Nehoiden Mill, a later name for the mill constructed by Hoogs and Jackson (1793, in Needham, now Wellesley), the Brown Mill (1813, in Lower Falls) and the Lyon Mill (1818, on the island).

By 1816, there were six paper mills sharing the water power of the upper dam, four of which were in Lower Falls. In addition, there were fulling and saw mills. When the demand for water power increased to the extent that it became more than the river could produce, water rights were disputed and the first of many formal agreements was established. In 1816, the first right to water was granted to the paper companies.

The Papermaking Process

During the early years, paper was made by a hand process developed centuries earlier by the Chinese. Cotton or linen rags were softened and poured onto framed wire screens which allowed the water to drain through, leaving a film of pulp behind. Pulp adhering to the screen was peeled off, pressed between sheets of felt, and then hung to dry. The hand process, from beginning to end, took three months to ready a sheet of paper for use. The Hollander machine, invented in Holland before 1725, mechanized the washing and beating process. This machine came

"How paper was made up to the first decade of the 19th century."

into use in America about 1775. A bleaching process, making possible the production of white paper, was developed in 1774 by a German chemist. The invention of the Fourdrinier machine in 1807 dramatically increased the production of paper. This machine manufactured paper by the roll, ready for use within a day. Named for its financiers, the Fourdrinier machine was patented in England and its exportation was illegal. The Cylinder machine patented by John Gilpin of Philadelphia, was the first American invention. It was evidently based on a wire-covered cylinder machine, invented by John Dickenson in England in 1809.

As the demand for paper steadily increased, a serious shortage of suitable rags developed. Thrifty New England housewives had relatively few rags, for adult clothes were redesigned or cut down for children and left-over pieces were usually incorporated into rag rugs and quilts. Advertisements urging housewives to save rags appeared in newspapers to no avail. One company included "save rags" into its watermark. So desperate was the need that rags were imported by the boatload from Europe and the Near East. In addition, waste paper was used in the production of cheaper grades of paper. Foreign papers, brought into the country as ballast, were cheaply bought. Experiments using every imaginable substance were carried out to find a readily available raw material from which to make inexpensive paper. It was not until 1863, that a method for creating paper from wood pulp was patented, revolutionizing the industry.

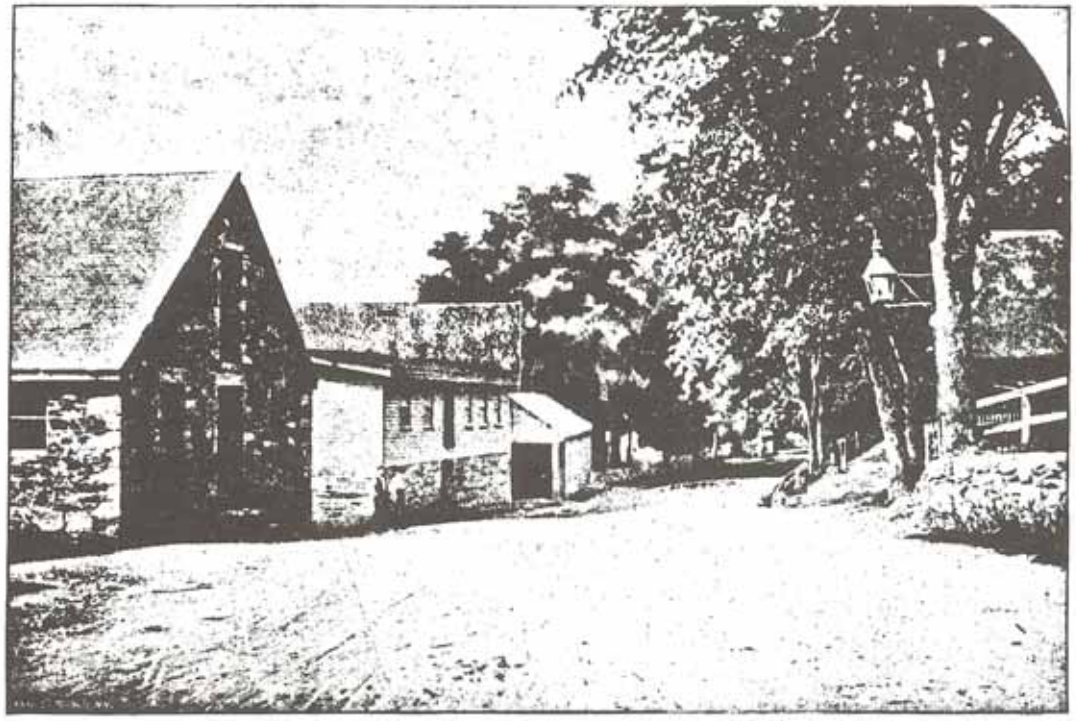
Advertisements, 1875 City Directory

CREHORE MILLS

Lemuel Crehore was a prominent figure in Lower Falls during this early period. In 1825 he purchased a share of the Ware Paper Mill from William Hurd, who nine years later sold all of his mill property to Crehore. The Crehore Paper Mill conducted its business under several names during the nineteenth century, Hurd and Crehore (1825), Crehore and Neal (1834), Lemuel Crehore (1845), Lemuel Crehore and Son (1854), Lemuel Crehore and Company (1867), Charles F. Crehore (1868), C.F.Crehore and Son (1883), and was owned by the family until 1919. The mill manufactured a grade of cardboard known as "press paper" for which there was a steady demand in the woolen mills. By the end of the period, the business had been extended to include the making of loom cards for Jacquard prints, carpets, and curtains. As late as 1938, the Crehore Mill was the only mill still producing paper. A portion of this mill, known today by its original name, the Ware Paper Mill, still stands at 2276 Washington Street, handsomely reused as a branch bank. This valuable structure is listed on the National Register of Historic Places.

Moses Grant, whose papermill was later absorbed into Crehore's Mill, was well known among the early proprietors. He established his mill about 1809, at the upper dam and manufactured glazed bookboard. He was a benefactor to St. Mary's Church. Grantsville, later known as Wellesley Hills, was named for him in 1851.

The Curtis Paper Mill was situated in back of the Crehore Mill and shared the same water privilege. Once composed of several small buildings, the original stone foundations and some gable end walls of the old



Crehore Mills, Washington Street, 1889

CURTIS MILLS

paperworks are still clearly visible, having been incorporated into later construction.

Solomon Curtis, a papermaker from Milton, collaborated with General Simon Elliot from Upper Falls at the outset. Curtis had nine sons, all of whom became papermakers. Most of them took their skills elsewhere and started new papermaking centers in New Jersey, Delaware, and Canada. However, Allen C. and William Curtis remained in Lower Falls, and succeeded in ownership of the mills after their father's death in 1819. Newsprint and fine book papers were a specialty of the mill, though it also manufactured banknote paper for a bank in Dedham. Known for the excellence of its product, the Curtis Mill was awarded a silver medal for its print paper at the Massachusetts Charitable Association's Printing Paper Exhibition in 1839.

The Curtis brothers installed two English Fourdrinier machines in their mills by 1828. This machine, capable of producing fifty-foot rolls of paper, greatly increased the company's production. Among the first such machines installed in this country, local historians assert that they were obtained surreptitiously. A detailed account in the *Newton Journal*, dated January 1, 1870, states that John Nichols, a papermaker in the Thomas Rice Mill. smuggled such a machine piece by piece across the ocean from Scotland. In 1828 there were but six papermaking machines in use in Massachusetts among the sixty paper mills in operation, and Lower Falls, at the forefront of production, had three. When papermaking was at its height, it was customary for the Curtis Mills to run twenty-four hours a day, six days a week. Papermaking started at midnight on Sunday and production continued until midnight the next Saturday.

The prosperity of the 1850's with the Fourdrinier machine in general use, gave way to severe business competition by the close of the decade. With the introduction of cheaper paper, made from woodpulp readily available in western Massachusetts and elsewhere, paper prices dropped too low for the mills in Lower Falls, geared to rag paper production, to compete. The Curtis Mills were forced to liquidate in 1860. The mill complex was purchased by the Cordingly Brothers and converted for the manufacture of shoddy (a combination of new and reclaimed wools). The Civil War stimulated business for a few short years during which the price of newsprint increased from eight cents per pound to a high of thirty cents, but this was an artificially inflated price. The end of the war and the continued growth of the woodpulp papermaking industry elsewhere sealed the doom of most of the companies at Lower Falls.

The Nehoiden Mill was converted to the manufacture of shoddy in 1874. The Brown and Lyon Mills, later known as the Foster Mills, burned in 1893, never to be rebuilt. Both the Wales and Mills' Mill and the Rice and Garfield Mill were demolished in 1900 and the machinery was sold. By then, the Crehore Mill was the only paper mill still in operation.

Advertisement, 1868 City Directory

W. S. & F. CORDINGLEY,
MANUFACTURERS OF
WOOLEN SHODDY.
Wool Scouring, Washing,
SORTING, GRADING, & BURRING,
—AT—
STONE MILLS,
NEWTON LOWER FALLS.

Office, 409 Broad Street,
BOSTON.

MANUFACTURING VILLAGE

The prosperity resulting from the paper industry stimulated development at Lower Falls during the first third of the nineteenth century. Washington and Concord Streets were lined with cottages and tenements. The cornerstone for St. Mary's Episcopal Church was laid in 1813 on land donated by Samuel Brown, a paper mill owner. This church, the oldest still standing in Newton, has been listed on the National Register of Historic Places. Episcopal services were first held in 1811 in the schoolhouse on Washington Street (since demolished). Citizens from Needham and Weston united with the local group and the parish was subsequently organized.

As paper mills had a deplorable record for fires throughout the nineteenth century, and in order to protect these valuable industries, the Cataract Engine Company was organized in 1813. The company was the first of Newton's volunteer bucket brigades.

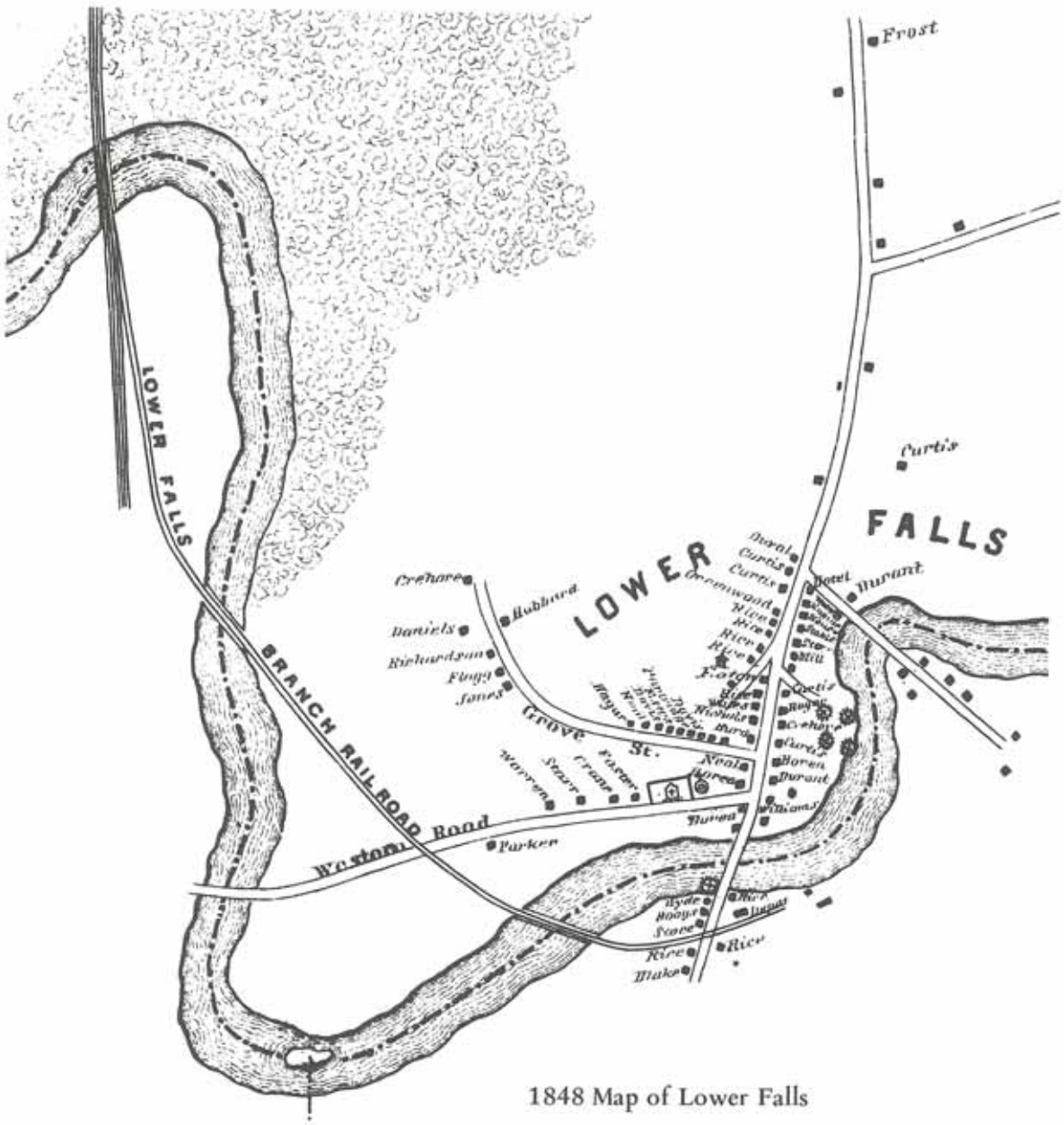
Lower Falls straddled the old Natick Road (Washington Street), an important east-west colonial highway. Stage service to Boston passed along it through the village three times a week, and it was here that Newton's first United States Post Office was opened in 1816. A country store, kept by John Pigeon, serviced the needs of the community which had grown to 405 inhabitants by

Cataract No. 1 in front of Allen C. Curtis house, 26 Quinobequin Road

1823. Very few houses have survived from this era. Those that have not been radically altered or destroyed include the Warren-Swallow house at 186, and the Cordingly house at 198-200 Concord Street, both built about 1830 and attributed to Asa Kingsbury, a local housewright.

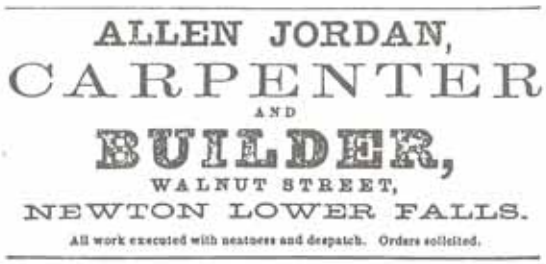
The Boston and Worcester Railroad had initially planned to construct its main line through Lower Falls, but in 1830, few residents could see any advantages accruing from such an unlikely looking device and protested its location through their village. Consequently, it was built somewhat north, through Weston. It was not long, however, before the village realized its mistake and the Newton Lower Falls Railroad, or "Ping Pong" line was constructed as a spur to the main branch in 1840.

The conversion to machine made paper necessitated the establishment of a machine shop to produce and maintain the equipment. Reuben Ware and William Clark set up shop at the upper dam on the Needham (now Wellesley) side in 1832. The firm of Eaton, Moulton and Company succeeded as owners of the shop in 1850, and employed forty workers. The company was well known for the quality of its production. Adam Beck joined the firm in 1858, and became the owner after Moulton's retirement in 1876. As the papermaking industry was in a state of decline by this time and several of the mills had been reoutfitted for shoddy manufacture, Beck added the manufacture of wool extract washers to his company's products.



1848 Map of Lower Falls

RESIDENTIAL GROWTH



During the late 1830's and 1840's Benjamin Neal and Lemuel Crehore, part-owners of the Crehore Mill, had considerable land holdings in the neighborhood. The two men developed several lots on the north side of Grove Street as housing for laborers in the local mills. The residences at 581 Grove Steet (1837-1838), 650 Grove Street (1837-1838), 656 Grove Street (1845), 666 Grove Street (1837-1838) were all occupied by papermakers.

Several housewrights were active during this period. William Lyon of Needham constructed the modest Greek Revival style house at 666 Grove Street (1837-1838), the Cape Cod cottage at 676 Grove Street (1842) built for Rufus Moulton, the high-style Greek Revival mansion built for Allen Crocker Curtis at Quinobequin Road (1845, now the Pillar House Restaurant) and the William Curtis house, a handsome Greek Revival style house at 2330 Washington Street (1839). Vaughn Jones is credited with the construction of several cottages on Grove Street, among them No. 665 (1848-1854), and No. 671 (about 1850). William and Allen Jordan built and occupied the Greek Revival style house at 122 Concord Street (1848-1852). The population of the community steadily increased from 560 inhabitants in 1847 to 627 inhabitants and eighty houses three years later.

Residential development came to a near standstill during the closing decades of the nineteenth century. Indeed, change occurred only on a very small scale until after World War II when highway construction caused the destruction of a number of early houses. Urban renewal has replaced much of the early mill housing on Washington Street with modern cluster housing and a large parking lot. Modern suburban housing has been built in great quantity on the attractive lands north of the village center and away from the river which had played such an important role in Lower Falls' nineteenth century development.

122 Concord Street, 1848-1856

NEWTON-WELLESLEY HOSPITAL

Quite apart from the industrial development of Lower Falls is the growth of the Newton-Wellesley Hospital. It was originally incorporated as the Newton Cottage Hospital in 1881. The Newton Hospital Aid Association, organized by the women of the city in 1885, provided an endowment fund for the hospital. Its first buildings, a cluster of small cottages, were constructed in 1886, and were modeled after the institutions in England where beds were provided for ten to fifteen patients in each cottage.

The hospital was considered an experimental laboratory, and provided a forum for young physicians. Its staff was drawn from two different schools of medicine: homeopathic and allopathic. The two schools existed side by side, and the patient, upon admission to the hospital, specified the medical treatment he preferred. A training school for nurses was added in 1888.

Continually expanding over the course of the years, the hospital has grown many times over since its cottage beginnings. The complex currently consists of approximately thirteen one-to-five-story brick buildings situated on a hilly eighteen-acre site. Several of these buildings, Eldridge Ward (1898), Mellen Bray Ward (1898), Haskell-Emerson Operating Building (1898), Contagious Wards (1901, 1902), Ellison Hall (1905), and the Founders Memorial Building (1907), were designed by architects Kendall, Stevens and Taylor of Boston, giving the complex a sense of unity. The firm specialized in hospital work. Boston City Hospital, Massachusetts Hospital for Epileptics, Corey Hill Hospital, and the Merritt Hospital at Oakland were among its many credits. The oldest building on the site is the woodframe Pratt-Converse Nurses' Home. It was designed by architects Hartwell and Richardson, locally known for their many school designs, and built in 1894.

Newton-Wellesley Hospital, 1907

LOOKING AT ARCHITECTURE

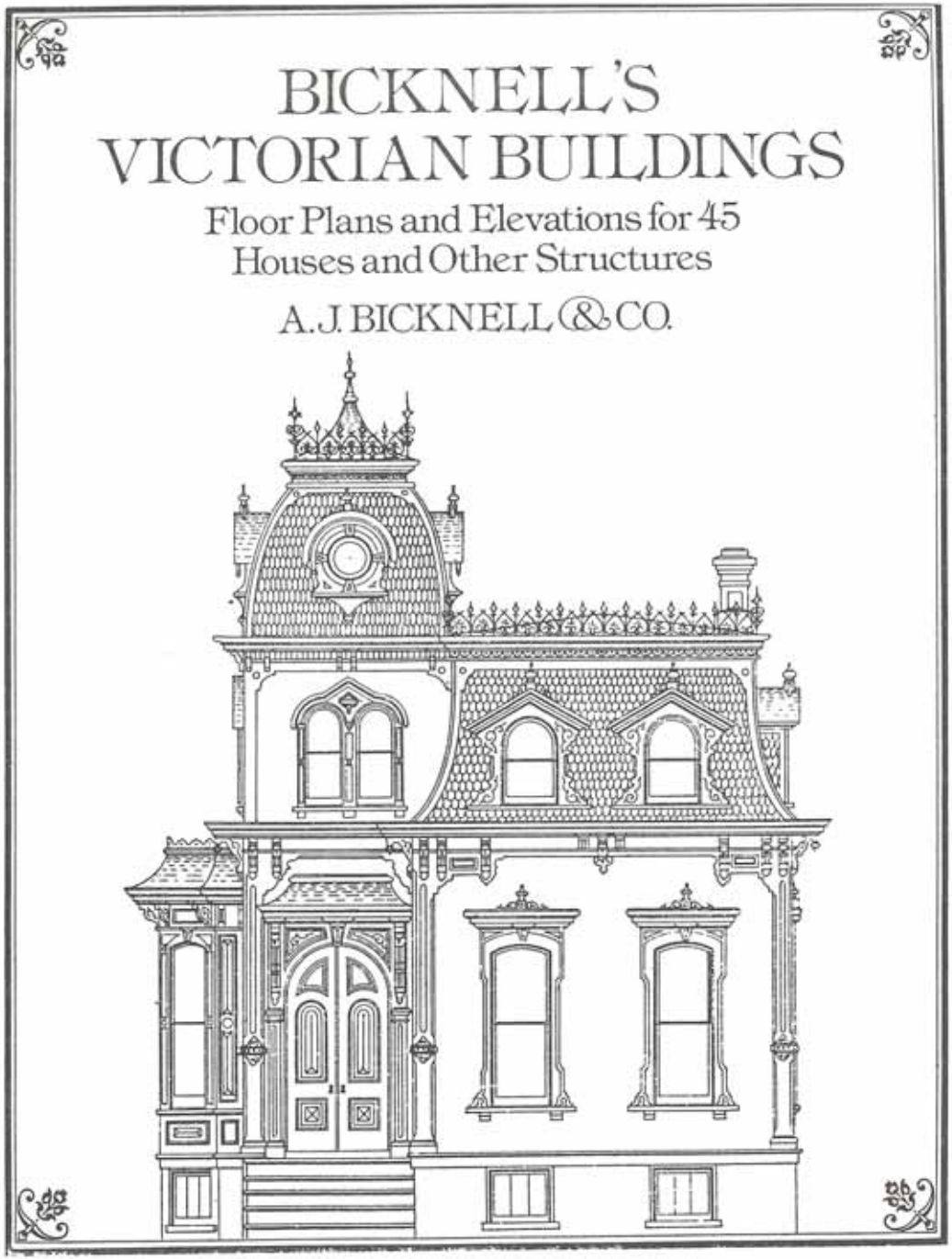


Figure 1. Cover of one of the popular architectural pattern books of the period (1878)

The designs for churches, commercial blocks, mill sites, and the majority of houses in Upper and Lower Falls were the product of local builders, contractors and carpenters. Essentially craftsmen, these men were highly competent in practical matters like framing systems, which during the nineteenth century included not only the buildings' basic internal structure, but also the complex roofline shapes and curving projections of the late Victorian era.

The builder participated fully in the design process. In addition to new developments in framing technology, he was required to absorb a rapid succession of architectural styles, adjusting them both to the taste and the pocketbooks of his clients. To accomplish this, he borrowed from designs that had been successful for other builders, or consulted an architectural pattern book (Figure 1). These handbooks of sample floor plans, house designs, and ornamental trim (Figure 2) were widely published by architects and builders throughout the nineteenth century. Often a builder and potential homeowner reviewed these books together, selecting elements from several illustrations to be incorporated into a new design.

Wood was the most abundant and inexpensive building material of the nineteenth century, and was used in the majority of Upper and Lower Falls' suburban residences. It appeared in the internal structure, as a weatherproof skin for the exterior, and as ornament throughout the building. In the early 1800's, wood was fashioned by relatively primitive saws into linear shapes, used horizontally for clapboards, and in flat boards and moulding strips for decoration. With the introduction of more complex woodworking machines in the mid-nineteenth century, thousands of board feet of intricate wood trim (Figure 3) were easily produced in a variety of fanciful scalloped, scrolled, curved and twisted shapes.

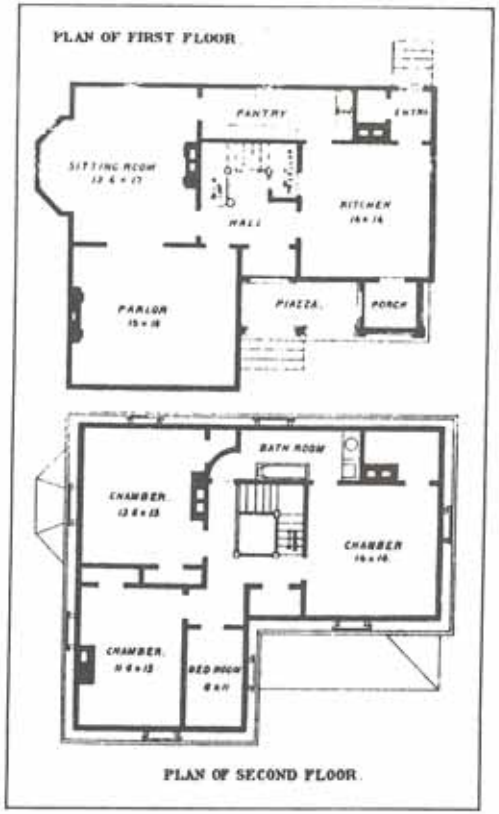


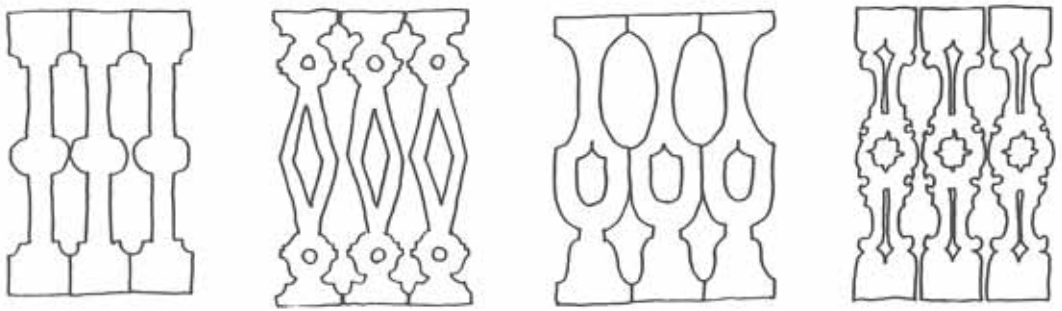
Figure 2. House Plan, *Bicknell's Victorian Buildings* (1878)

Creating a house design involved a number of limiting factors. Economic constraints imposed by the income of the client, for example, reduced the design options of the builder or homeowner. Speculative builders who constructed housing for an unknown buyer were even more restricted in their choices. Limiting their capital risk, this class of builder frequently selected conservative designs in a few popular styles which had already found acceptance among potential homeowners.

Cultural factors played a determining role in the exterior appearance of a house as well. In every age and culture there have been shared perceptions of how a home should look and function. Although taste in architecture is tied to personal experience, education, social status, and cultural factors strongly influence the collective set of images of what is felt to be a beautiful or appropriate house in a particular era. During the nineteenth century, preferences in architectural design were expressed by ornately decorated houses that reflected a series of rapidly changing fashions or styles.

The kinds of rooms a house should have were similarly culturally determined. Victorian homeowners, for example, had a more formal attitude toward outsiders than modern families. In the nineteenth century, entertaining space was often divided into a formal parlor reserved for visitors and a separate sitting room for family intimates. These two functions were combined during the twentieth century to form the modern living room.

Figure 3. Machine-sawn architectural ornament



Largely developed during the early to mid-nineteenth century, the residential architecture in both Upper and Lower Falls, as in the typical New England mill village, was related to the local industry. Built on small, closely spaced lots near the mill sites, the early laborers' cottages were owned by the proprietors of the mills and rented to employees. Several mill owners' and managers' houses also remain, and, although converted to other uses, are excellent examples of domestic architecture. As a stable population of mill workers, skilled craftsmen, and small shopkeepers developed, local carpenters gained a steadier employment.

The houses that have survived in Upper Falls and along several side streets in Lower Falls represent a building tradition that developed outside the mainstream of nineteenth century architectural design. Responding slowly to the changing fashion, designs were linked to the ingenuity of local builders and to the income levels and lifestyles of the inhabitants. The architecture of both villages is essentially an urban version of the farmhouse and/or the Cape Cod cottage, and is often referred to as vernacular architecture.

The Greek Revival, which came into style during the 1830's changed this. Designs became classically oriented, and imitative of Greek temples. A trend toward picturesque architecture, first appearing in the 1840's, coincided with the evolution of a new suburban house type. Featuring a dramatic set of images that included imposing, jagged silhouettes, prominent rooflines and

Figure 4. Upper Falls:
13-15 Winter Street (about 1835)

a wealth of ornate wood decorations, "picturesque" architecture first appeared in the large country estates of the scenic Hudson River Valley.

The term "style" in architecture refers to the characteristic features of buildings erected in a certain period. Understanding stylistic trends can provide insight into the relation of the homebuilder to his time and into his expression of "contemporary" taste. Architectural style also may indicate the approximate date of a building's construction and the development pattern of a specific neighborhood.

Each style has its own system of ornament, and a distinct set of features that includes not only decorative detail, but also the proportion of a building's parts as they relate to the design of the whole. In different styles, for example, the roof could be low and insignificant, or it might dominate the entire composition.

New styles often borrowed several elements from their predecessors. A transition period of five to ten years that included features of both was common, as designers and their clients grew accustomed to the latest style. Often the decorative detail of a new fashion was first tried on the inside of a house, with the exterior design completely in keeping with the older, more familiar forms. In some cases a much earlier building was remodeled in a new style, or a porch and different ornamental trim were added to bring it up to date. The residence at 108 Concord Street, for example, was built between 1848-1854 in the Greek Revival style. A major renovation in the 1880's added elaborate Queen Anne features to the original house. The cut shingle wall fabric detailing the gable end and dormers, enclosed entrance porch with its stained glass window, and the porch with its bracketed, turned posts and valance date from the remodeling (Figure 5).

Figure 5. Upper Falls: 108 Concord Street, 1848-1854

Underlying the sequential development of nineteenth century styles were several basic trends. Historicism, or an interest in the architecture of an earlier period, was a predominant characteristic of nineteenth century architecture. This was particularly true of the Victorian era, roughly corresponding to the reign of Queen Victoria (1837-1901), when a succession of styles evoked a highly interpretive, often romantic view of the past. Historicism began in America with an interest in the classical temples of ancient Greece, waned briefly in the 1880's with the more imaginative, less historical designs of the Queen Anne and Shingle styles, and re-emerged at the end of the century with an idealized version of American colonial architecture.

Another trend, which came full circle as it developed over the century, was a gradual change in the massing, or assemblage of forms in residential architecture. The compact, crisply-defined outline of the early 1800's gave way in the period between 1840 and 1890 to more picturesque designs with broken silhouettes and a complex array of competing shapes. In the late nineteenth century, house forms reverted back to the earlier, self-contained rectilinear building types.

Most styles were imported from England, reaching this country through the enthusiasm of the European traveler, the architect who studied abroad, or architectural magazines and books. New fashions were first experimented with in large, sophisticated urban centers like Boston, and then gradually proceeded in a pattern of geographical dispersion to smaller cities and towns, and finally, to rural farming areas. As Newton's population became increasingly Boston-oriented, the usual five- to fifteen-year time period between a style's introduction and acceptance there diminished.

Descriptions of the nine architectural styles most prevalent in Upper and Lower Falls, with illustrations of representative examples of both the complex and simpler local interpretations, follow.

Figure 6. Lower Falls: William Hurd House, 2313 Washington Street (about 1816, destroyed)

The Georgian style, like most American styles until the 1880's, was imported from Great Britain. The change from the seventeenth century colonial house, an irregular form shaped by the needs of its occupants, was a major one. The steep-pitched roof of the seventeenth century American dwelling was lowered, and garrison overhangs and other Gothic ornament such as end pendants were removed. The small, leaded casements were changed to larger, double-hung windows. Most important, though, facades became meticulously symmetrical.

The Georgian period includes several trends in Renaissance architecture, covering the reigns of four English kings, George I-George IV (1714-1830). For this reason, the period has been divided into three phases. The first phase, Early Georgian, falls within the first third of the eighteenth century, and is thought to be simpler in scale than later phases. The period's distinguishing characteristics include the symmetrical arrangement of door and window openings, sash windows with small panes 12 over 12 (eighteenth century), 9 over 6 (eighteenth century to early nineteenth century) or 6 over 6 (early to mid nineteenth century).

As English books on architecture and builder's manuals became available to the colonies during the mid-eighteenth century, local builders were inspired to add more profuse, classically correct ornamentation to their designs. The ornamentation was based upon the work of the sixteenth century Italian architect, Andrea Palladio. This middle period of the Georgian Revival (1740-1790) became known as the High Georgian.

The Georgian style mansion at 2345 Washington Street (Figure 7) is the oldest house

Figure 7. Lower Falls:
2345 Washington Street, c. 1755

in Lower Falls. Probably built in 1755, the construction date is attributed to the year its first occupants, Ezra and Sarah (Pratt) Parker, were married. The design has been updated as fashion changed, a common practice. Aster Stoddard and his son-in-law, William Hoogs, who owned the house in the late eighteenth century, were both boat builders who would have had the skills to raise the house a story, or change a roof. Early records indicate that when the house was given to the Reverend Alfred Baury, Pastor of St. Mary's Church, for use as a rectory about 1822, it was extensively remodeled.

The layout and construction of this house (originally two stories) follows a typical mid-eighteenth century house plan. It has offset chimneys allowing a central hall in the interior, with rooms arranged to each side. This house has four rooms to a floor. A service wing or kitchen ell was a standard feature; one here was demolished during urban renewal when the house was turned 90° to front on Concord Street. The three-story house, a popular scheme in seaport towns, became the height of fashion during the 1770's. The hip roof was probably added at this time. The attic windows are set close to the eaves and are diminutive in size, indicating the lesser importance of the rooms. The main entrance (after 1822) is Greek Revival. Set in a recessed portico, its deep reveals are decorated with a Greek key, a motif that would gain popularity in the next decade. The entrance is framed by full sidelights and has a transom.

The half house at 1034 Chestnut Street, Upper Falls (1770-1790, Figure 8) is a less elaborate version. The house's unusual roof line, hipped at one end, suggests an intention to enlarge the house (to full size with five window openings across the front) at a later date. The pedimented door surround appears original and is characteristic of the period. The windows are set close together, appearing paired, and those on the upper story are set close to the eaves. The manner in which the cornice moulding, detailing the eaves, is pushed forward over the upper window frames is an early feature. The windows are long and narrow in proportion, with nine panes in the upper sash and six in the lower, and capped with crown mouldings, a well-finished detail.

Figure 8.
Upper Falls:
1034 Chestnut
Street, 1770-1790

Many houses built during the Federal period were derived from traditional house forms, as architectural style and ornament followed a sequence tied to socio-economic status. Generally, new architectural fashions grew less complicated as housing became more modest, until at the workingman's level, they were evoked by a single ornamental feature such as the fan light (half moon-shaped window). As the period is not characterized by a sudden change in architectural trends, it is often known as the late Georgian style.

The layout of the house at 981 Chestnut Street, Upper Falls, formerly Chester Harding's Tavern (c. 1825, Figure 9) illustrates a basic house type. Crowned by a gable roof, the two-room house with a central hall was evolved from the English hall and parlor. A service wing or kitchen ell, an indispensable part of eighteenth and early nineteenth century life, is attached to the west elevation. The projecting entrance porch was another standard feature and many houses in this neighborhood have one. Set gable end to the

Figure 9. Upper Falls: 981 Chestnut Street, c. 1825

street, this house was built to take full advantage of the sunny south exposure. Each room in the main portion of the house had a fireplace on the north, cold wall. Though the windows on the main block have been replaced with larger 2 over 2 paned sash windows, a Victorian addition, as is the polygonal bay window on the east elevation, the fan-shaped attic windows are original.

While the two or four-room houses with a central hall were more often the rule in local design, variations are not uncommon. For example, the house at **1272 Boylston Street**, Upper Falls (c. 1809, Figure 10) was built with a central chimney, somewhat unusual for this late date, since many early villagers preferred two chimneys set equidistant from the ends of the roof, usually along the colder, north wall. The paired arrangement of windows, with upper story windows set close to the eaves, and the central entrance with a fan light, a popular motif after the Revolutionary War, mark this house as Federal period. The house retains its original 6 over 6 sash windows and narrow clapboards.

Figure 10. Upper Falls: 1272 Boylston Street, c. 1809

House House and a Half Double House

Figure 11.

The Cape Cod cottage is readily identified by its story-and-a-half height and its long, pitched roof. The style first appeared on Cape Cod, where its compact design evolved as a practical response to the region's harsh environment. To resist the ocean's strong, driving winds, the house was proportioned low to the ground, while its roof was steeply pitched to shed rain and snow. Built by ship's carpenters, the native description of the house form is " a short hoist and a long peak."

In traditional house construction, the slope of the roof began just above the ceiling of the first story and the windows were framed directly under the eaves. As this framing system allowed for very little headroom in the attic, the wall height was gradually raised.

Figure 12. Upper Falls:
351-353 Elliot Street, 1830's

By the 1830's, the height of the front wall had been increased to ten feet. Though the windows appear lower, they are actually at the same level, since the ceiling height on the first floor remained unchanged. There are several standard variations of the house form ranging from the "house" one room wide to the "double house" two rooms wide (Figure 11). Size depended upon the owner's needs as all types were built simultaneously.

The basic eighteenth century Cape Cod cottage, with minor alterations, remained popular through the early nineteenth century in Upper and Lower Falls. Its straightforward, unadorned design was well suited for use as laborers' cottages and many fine examples are preserved within the Upper Falls Historic District. Built before 1831, the two-family cottage at **351-353 Elliot Street** (Figure 12) is an interesting variation of the traditional house. Two small, one room wide houses, each occupied by a family, are set end to end. The windows, with 9 over 6 paned sashes, indicate an early construction date. A recent renovation has restored the original clapboards. On Cape Cod, where cedar shakes were commonly used as exterior shingles, a fully clapboarded house was considered pretentious. Though imparting different impressions, the four-family house at **216 Elliot Street** 1830's) and the two-family house at **238-240 Elliot Street** (1830's) are Cape Cod cottages, and attest to the versatility of this one room wide house form. Interestingly, this economical form was later modified during the 1930's and in the post World War II era became known as the typical American

house. Between 1947 and 1948, the firm of self-taught architect Alfred Leavitt and Sons constructed 6,000 identical Cape Cod houses on Long Island, founding Leavittown.

During the 1830's, the Cape Cod cottage was gradually absorbed into the newly fashionable Greek Revival. Built between 1837 and 1838 for William B. Davis, a papermaker, the handsome entrance of the house at **650 Grove Street**, Lower Falls (Figure 13), reflects the new vogue. It is sidelighted, and flanked by fluted pilasters that support an entablature. The layout and framing of this house is typical Cape in form, the roof slope is long and carried down to the level of the first floor. Traditionally called a "double house," this is, in effect, a doubling of the one room wide house. The Cape Cod cottage at **970 Chestnut Street**, Upper Falls (1830's) is another transitional example. Its door surround is decorated with a geometric Greek Key pattern at the corners.

The house at **12 Summer Street**, Upper Falls (1835-1840, Figure 14) is an unusual variation. While its basic layout and framing recall the traditional Cape form, its windows are detailed with striking, Gothic style pointed arches.

Figure 13. Lower Falls: 650 Grove Street, 1837-1838

Figure 14. Upper Falls: 12 Summer Street, 1835-1840

The Greek Revival style first appeared in England where new discoveries of ancient temples had heightened the interest of both architects and scholars in Greek civilization. In this country, the Greek Revival style achieved the status of a national architecture, becoming predominant for commercial blocks, civic and religious buildings, residences, and even utilitarian structures like carriage barns.

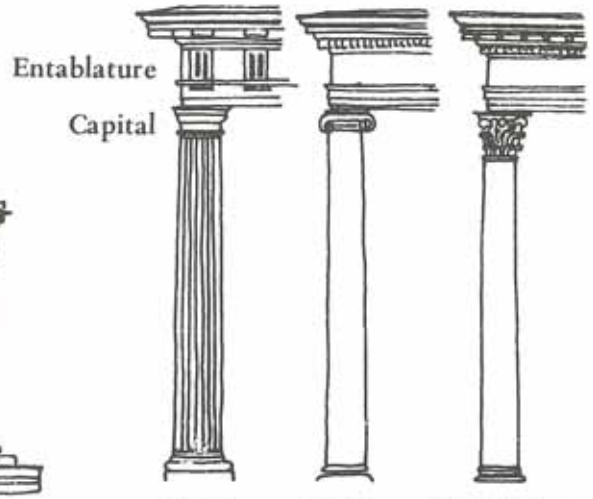
The widespread appeal of the Greek Revival style lay in the often expressed sentiment that Americans were the spiritual successors of ancient Greece. This feeling was apparent not only in the country's building stock of the pre-Civil War era, but also in the names of its newly-formed towns–Sparta, Ithaca, Athens, and Attica.

The Grecian temple (Figure 15) provided the model for the Greek Revival style, the first in a series of nineteenth century styles based on historical precedents. Its triangular front pediment and columned portico were frequently copied for residential designs. The temple's low roof was often modified to a steeper slope in response to the heavy snows of New England.

The temple form necessitated a rearrangement of the traditional orientation of the house so that its narrow side faced the street. The main entrance was moved off center and opened into a hall that ran along the side of the building. These two changes produced the front gabled/sidehall house plan that remained in vogue for the rest of the century.

Figure 15. The Parthenon (438 B.C.)

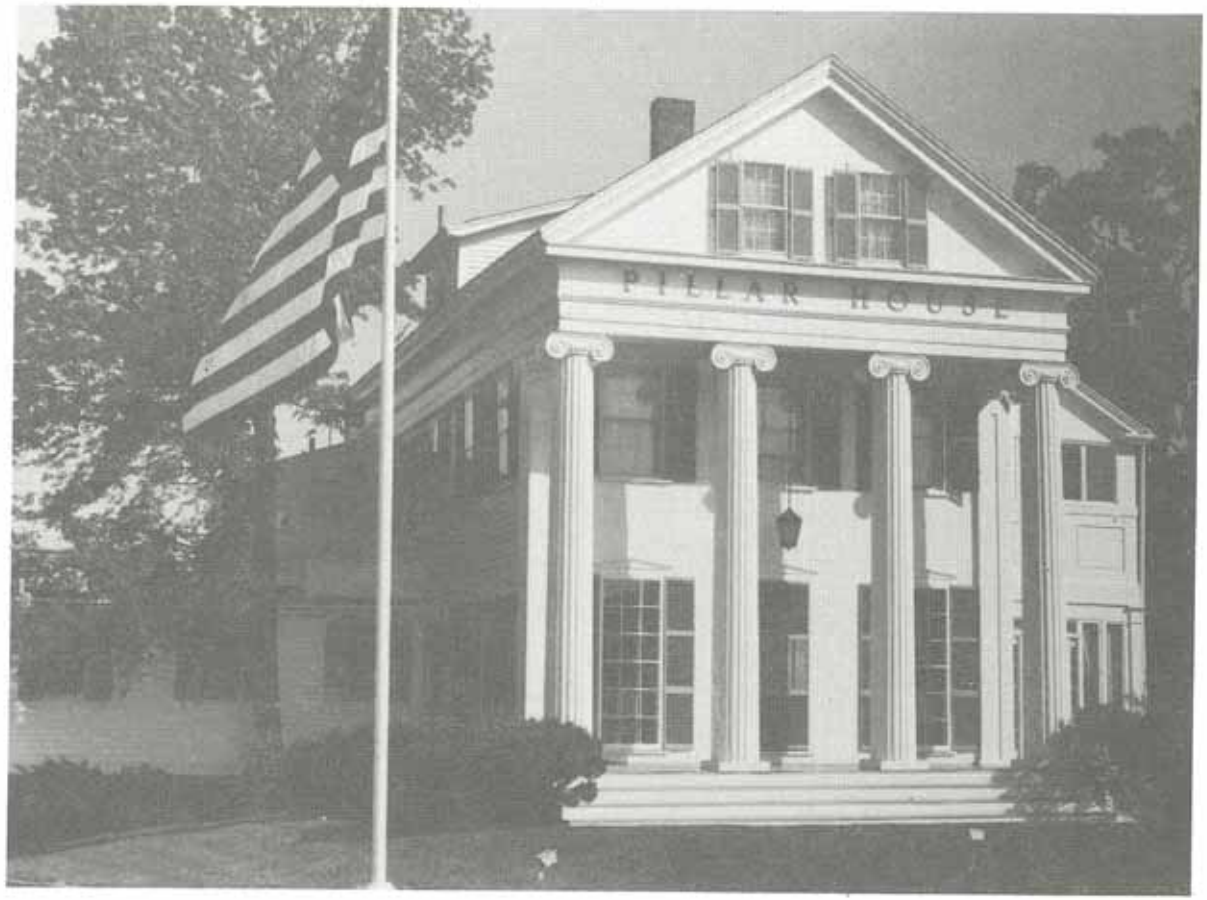
Figure 16. The Classical Orders



The column, with its three styles of capitals and surmounting entablature (Figure 16) was a favored form of ornament in the Greek Revival period. Both column and capital were often supplied by large lumber companies rather than handmade by the local carpenter. A less expensive version of the column, the pilaster, could be easily constructed by nailing wide vertical boards to corners and door frames and tacking on a few mouldings to suggest a capital. Similarly, a series of flat boards could be used to reproduce the classical entablature at the doorway and roofline.

The Grecian Temple form, with its row of porch columns, was used for more elaborate Greek Revival style residences. The Allen C. Curtis house, now the Pillar House Restaurant at 26 Quinobequin Road, Lower Falls (Figure 17) is an exceptional example. The stately mansion was built during the summer of 1845 at a cost of $3,575.00 by William Lyon, a local housewright. The tetrastyle (four columned) portico with its full pediment is the focus of the design. The columns are crowned with Ionic capitals as are the anta pilasters which frame the structure's corners. In less ambitious versions of the Greek Revival style, the monumental porch columns were reduced to supporting a single-story porch, and, in very simple houses, omitted altogether. The facade is flushboarded, a technique inspired by the masonry construction of the Greek originals, while the side elevations are covered by clapboards.

Figure 17. Lower Falls: 26 Quinobequin Road, 1845



The one-and-a-half-story house at 83 High Street, Upper Falls (1830's, Figure 18) reveals how the Greek Revival style was miniaturized for smaller dwellings. The pedimented gable roof features a classical entablature comprised of cornice, frieze and architrave and is supported by fluted Doric columns. The entrance is offset on the gable end, creating a side hall. The front first-story windows were originally floor-to-ceiling and are framed by moulded surrounds with corner blocks as is the side-lighted entrance. The kitchen is not integrated into the main portion of the building, but is instead located in an ell to the structure's rear.

A local variation of the Greek Revival style places the pediment at the side of the building. One of the city's best examples is the William Curtis House (Figure 19) at 2330 Washington Street, Lower Falls. Constructed during the spring of 1839, this house is also the work of William Lyon. Wide, paneled pilasters, a typical motif of the Greek Revival period, define the corners of the building, and support a classical entablature which forms a continuous band below the eaves of the main part of the house. The central entrance has a transom and full side lights, and is sheltered by a portico with sturdy, fluted Doric column supports.

Figure 18. Upper Falls: 83 High Street, 1830's

Figure 19. Lower Falls: 2330 Washington Street, 1839

The Middle Ages provided another source for nineteenth century house styles. Small, vaguely Gothic garden structures began to appear on English country estates in the late 1700's, and by the early nineteenth century, medieval designs had been introduced for elaborate residences. The pointed arches, stained glass, and soaring towers of medieval cathedrals were suitable for churches, but the Gothic influence was more tenuous in domestic architecture. Confined to a few specifically medieval details, Gothic Revival house design, especially in this country, was more closely connected with the fanciful garden cottages of the late eighteenth century than the monuments of the medieval period.

The American public had acquired an interest in the Middle Ages through popular historical novels with medieval settings such as Sir Walter Scott's Waverley series. It was not, however, until a landscape designer named Andrew Jackson Downing promoted the Gothic Revival style that this interest was focused on "medieval" architecture. In his popular book *The Architecture of Country Houses*, Downing described the picturesque Gothic style: "It must not look all new and sunny, but show secluded shadowy corners. There must be nooks about it, where one would love to linger; windows where one can enjoy the quiet landscape leisurely; cozy rooms where all domestic fireside joys are invited to dwell." Downing's widely read articles and books were accompanied by sample house designs and plans for picturesque suburban cottages and country estates (Figure 20).

The Gothic Revival style, characterized by wings that projected in several directions, complex roofs, and ornate wooden detail, marked a departure from the compact house forms, restrained decoration, and rules of symmetry imposed in classical styles such as the Greek Revival. It initiated the picturesque fashion which was to encompass several distinct Victorian architectural styles.

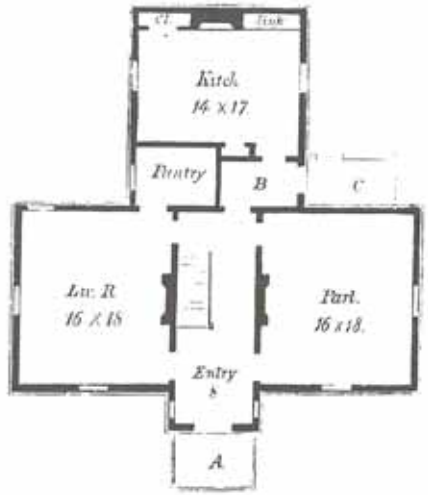


Figure 20. Design VII
The Architecture of Country Houses (1850)

Although it became a relatively popular style elsewhere, Gothic Revival houses were rare in Newton. The residence at **656 Grove Street** (1845, Figure 21) is one of few examples in Lower Falls. The central feature of this design is the fanciful jig sawn trim or "gingerbread" that embellishes the eaves, verandah, and side porch. Louvered shutters frame the windows as well as the offset, double-door entrance.

The unusual pointed or Gothic arched windows on the facade and side elevations of the small house at **6 Summer Street**, Upper Falls (1835-1840, Figure 22) are an eye-catching feature. The effect is enhanced by dark, louvered shutters which are fastened shut in the arched section, and opened below. A cornice moulding with a wide architrave section crowns the central entrance which is also sidelighted while an Italianate style bracketed hood shelters an entrance on the rear ell.

Figure 21. Lower Falls: 656 Grove Street, 1845

Figure 22. Upper Falls: 6 Summer Street, 1835-1840

The historical origins of the Italianate style can be traced to the rural architecture of northern Italy. The style was first introduced in England, again under the impetus for picturesque house designs. Its popularity was probably related to a contemporary interest in seventeenth century landscape paintings, many of which included romantic Italian country villas.

The Italianate style arrived in this country during the early 1840's. Under various names including the Tuscan, Lombard, Bracketed, and Italian Villa styles, it was promoted by Andrew Jackson Downing and his contemporaries as an appropriate style for a scenic rural landscape.

The charming, asymmetrical house at 68 High Street, Upper Falls (1876, Figure 23) is one of few examples of the Italianate style in Upper and Lower Falls. Striving to avoid the box-like rectangularity associated with the earlier Greek Revival style, local builders often employed "L" or cross-shaped plans in their house designs for a more complicated appearance. Originally "L" shaped in plan, the facade of this house was squared off between 1907-1910. The door and window trim was carefully retained, making this enlargement difficult to discern. The gable roof features a projecting cornice with short gable returns, both supported by paired brackets, a signature of the style. Heavy lintels crown the 2 over 2 sash windows, and are carried by small, carved bracket supports on the first story. The paneled, double-door entrance is sheltered by an ornate, bracketed entrance porch.

By the mid-1800's the front porch had become an indispensable part of Victorian life. Fashioned into a square shape by nailing together several thin boards, porch posts were generally much plainer in the Italianate era

Figure 23. Upper Falls: 68 High Street, 1876

than in later Victorian styles, although, as evidenced by the ornate porch at 68 High Street, they, too succumbed to the fashion for fanciful forms.

The bay window was a design element popularized during the Italianate period. The house at 1198 Chestnut Street, Upper Falls (about 1870, Figure 24) features a rectangular bay window on its main facade. In practical terms, the bay window increased the amount of light and ventilation to interior rooms and added visual complexity to the exterior form. The rectangular bay is given full architectural treatment with a projecting cornice punctuated with pendant brackets. Round arched windows are a characteristic Italianate feature, and light the attic space of this house. The front verandah is a later addition.

Figure 24. Upper Falls: 1198 Chestnut Street, about 1870

Regardless of the derivation of a building's decorative ornament, it is Mansard in style if it has a mansard roof. Essentially a hybrid form, the style borrowed round-arched windows, bracketing, boxed porch posts, and its interior floor plans from the Italianate style.

The mansard roof was imported from France where it had a major revival in the mid-nineteenth century. Named for Francois Mansart, a seventeenth century architect, "la mansarde" derived from a provincial French roof form. The word itself means attic in France. The mansard reappeared during the Second Empire under Napoleon III (1852-1870). In this country the Mansard style was often referred to as "Second Empire," a designation that applied primarily to monumental structures of the 1860's and 1870's, such as Boston's old City Hall. Many mansard-roofed public buildings were erected during the post-Civil War administration of Ulysses S. Grant, giving rise to another name for the style, the "General Grant."

While the Mansard style enjoyed wide popularity in several of Newton's suburban communities, growth in the industrial villages slowed during the mid-century; thus, only a small sampling of houses exhibit the style. Local builders adopted the new roof in the early 1860's and continued to build mansard residences until the early 1880's. The mansard roof was appreciated by the Victorian public as a new, distinctive form, but its chief appeal lay in its practicality. The roof's height allowed more headroom in the attic, adding an extra usable floor to many buildings. In some instances, a new mansard roof was added to an older house for this specific purpose.

This boxy, two-and-a-half-story house at **1173 Chestnut Street**, Upper Falls (1869, Figure 25), still occupies the extensive grounds that were once typical of the wealthy mill owners. A pronounced curve to the lower roof slope (originally slate) and ornamented dormers formed a popular combination about the time of the Civil War. The entablature at the eaves is richly embellished with a paneled frieze, cable

Figure 25. Upper Falls: 1173 Chestnut Street, 1869

moulding (a Romanesque moulding imitating a twisted cord), and Italianate style pendant brackets. Mansard style porches are usually elaborately bracketed, as this example is. Its support shafts are also edged with cable moulding.

The Mansard cottage is a charming variation of the style. The house at **1076 Chestnut Street**, Upper Falls (1873, Figure 26), is a distinctive example. The lower slope of its bellcast mansard roof is embellished with bands of fish-scale shingles and contains shallow round arched attic windows framed with bellcast surrounds. Above the dormers, a denticular cornice emphasizes the intersection of the mansard's two slopes. Paired pendant brackets ornament the building's eaves and support a hood over the offset, double-door entrance. A newer entrance has been added adjacent to the original. The polygonal corner tower was probably added in the 1880's when the fashion for towers was at its height.

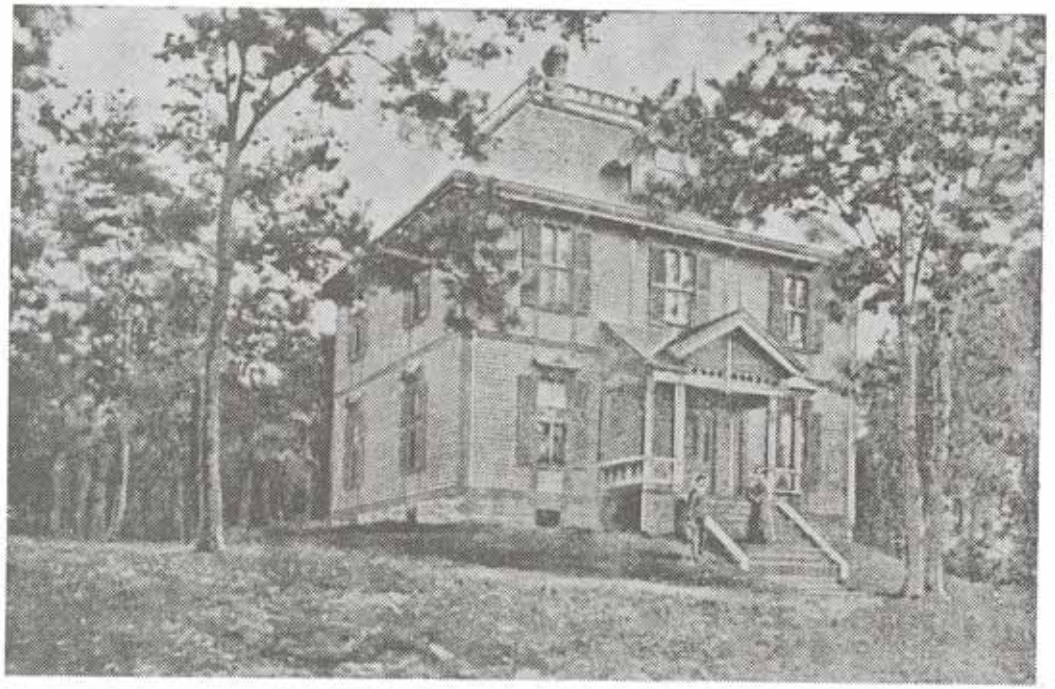
Figure 26. Upper Falls: 1076 Chestnut Street, 1869

Development slowed in both Upper and Lower Falls during the post Civil War years. The cotton mills at Upper Falls closed in 1883, unable to compete with the immense factories and sophisticated corporations at Lowell and Fall River. When the mills were outfitted for the manufacture of silk a few years later, the population had stabilized and laborers were re-employed. At the Lower Falls, several of the paper companies were forced to close during this period, unable to compete with the cheaper grades of paper made from wood pulp. The villages' architecture, like a barometer of change, reflects prosperous times as well as recession. There were few Stick style houses constructed.

The Stick style is a more picturesque contemporary of the Mansard and Italianate styles. The central feature of the Stick style is a network of thin, flat boards applied over a clapboard wall. Stickwork, as this decorative system is called, is laid in a pattern of horizontals, verticals and diagonals that suggests the building's interior framing, although it serves no structural function. Thus, wall areas are given a new visual importance; they are recognized as a design element with the potential for energetic articulation. This theme was taken to its inventive extreme during the ensuing Queen Anne period.

The well-preserved house at **1190 Boylston Street**, Upper Falls (1881, Figure 27) illustrates the way in which stylistic categories often overlap. The eclectic design combines a French mansard roof with elaborate stick style ornament, an effective combination. The steep, lower roof slope, and the system of stickwork characterized by window surrounds joined by vertical boards, and the horizontal band between floor levels, emphasize the house's vertical proportions. Brackets embellish the eaves and support peaked hoods over the first story windows. (The peaked sections pictured have evidently been removed.) The entrance porch detail, though difficult to see behind the trees and vegetation, is outstanding. Decorated, chamfered posts support a gabled entrance porch that is romanticized with a jig sawn valence, bargeboards at its eaves, and a pinnacle at its peak. A dormer on the facade is also embellished with bargeboards and a pinnacle

Figure 27. Upper Falls: 1190 Boylston Street, 1881



echoing this theme. The Gothic style pointed arch balustrade on the porch and at the roof's upper slope, lends a medieval flavor to the design.

Distinctively remodeled in the Stick style about 1880, and painted to enhance the effect, the house at **300 Elliot Street**, Upper Falls (c. 1840, Figure 28) is eyecatching. The corner tower with its pyramidal-shaped roof crowned with a pinnacle lends a strong vertical accent to the design. Bargeboards edge the steeply pitched dormers. The display of stickwork is modest, and is confined to a horizontal band between the floor levels and as vertical bands extending the line of the window surrounds. An original mixture of cut shingles and clapboards accents several wall areas. The verandah with its bracketed, turned posts and textured wall fabric is a conspicuous feature.

A cupola-crowned carriage barn stands to the rear of **300 Elliot Street**. Popular in Newton during the Italianate period, suburban carriage barns usually contained stalls for two or three horses, room for several carriages, and a grain storage loft under the roof's eaves.

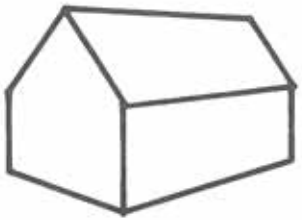
Figure 28. Upper Falls: 300 Elliot Street, 1840 remodeled 1880's

The energy and inventiveness of the Queen Anne style gave full expression to the picturesque forms that had been an undercurrent in American architecture since the 1840's. Most often, Queen Anne designs were eclectic, drawing inspiration from several sources. For models, architects relied on contemporary British decorative arts, medieval cottages and town houses, and, later in the style's popularity, American colonial architecture. The style's name, coined in England to describe a series of quasi-medieval manor houses built in the mid-1800's, was taken with no discernable logic from the reign of Queen Anne (1702-1714). It received widespread popularity in this country at the 1876 Centennial Exposition in Philadelphia through the British pavilions, whose Queen Anne design caught the imagination of the American public. Architectural pattern books featuring the style were rushed into print, and within four years after the Centennial many new suburban homes appeared with all the trappings of the latest fashion.

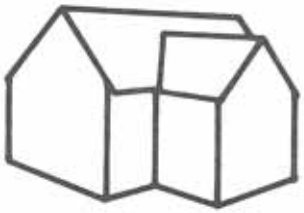
Queen Anne style houses are not compact. Rooms spill outward from a central core in no set pattern, exterior walls project at several intervals, and the roofline is correspondingly complex. Attached are all manner of porches, balconies and bay windows. Designers played on the contrast of materials as well as forms, often using brick, stone, clapboards, plain or patterned wood shingles, stucco, and intricate moulded plaster or terra cotta panels within a single house.

The Queen Anne style first appeared in Upper and Lower Falls in the late 1870's. The few examples are modest in scale and range from inexpensive side hall plan houses like that at **56 Rockland Place**, Upper Falls (1878) to comfortable builder-designed houses such as **126 Cornell Street**, Lower Falls (1889, Figure 29). Bay and dormer projections and a striking two-story oriel window (east face) that corresponds to an interior staircase, add complexity to this house's rectangular form. Though clapboards are the basic wall material, the design is dressed up with moulded belt-coursing between the first and second stories, and intricately cut shingle bands accenting the upper story and in the gables. The design of this house is attributed to Peter C. Baker, a local carpenter who was also a long-time occupant.

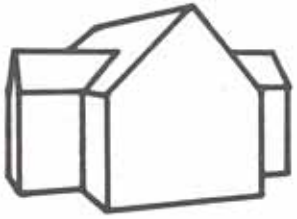
Figure 29.
Lower Falls:
126 Cornell Street
Street, 1889



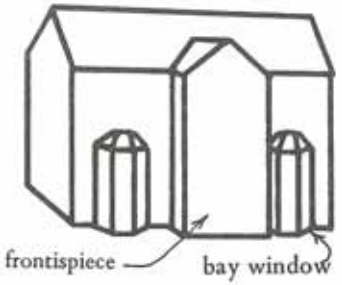
The overall form of a house is most often expressed in the simple geometry of a rectangular or square block.



This basic shape can be made more complex by adding a secondary form, or wing, to the sides or back of the house.



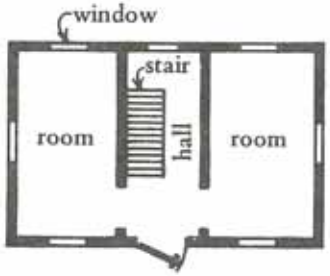
When there is more than a single wing, the arrangement of forms can be symmetrical, with balancing wings on either side of the main block.



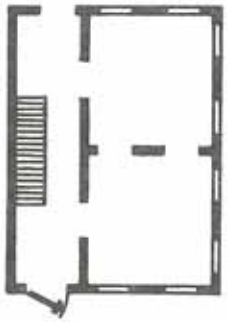
Another method of arriving at a more involved house form is to add shallow projections such as a center frontispiece or bay windows to the main block. These are placed symmetrically in the example.

By the mid-1800's houses were designed with asymmetrical forms of varying sizes and shapes. Favored in the Victorian period, these complex designs were called "picturesque" because of their irregular, dramatic silhouettes.

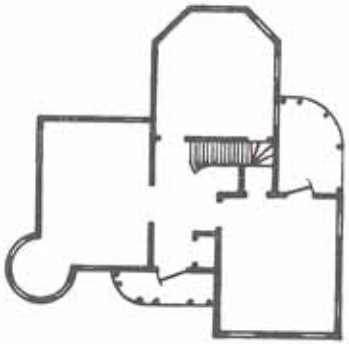
A plan is essentially a map of a building, drawn looking from above as if the walls had been sliced through. It shows the arragnement of the rooms, the location of the stairway and hall, and the placement of the doors and windows.



In general, boxy buildings with geometrical shapes will have simple plans. Shown above is a typical first-floor room arrangement for houses of this type. This plan is symmetrical, with a central hall and rooms on each side.



The side-hall plan was adopted for the long, narrow houses of the mid-1800's. Because of the short front walls in these buildings, the stairhall was moved from a center position to the side, with the two main first-floor rooms placed back-to-back.



In picturesque designs, and in large complex buildings, room shape and size varies and the interior spaces follow a complicated, asymmetrical pattern. The internal room divisions can rarely be guessed from looking at the exterior and it is easier to become lost once inside.

Five roof types were standard in the nineteenth century: gable, jerkin, gambrel, hip and mansard. Wood shingles had been the most common roof covering early in the 1800's, but by mid-century slate came into general use.

End-gabled Front-gabled

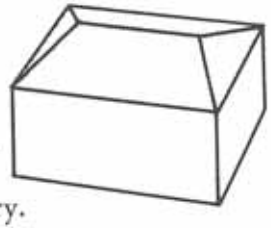
GABLE ROOFS

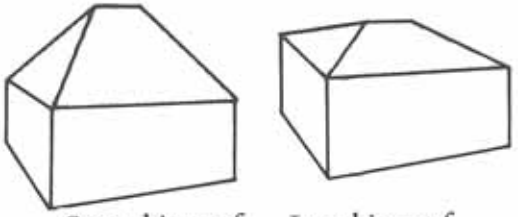
Popular throughout the nineteenth century and very common, the gable roof has two slopes that meet at a peak and a gable at each end. The position of the gables is of major importance to a building's design. If the gable appears at the sides of a house, it is said to be end-gabled.

Front-gabled houses had a quite different appearance. They were used frequently with the side-hall plan.

HIP ROOFS

The hip roof has four slopes and no gables. It was used in the early 1800's and reappeared at the end of the century.





Steep hip roof Low hip roof

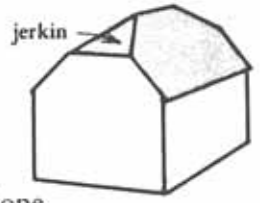
The proportions as well as the form of a roof can change the character of a house. A prominent, steep roof will dominate a design, just as a low roof can assume much less importance in relation to the rest of the building.

MANSARD ROOF

A two-part hip roof, the mansard often has curving slopes. Its heyday was between 1860 and 1880, during the so-called Mansard style.

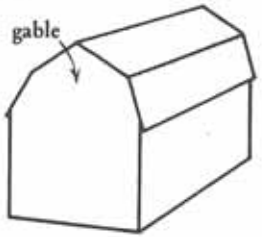
JERKIN ROOF

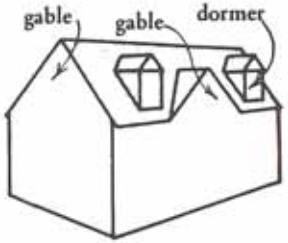
The jerkin roof is closely related to the gable form, but has a triangular, backward slanting front and rear slope.



GAMBREL ROOF

Barnlike in shape, the gambrel roof has two slopes, broken into double sections, and gables. It was popular during the late 1800's.





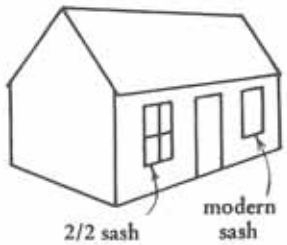
The complexity of a roof corresponds to the grouping of forms in the body of the house. A picturesque house with a complex plan will also have a complex roofline. Decorative gables, or large triangular areas similar to the ends of a two-sloped roof, and dormers can add to the complexity of the roof shape.

The ratio of solids to voids, or the extent of the blank, neutral wall area between the punched-in window openings, makes a difference in the appearance of a house.

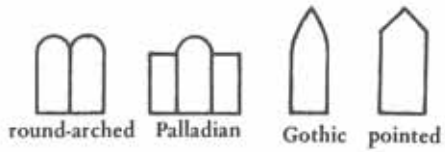
In the example (right), there are four windows grouped symmetrically on either side of the door. The number of windows allows for only a small section of wall space between each opening.

An asymmetrical arrangement of two windows on one side, with a single window flanking the door, illustrates a variation in window/wall ratio that produces a quite different effect.

Size can also govern the appearance of a building's facade. In this illustration, the window at the right assumes much more importance in this design because its opening is larger.



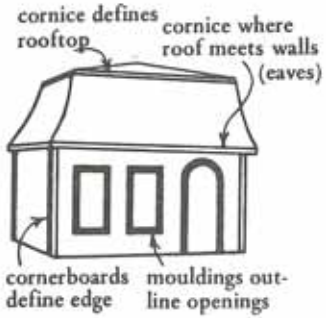
Windows in the nineteenth century held standard sizes of glass, kept in place by narrow strips of wood, or sash bars. Until the 1840's six panes in each section of the window were used (6/6 sash), with 2/2 division until the end of the nineteenth century, when modern 1/1 sash was introduced. The number of sash bars and window panes makes an impact on the overall effect of the design, as can be seen in the contrast between the 2/2 sash of the mid-1800's and the modern undivided window with plate glass.

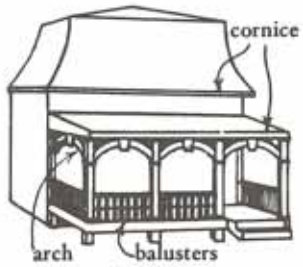


In the nineteenth century windows assumed several shapes in addition to the standard rectangular form. Often displayed in a prominent position, such as above the main entrance, these windows were an important decorative feature. They were used sparingly because of the time and expense involved in special framing for the opening and in cutting the glass.

ORNAMENTS

Ornament is an essential part of a building's design, not just an afterthought. The type and amount of trim was dictated by a building's architectural style, as well as by its cost, size and pretensions.

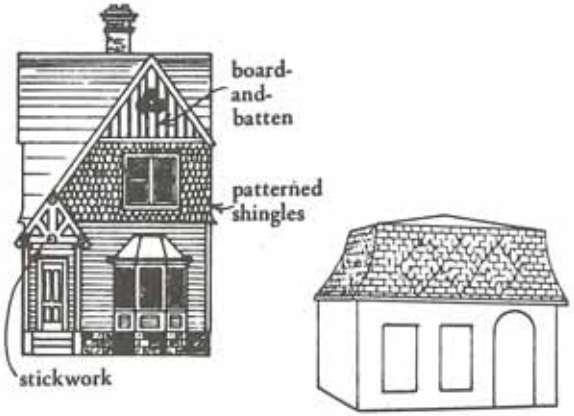




Ornament can be used in several ways. For example, it defines the meeting points between the walls, roof area and openings. Decorative trim at these key locations includes the cornice at the eaves, cornerboards and mouldings at the doors and windows.

Decoration is also concentrated at a building's most important design features. As an extension of the facade, the porch played an essential role in nineteenth century houses, as well as in the lifestyle of their occupants. In modest houses the porch often received the only display of fancy wooden detail. Porches were usually ornamented with curving posts, wooden arches, and railings with rows of balusters.

Ornate trim was often applied as the final, individualistic signature to a design. This ornament is what sets nineteenth century architecture apart from the modern tract house. Common forms are bargeboards, or narrow decorative borders along the roof eaves, brackets, and window caps.



Decorative wall coverings were sometimes applied to the exterior of a building to enliven this essentially neutral area. The repetitive rows of clapboards perform this function to some extent, but elaborate decoration such as patterned wood shingles, long flat boards laid in various designs (stickwork) and vertical board-and-batten siding play a more crucial role in the design.

In slate-covered roofs the individual slates were cut into decorative shapes and laid in intricate patterns, in much the same manner as wood shingles. Patterned slate became a common feature of the mansard roof and sometimes appeared in several colors.

SUMMARY

The selective, deliberate process of combining materials, forms, proportions and decoration produced an architectural statement that reflected a building's times, its occupants and its designer. Easily perceived at the time the house was built, this composite message is often not as clear to its modern readers.

Remodeling or repairing an older house requires a great deal of care and should respect the basic principles that went into its design. *Home Improvement and Repair Standards*, a guide published by the Newton Planning and Development Department and the Newton Upper Falls Historic District Commission, offers extensive advice for remodeling older homes.

In general, original materials should be conserved wherever possible. Often selective patchwork will serve perfectly well, especially in the case of decorative trim, deteriorated shingles or broken slates.

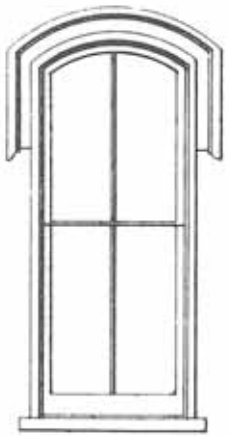
Let the original building material be the guide in selecting replacement parts. Wood was used in the vast majority of older houses. It has special properties entirely different from brick, composition stone, shiny metals and synthetics.

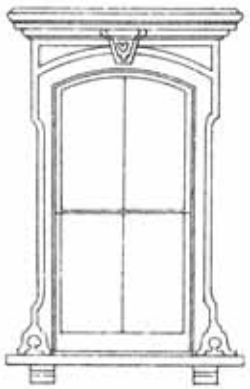
Windows

The number of windows, as well as their dimensions, sets up a deliberate, balanced juxtaposition of openings and solid wall areas, which should be retained, at least on the front part of the house. The size of the panes and sash bar divisions of nineteenth century windows also makes an impact on the overall effect of the design.

Walls

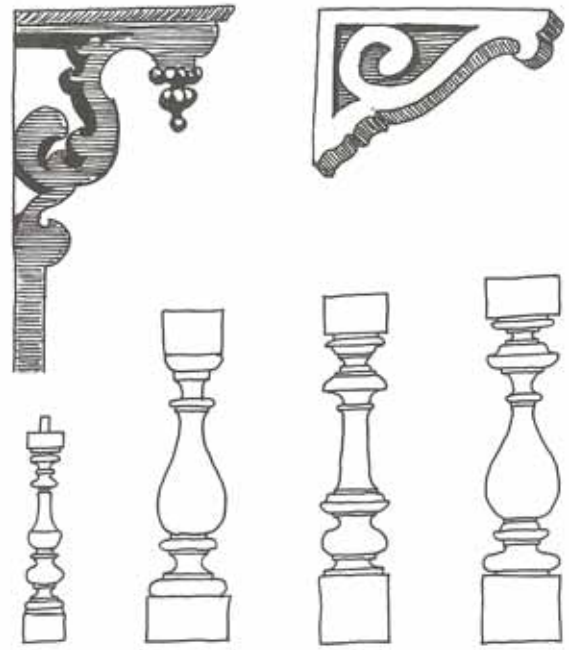
The type of wall covering is important to a building's appearance. Clapboards, the most popular choice of the nineteenth century, had a thin, three- to five-inch exposure. When laid in a repetitive horizontal pattern, the clapboards established a specific texture to the wall surface. Eight-inch sizes of aluminum and vinyl synthetic siding destroy this rhythm, alter the wall texture and significantly change the character of the house. Wood shingles give a building an informal appearance, especially when they are stained rather than painted. Patterned shingles and decorative stickwork were applied as part of a complex design scheme and should be kept if at all possible.





Decorative Trim

Mouldings and other trim that outline the openings, corners, and roof areas of the house are absolutely essential to a building's character. Small-scale trim like brackets and "gingerbread" sets a particular house apart from its neighbors and as such, is rarely an expendable part of the design. This ornamental detail was particularly important in the Victorian period.



Color

Color and style were closely tied in nineteenth century architecture. Historically, early nineteenth century houses were painted white with dark shutters; later houses (1840-1890) had strong but dusky colors (dark red and green-/grey/olive/tan and ochre) and contrasting trim in lighter or darker tones. Large ornate buildings of the 1880's were painted with up to eight different colors. During the last decade of the nineteenth century, pastel shades (beige/light yellow/light green/light blue) with dark shutter colors and white trim came into vogue.

Repainting a nineteenth century house in an appropriate color scheme may pay large dividends by immediately recapturing its original character. To assist interested homeowners in choosing paint, a guide titled *Paint Colors for Newton's Victorian Homes* is available for reference at the Jackson Homestead, Newton's historical house museum. The guide, based on a pamphlet prepared by the Cambridge Historical Commission, identifies the various nineteenth century architectural styles and lists color combinations appropriate for each. Pattern books and manufacturer's publications of the period form the basis for the recommended combinations. The guide is illustrated with paint chips and representative houses of each style.

One general rule with regard to color is that dark-shaded materials emphasize the roof area of the house, while light or variegated asphalt shingles tend to make the roof disappear. In all architectural styles after 1840, the roof was meant to play a prominent role and therefore should be dark in color.

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NEWTON'S 19th CENTURY ARCHITECTURE: NEWTON UPPER AND LOWER FALLS

Text	Deborah Shea
Guide to House Forms, Remodeling and Repairing	Kathlyn Hatch
Drawings	Deborah Shea, Bruce Fernald
Photographs	Courtesy of the Jackson Homestead, Newton Free Library, Kenneth Newcomb, Eleanor C. Bishop, Deborah Shea
Layout	Nancy L. Weston

NEWTON LOWER FALLS WALKING TOUR

Text	Deborah Shea
Photographs	Courtesy of the Jackson Homestead
Layout	Nancy L. Weston

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