

## CHAPTER XVII.

MILLS, FACTORIES, AND OTHER MANUFACTORIES WHERE WATER AND OTHER POWER HAS BEEN OR IS USED – SOUHEGAN COTTON MILL -- HILLSBOROUGH MILLS – BERRY'S MILL – KENDALL AND WILKINS MILL – HARTSHORN'S MILL – C. H. V. SMITH'S MANUFACTORY – FURNITURE FACTORY OF FERENCH AND HEALD – BARLETT'S HOSIERY MILL – McLANE'S POST-OFFICE FURNITURE MANUFACTORY – THE FOSTER TANNERY – THE BOOT & SHOE BUSINESS – THE MILFORD PLOW COMPANY – THE IRON FOUNDRY BUSINESS FORMERLY CARRIED ON – MILFORD GRANITE QUARRIES.

As has been stated in another connection, the first water wheel in town was put in motion on the north side of the river, at what is now the Berry mill, just below the stone bridge, in the village. John Shepherd built his mill upon land given him for that purpose in 1741, and from that time to the present, a sawmill has been maintained at that point. The mill yard, in early times, received the huge trunks of the native pines, the monarchs of the primeval forest, and logs of trees of almost every name known in New Hampshire. The dimensions of round lumber brought to the mill has gradually decreased, until now a stick of more than eighteen inches in diameter is seldom seen. Shepherd also established a grist-mill alongside his saw-mill, and the two were known far and wide as Shepherd's mills. For several years parties came from the north and west a long distance with grists of corn, rye, and other grains. The original grist-mill was discontinued many years ago.

For some time, wool-carding was carried on in connection with these mills, on the north side of the river. The sawmill is now owned and operated by Smith Berry, who has recently (1896) restored the grist-mill.

The Souhegan river, for nearly fifty years, was checked in its flow by no other dam within the limits of the town. A dam was thrown across the river a little below the present county bridge, and a sawmill erected by Jonathan Jones the year before the town was incorporated. This mill stood but a few years, when it was carried away at a time when the county bridge was badly damaged. No other attempt was made to build a dam at this place until the year 1834, when Putnam Tyler erected a dam and sawmill upon this privilege. January 31, 1835, before Tyler's mill was entirely completed, a freshet carried off the county bridge, with the mill and dam. The bridge was rebuilt the following summer by the town.

It may be remarked, in this connection, that the county bridge, as built by the county in 1789, crossed the river some fifteen rods below the location of the present bridge, and that Jones's and Tyler's mills were upon the south side of the river. No millwright has since attempted to dam this impetuous stream, and to utilize it in mills located as were Jones's and Tyler's. Years after, the Pine Valley Company, now the Hillsborough mills, taking the water out of the river at a point considerably above the old dam, and canaling it on the north side of the river to a protected location, have made profitable use of this water power, and a successful business has been conducted for many years. Allusion will be made to these mills in another connection. When the bridge, dam, and mill were carried away in 1835, the dam at Shepherd's mill was seriously injured. Were it not for the widely-expanding intervals above the dam, and the stow bridge, it would be well-nigh impossible to maintain either of these structures during the annual freshets.

The Souhegan is reinforced in its passage through the town by four brooks, two entering the main stream from the north, and two from the south. The larger of the two southern affluents enters the river in the village, and is the source of considerable water power. The brook is called, in the deed of Joseph Blanchard to John Burns, Nonendum brook, but in most deeds which I have examined, it is called the Great brook. There is a tradition in the Burns family that when their emigrant ancestor, John Burns, moved his family and household effects, about 1744, from Hudson to his Blanchard purchase, the journey was made by water, by way of the Merrimack river, the Souhegan river, and Nonendum brook.

A sawmill was built near the mouth of Great brook, by William Crosby and others. It is not certain what year this mill was built, but in a deed dated December 1, 1793, the grantor speaks of the sawmill at the mouth of Great brook, as recently erected by himself and others. Very soon after Crosby and his associates built this sawmill in the village, a privilege was granted to Jonathan Buxton, blacksmith, to take water from the dam at the west end to operate a trip-hammer, which for many years was in operation at the old Buxton or Turner blacksmith shop.

Benjamin French, who had purchased of Crosby what is now the High School house lot and adjoining lands, soon after the erection of a sawmill, erected a dam of modest height very near the mouth of the brook to furnish power for a bark-mill in connection with his tannery, which he successfully carried on until succeeded by his son, Josiah, who in turn was succeeded by his son, Francis J. The Great brook receives, about a mile above its mouth, two smaller streams.

Above the second tributary is situated the sawmill now owned by Dow & Gutterson. It is not known when this privilege was first utilized. A sawmill was built at this place before 1787, by Capt. Josiah Crosby, who in that year deeded an undivided interest to Josiah Osgood, a prominent citizen of the town, from whom the mill took its name, "The Osgood Mill." For more than a hundred years this sawmill has been continuously maintained. And for a considerable portion of the time a grist-mill has been in operation in connection with it. A cider-mill is now operated at this privilege. Some two miles above the Osgood mill, on the same stream, Samuel Wordsworth and Edmund Green had a sawmill in full operation thirty years ago, but it is not now in use. On the most easterly branch of the Great brook, there was at an early day, a small water privilege and mill upon the farm now owned by Dea. W. P. Colburn.

The Johnson sawmill was located near the Nathaniel Coggin farm, on the second tributary to Great brook, and was a mill of considerable consequence. Still further up, upon the same tributary was a shop with a trip-hammer, owned and occupied by the late Martin W. Hall, before he established himself as a blacksmith in the old shop near the old burying-ground in the village.

The second tributary to the waters of the Souhegan, from the south and upon the banks of which, about forty rods from its mouth, Benjamin Hopkins built his bullet-proof cabin, and which crosses the highway near the brick mansion house built by the late Joseph Tucker, was dammed by Hopkins at some time prior to 1764, and a sawmill built a little west of the barn on the Tucker farm. How much business Hopkins did at this mill, the second built in town, cannot now be told. It is certain, however, that he had a mill-pond of considerable size, for the old Monson records for the year 1764, have the following article in the warrant for the annual town meeting: "to see if the town would be at the charge of making another road where Mr. Benjamin Hopkins has flowed the town road, or take a course of law with him for damages."

Remains of the old Hopkins dam are still visible.

A little more than a mile above the Hopkins dam, on the same brook, which in some ancient records is called "White Hall Brook," and near the point where the highway from Jones's crossing to the residence of the late Daniel Smith, crosses the brook, the late Reuben Hutchinson owned and operated a sawmill for a number of years. It was in active operation forty years ago, but soon after ceased to be used. Still farther up the stream and near the Wilton line, was located the Gutterson sawmill. Business was here carried on for many years. In addition to the mill privileges already named upon the south side of the river, there was an ancient sawmill in the extreme south-western part of the town, upon a stream which emptied into Potanapus pond in Brookline. This mill was known as the "Spalding Sawmill."

Passing to the north side of the river on our way to Mont Vernon, we cross a small brook upon which is located the sawmill of Frank Hartshorn. Mr. Hartshorn now does considerable business in sawing and manufacturing lumber. It is an old mill site, but the power is not large and has to be supplemented with steam.

A short distance down this brook, at the point where it crosses the highway from the Porter Wheeler place to the Abel Hutchinson farm, some forty years ago a dam was built and a building erected to be used for the manufacture of some parts of piano cases. The mill was started, but nothing of my consequence was done and the building is now in ruins. This brook has been known as the Butters brook. Passing up the river road on the northerly side we cross the second brook, flowing into the Souhegan above the village. A few rods up the stream known as Purgatory brook and near the residence of the late D. Pierson, was located the old Pierson sawmill, which for a long time was operated by the Pierson family, but is now abandoned.

For some time previous to his death, the late Samuel Goss had a shingle and clapboard mill on the small brook emptying into the river near the Catholic church.

In the year 1789, William Crosby, who owned one hundred acres and more in what is now the compact part of the village, deeded to Ebenezer Taylor, a strip of land from the stone bridge down the river upon the south side, sufficiently far to include what is now the manufacturing plant of Morse, Kaley & Co., and that of John McLane. Crosby's deed included not only the land but the right to use one half of the water in the stream.

Several kinds of business were carried on to a limited extent at the south end of the old Shepard dam. It was not until the year 1810, when a company was incorporated under the name of The Cotton and Woollen Manufacturing Company, having secured the title to the land and water power which Taylor purchased of Crosby, commenced in earnest the manufacture of cotton fabrics. A mill was built in 1813, and the manufacture of cotton yarn was commenced in 1814.

Some years later, the proprietors of the old cotton mill, wishing to utilize the privilege which they owned below the Shepard dam, erected an inexpensive dam at a point in the river now spanned by the foot-bridge. The water was carried by a short canal to a wheel pit upon the plant now owned by John McLane, and the water was used, among other purposes, to propel a grist mill. Many manufacturing interests have been accommodated at this privilege. In course of time, the dam first built, was abandoned, and a wooden dam erected farther down the river, which in turn was followed by the building of the present stone dam, by Putnam & Chase, in 1846.

I have said on page eleven of this history that the building of the stone dam caused the water to flow back and corer the old shallow ford way to such a degree that it is not now easy to conceive of it as the location of a passageway across the river. I did not intend to exclude the information that an older wooden dam of less height had before the erection of the stone dam, in a large measure produced the same effect. Upon the building of the Souhegan Manufacturing Company's mill the control of the water power at the stone dam passed into the hands of that company, excepting that the old plant retained the right to use the water not needed at the Souhegan mill. By means of a long canal, an extensive power was obtained in the wheel pit of the Souhegan Manufacturing Company.

A few years ago the building on Nashua street, now owned by C. H. V. Smith, some distance below the stone dam, was erected, a dam built, a wheel put in and connected with shafting in the shop. By this arrangement some power was obtained, but water power at this point has been abandoned and steam substituted, and the river now flows unvexed by this particular dam. It thus appears that at least twenty-two places, mills of more or less consequence have at different times been in existence in town, of which much less than half are now in operation.

#### MILFORD COTTON AND WOOLLEN MANUFACTURING COMPANY.

This was the corporate name of the cotton factory which was established in the early part of this century upon the south side of the river opposite Shepard's mills and a few rods below the stone bridge. The company was incorporated June 10, 1810. The grantees were James Wallace, Jotham Shepard, William Lovejoy, Robert Means, and Thomas Means. A substantial building was erected in 1813. The manufacture of cotton yarn commenced in 1814. The manufacture of cloth by power looms commenced in 1824. In 1833, in consequence of the pressure of the times, the proprietors suspended operations.

In 1837, Humphrey Moore, George Daniels, Ezra Gay and James Searles purchased the corporate property and made thorough repairs of the machinery. They manufactured in 1839, tickings and shirtings, 176,146 yards. Number of hands employed in all departments of business on the first day of January, 1840, about 40. Number of spindles in operation at the time, 1,024, -- 30 looms for shirtings, and 16 for tickings. The property afterwards passed into the hands of George Daniels and Ezra Gay who continued the manufacture of cotton goods for some years, after which the property passed into the hands of the Souhegan Manufacturing Company.

In 1860, the property was leased by Morse, Kaley & Co., for ten years; this firm at once commenced the manufacture of knitting and tidy cottons. At the end of the lease, the property was purchased, and a large addition made to the main mill. A brick picker house, a store house, and office were also built. In 1882, upon the death of the Hon. Timothy Kaley, who had had the active management of the firm since 1860, the business of Morse & Kaley was incorporated under the laws of New Hampshire as the Morse & Kaley Manufacturing Co., with E. J. W. Morse as president, Col. F. E. Kaley as treasurer, and L. C. Billings as superintendent. In 1883, an engine and boiler house, a machine shop and a steam plant, capable of furnishing sufficient power to run the entire mill, were provided.

The goods manufactured by this concern are sold from Maine to California, and as the company has always kept up the quality of goods manufactured, it is understood by the consumer the country over, that an article with the name of Morse & Kaley on it is sure to be first-class in every respect. Number of hands now employed, 1897, seventy-five.

Many of our citizens, now advanced in years, remember the old cotton mill as it appeared in their younger days, when cotton spinning and weaving by power looms was in its infancy. This mill has furnished employment for four-score years to a large number of operatives, and the money received from its pay-rolls has contributed largely to the prosperity of the town. As now managed it is one of the most profitable establishments in this neighborhood.

#### THE SOUHEGAN COTTON MILL.

By far the largest manufacturing enterprise which the town has had within its borders was carried on under the corporate name of the Souhegan Manufacturing Company.

Adam Dickey, George Daniels, Ezra Gay, James Searles, Hiram A. Daniels, during the time the old cotton mill was used for the manufacture of cotton cloth, were the active men in charge of affairs. In 1846, Daniel Putnam and Leonard Chase, the owners of the water privilege at the stone dam, in connection with some of the parties interested in the old cotton mill, conceived the idea of erecting a cotton mill in Milford, in which cotton manufacturing should be carried out much more extensively than ever before.

A charter was obtained in 1847, providing for an organization with a capital of \$150,000. A substantial brick mill was built in the year 1848, some ninety rods below the stone darn, on the north side of the river. The mill was a substantial structure 118 feet long by 48 feet wide. It had two wings each 30 by 25 feet. It contained 6,500 spindles and 128 looms and was in every way, for the times, a well equipped cotton mill. A powerful steam engine was subsequently added to supplement the water power at dry seasons of the year. In connection there were ample boarding houses for the operatives, and several tenements erected for the accommodation of families of overseers.

The building of the mill was the occasion of the erection of many private residences in that general neighborhood. "The Acre," mostly within the limits of Amherst, was used for building purposes by enterprising people of Irish extraction who had been attracted to this vicinity by the building of the cotton factory. If the memory of the historian is not at fault, the first Irishman making a home in Milford came here as a laborer in the construction of this mill. Nearly one half of the stock was taken by Milford people, Putnam & Chase being the largest owners. The mill was in operation twenty-three years. Its stockholders and managers were progressive men, interested in the material advancement of the interests of the town, and the mill and all its surroundings were well cared for and kept in such shape as to be a credit to the town. Its monthly pay-roll was an event which not only made glad the hearts of the operatives, but very largely increased the receipts of our business men.

But few dividends were paid. The mill was too far from the railroad station (about a mile), and the expense of transporting the cotton to the mill from the depot and the return of the product of the mill to the railroad was very large.

The most serious blow to the material prosperity of the town occurred in April, 1872 when the valuable property was destroyed by fire. The buildings were insured to a moderate extent, so that with the sale of the water power and land, at a very low figure, the stockholders received about one half of the par value of their stock.

The product of the mill consisted of goods at that time manufactured in cotton mills of moderate size, --plain cotton cloth, denims, and tickings. The agents of the mill were:

Walter T. Jaquith.  
Charles Gillis.  
Moses French.  
David Gillis.  
Thomas W. Gillis.  
George C. Gilmore.

## HILLSBOROUGH MILLS.

That part of the town through which the highway passes from Jones's crossing to the Wilton line has for many years been called the "Pine Valley." The name was undoubtedly given the locality from the fact that pine trees were formerly found growing there in large numbers.

In 1866, the legislature chartered the Pine Valley Company, and a dam across the Souhegan was built at a point considerably above the location of the ancient Jones dam and the Tyler dam of 1834, and the mills and canal, now the plant of the Hillsborough Mills, were built.

The manufacture of woolen carpets was successfully carried on until the year 1873, when the legislature of the state chartered the Hillsborough Mills which succeeded to the property and the business of the Pine Valley Company. For a score of years this enterprising and well-managed corporation has had a high rank among the dividend paying companies of the state. It has been and is fortunate for the town that this valuable piece of property, within less than a mile of the principal village of Wilton, is for the important purpose of taxation, a part of the town of Milford. The capital of these mills is \$220,000. The product at the present time consists of carpet yarns, bed blankets, horse blankets, and cassimeres. The value of the annual product is about \$400,000, and the number of persons employed when the mills are in full operation, two hundred.

The mills are substantially constructed of brick, and contain an engine of sufficient power to make good any lack of water power during the dryest portions of the year.

The officers of the corporation at the present time are: Directors, William W. Bailey, Harvey A. Whiting, William D. Cadwell, John F. Stark, David A. Gregg, Nash Simons, and Prescott C. Gates. Mr. Bailey is president, and Mr. Simons treasurer and manager.

## BERRY'S MILL.

This sawmill, in the village upon the north side of the river, was purchased in 1895, of Henry S. Gilson, and is now (1898) the property of Smith Berry. For more than a century and a half this mill has been in constant operation, Col. John Shepherd and his relatives, for many years being its proprietors. In recent times the mill has been the property of the late William Gilson, and afterwards of his son, Henry S. Gilson.

In all its history, the general business of manufacturing round logs into lumber of various kinds has been carried on, and during the larger part of the time, a portion of the lumber so manufactured has been wrought into various forms of merchandise needed in this vicinity, and other sections of the country.

Under the Gilson ownership, cooperage stock was manufactured in large quantities, the value of this portion of the product of the mill rising sometimes as high as forty or fifty thousand dollars per year.

Mr. Berry possesses the most ancient saw and grist-mill site in town, and doubtless under his judicious management, it will continue to serve the public in the future as it has in the past.

## KENDALL AND WILKINS'S MILL.

This is an ancient mill site, located in the village upon Nonendum brook, or the Great brook, at a point very near its confluence with the Souhegan river.

A sawmill was built upon the spot as early as 1793, and from that time to the present day the brook has never ceased to turn a wheel. For a time the power was divided between a saw and a grist-mill, which were located in connection upon this plant. Many remember the mill yard, and the huge pile of logs which often extended far into the common.

The sawmill and the grist-mill were operated harmoniously, because they were generally owned by the same parties, but a world of trouble came from the fact that in the early history of this water power, its proprietors conveyed to the owners of the Buxton or Turner blacksmith shop the right to take water out of the pond, under certain conditions,

and use the same in the driving of a trip-hammer. Jonathan Buxton sold the black-smith shop to Caleb Turner in 1815, at which time the latter became a citizen of Milford, and for more than twenty years carried on the blacksmith business. His son, Granville Turner, who at different times has been connected with several industries in town, succeeded his father in business at this place.

Fifty years ago, more or less, and while Caleb Turner owned the blacksmith shop, the proprietors of the saw and grist-mill were advised by their lawyers that Turner had no rights in the water privilege which they were bound to respect. A very bitter lawsuit ensued, perhaps as bitter as any which has occurred in town. The verdict was, substantially, a victory for Turner, and the trip-hammer continued to pound, until, by purchase and sale, the blacksmith shop ceased to have any right in the water power.

The sawmill is now a thing of the past, as well as a woolen-mill, manufacturing hosiery, which took its place for a few years. The grist-mill, thoroughly modernized, is owned and occupied by Charles E. Kendall and Frank E. Wilkins. In addition to doing the custom work for a large extent of territory, this firm do an extended business in grinding Western corn; not less than fifty thousand bushels were ground during the year 1895.

#### HARTSHORN'S MILL.

Upon the new road to Mont Vernon is located the sawmill of Frank Hartshorn. This is an old mill site, and considerable business has been done here for many years, but, under the ownership of the present proprietor, a much larger amount of business is done than at any former time.

In addition to a large amount of work commonly done in saw mills, Mr. Hartshorn annually uses two hundred thousand feet of lumber in the manufacture of packing-boxes, and at least one half that amount is sawed into dimension lumber for building purposes.

At the time this mill site was first occupied, a very large amount of lumber was growing in the immediate vicinity, and although the larger timber trees have disappeared, the growth of lumber is sufficiently rapid in the territory to the north and west of the mill to warrant its continued operation.

#### C. H. V. SMITH'S MANUFACTORY.

Mr. Smith, whose beautiful residence is situated upon an eminence upon the south side of the Wilton road, and very near what might be termed the geographical center of the farm which the original Benjamin Hopkins carved out of the Charlestown school farm as a home for himself, has recently become the owner of the shop or mill at the lower end of the village, upon Nashua street, which at one time was connected with a wheel propelled by power obtained by means of an obstruction in the river which could hardly be called a dam.

Mr. Smith is building up a substantial industry, employing fifteen hands in the manufacture of house finish, chair stock, boxes, brush backs, broom handles, etc. Steam power is used exclusively, and the value of the annual product is estimated at twenty thousand dollars.

#### FURNITURE FACTORY OF FRENCH AND HEALD.

This business is carried on in the building near the stone dam a few rods below the suspension bridge erected by Joseph Lund and known years ago as the "Steam mill," from the fact that it was the first building in town in which steam power was used to any extent. At one time Fernald & Perkins were tenants, manufacturing sash, doors, and blinds. Andrew Fuller was another occupant, doing a large business in mirror and picture frames.

The business now carried on by French & Heald consists almost exclusively of the manufacture of furniture, and for nearly forty years David Heald has been connected with it. For five years, from 1888 to 1893, Mr. Heald had as partners, Joseph W. Howard and Charles French of Nashua. Mr. French still remains in the business, and the style of the firm at the present time is French & Heald.

The motive power of the mill is steam, which compares favorably, so far as expense is concerned, with water power as the refuse material supplies the boilers with fuel. The value of the annual average product of the factory for the

last five years has been one hundred and fifty thousand dollars, and the average number of hands employed has been about one hundred. The lumber used is in part obtained in this neighborhood, but the amount shipped by rail from a distance is large.

From the time Mr. Heald identified himself with this business it has had a continuous and persistent life. Few enterprises have been prosecuted longer, and it is not easy to estimate the benefit conferred upon the town by Mr. Heald, who has remained in business for so long a time, during which several periods of financial embarrassment have visited the entire country.

#### BARTLETT'S HOSIERY MILLS.

Among the industries in town which have been introduced at a comparatively recent date, the hosiery mill of P. Bartlett & Son has a prominent place. This and several smaller industries have in large measure made good to the town the loss which it suffered in the destruction by fire of the Souhegan Cotton Mill, twenty-five years ago.

The business of which we would here give a brief description, was established in 1886, by Persons Bartlett and his son, Fred H. Bartlett.

The firm came to town ten years ago as strangers, but they brought with them experience and capital. Their factory is located upon Nashua street, immediately below the plant of Hon. John McLane. Ladies', misses', and infants' woolen hosiery is manufactured upon an extensive scale. A steam engine of sufficient power propels the machinery.

The annual average value of the product of the mill is \$90,000, and the number of hands employed when the mill is in full operation, is one hundred and forty; monthly pay-roll \$3,000. The town has shown its appreciation of the service rendered by this firm by sending both its members as representatives to the general court.

#### McLANE'S POST-OFFICE FURNITURE FACTORY.

In the year 1880, Hon. John McLane commenced the business of manufacturing post-office furniture, and three years later bought the mill property on Nashua street, then known as the Fuller mills. Securing the ownership of several valuable patents relating to post-office boxes he enlarged his business to a considerable extent. In 1885, finding his factory inadequate to supply the growing demand for improved post-office equipments he started a factory in Chicago, Ill., where twenty-five men were employed -- 40 remaining at work upon the home plant. In 1888, having largely increased his facilities for rapidly producing post-office outfits at home, and the lease of his Chicago manufactory having expired, the machinery of that establishment was removed to Milford. Now all manufacturing is done in this town. An office and salesroom are continued at Chicago as a matter of convenience in the distribution of the product of his factory.

A small business has become an extensive and profitable affair. More than 12,000 post-office outfits have been made and sold. They have been sent into every state and territory and into nearly every county in the United States. The business was never more prosperous than at the present time, and is one of the substantial industries of the town. Number of hands employed 1897, between thirty and forty. Mr. McLane also employs from fifteen to twenty hands in the manufacture of baskets of all kinds.

#### THE FOSTER TANNERY.

The only tanning establishment in town is now owned and until recently was operated by Albert J. Foster of Boston, Mass. It is situated upon the site of the old tannery which was erected some sixty years ago by Humphrey Moore, upon the easterly portion of his farm a few rods south of Elm street.

The names of John Ramsdell, Jacob Gove, Francis J. French, and James Lewis are remembered among those who for nearly half a century owned and occupied the plant, doing a business varying in amount at different times.

In 1884, the buildings were destroyed by fire. The present structure is large enough to accommodate a business five times as large as that done in the earlier years of the enterprise.

Mr. Foster became the owner of the real estate in 1885, and with abundant capital has done by far the largest business in the history of the tannery, giving employment to 125 men upon the average, with a large cash pay-roll. General tanning of upper leather has been, perhaps, the leading business of the concern, but the morocco dressing department has been one of the largest of the kind in America.

The value of the annual product of this tannery amounts to \$350,000—a considerable part of which is sold in Europe. Hemlock bark is used in vast quantities; until a comparatively recent date the bark was obtained in this vicinity, but at the present time a large portion is transported by rail a considerable distance.

This industry, under the enterprising ownership and management of Mr. Foster, is contributing very largely to the material prosperity of the town.

#### THE BOOT AND SHOE BUSINESS.

Among the industries which flourished in town nearly half a century ago at a time when the population of the town was rapidly increasing, the manufacture of boots and shoes on an extensive scale had a prominent place.

The business was established by John Mills in a small shop at his residence near the East Milford station. He afterwards had as partners James Lewis and William Lane, and the business was carried on upon an extensive scale in the buildings now occupied by John McLane. Very few shoes were manufactured, but boots in cow-hide, kip, and calf-skin were turned out in quantities sufficient to supply a very large demand.

Farmers and workingmen generally wore cow-hide or kip boots for the larger part of the year. Business and professional men, for eight months of the year at least, wore calf boots with legs of full length, no other footwear except low shoes in summer, being used by this class forty and fifty years ago. The name of John Mills, Mills & Lewis, or Mills, Lewis & Lane attached to goods of their manufacture was a guaranty of the best stock and workmanship.

The business, perhaps, reached its highest volume about the year 1850. The work was done for the most part by men, many of whom were exceedingly skillful in their trade. This was before the day machinery was used to any considerable extent in the manufacture of boots and shoes. The business attracted a good class of men with families, who remained in town after the industry had given way to other branches of business. In a smaller way the same kind of goods was manufactured by Lane & Dickey, Stephen C. Coburn, Joel W. Hamblett, and others, and for many years Milford boots and shoes were sold in almost every town in the United States.

#### THE MILFORD PLOW COMPANY.

Among the industries which added very much to the volume of business done in town nearly fifty years ago was that carried on by the Milford Plow Company. It was not an incorporated company, but a partnership composed of Daniel Putnam, Leonard Chase, John G. Raymond, George W. Came, and Abel Chase.

Within the memory of many persons the old-fashioned plow with a wooden mould-board covered to a greater or less extent with thin plates of iron was in use. The smaller plows gave way to those made of iron and steel before the farmers were content to surrender their breaking up plows with wooden mould-boards.

A radical change from the old style to the new gave a great impetus to the plow-making business. David Duncklee was for many years in the business and was succeeded by his son, William P. Duncklee. About the year 1850 (this was before the day of trusts and combinations) the men already named organized the plow-making business upon an extensive scale. The leading pattern was the celebrated Eagle plow, which included every size needed by the farmers of New England, from the smallest horse plow to the largest sod plow. Some were made of an unusually large size for the especial purpose of road building and repairing. So large was the demand for these plows, and so wide was the market, that in 1852 fifty hands were employed in their manufacture.

In connection with the manufacture and sale of plows, this company at its sales-rooms in the old depot store upon the ground now occupied by the Brookline & Milford Railroad as a depot, kept for sale other agricultural implements in large variety, so that for a few years the town had a large trade in this kind of merchandise. The

organization of very large concerns to manufacture farm implements, by degrees concentrated the business and this industry after a few prosperous years ceased to exist in Milford.

#### IRON FOUNDRIES.

The iron-foundry business was established in Milford about the year 1842 by Daniel Cram. The building in which the business was first carried on, was located on Nashua street, upon, or very near, the spot now occupied by the hosiery mill, and was built by Daniel Putnam who afterwards became a member of the firm of Cram & Putnam. This firm was succeeded by Putnam & Chase.

At first stove and plow castings were the leading articles manufactured, but from the beginning castings of all kinds were made for farmers, mill-owners, and the general public. At first no stove bearing the name, or known as the product of the Milford foundry, was manufactured, but before the firm of Putnam & Chase was dissolved, in the year 1849, the Granite State cook stove was put upon the market and largely introduced by this enterprising firm, owning and operating the foundry. None of the foregoing proprietors were practical workmen, and in 1849, the business passed into the hands of Pratt, Hill & Company. This firm was made up of William Pratt, Samuel H. Hill, Azro Jones, and George W. Bosworth.

Pratt had been connected with the business as a workman from its foundation, and Hill, Jones, and Bosworth were skilled foundrymen. In a few months Hill and Jones left the firm, the name and style of which was changed to Pratt & Bosworth.

In January, 1854, Henry M. Bird became interested as a partner, and during the remainder of the time the business was carried on in Milford, the firm was known as Pratt, Bosworth & Company.

At the time Putnam & Chase disposed of their interest in the foundry business, only some seven or eight men were employed, but afterwards the business of the foundry gradually increased until at times twenty-five men were employed.

The stove known as the North Star cooking stove was patented by Pratt, Bosworth & Company, and had a very large sale in all parts of New England and in the Middle and Western states.

As business increased, the accommodations upon Nashua street were found to be altogether insufficient, and a new foundry was erected upon the line of the Wilton Railroad near the present location of the Fitchburg Railroad station. At this point which gave the plant a close connection with the railroad, a large and profitable business was carried on until the year 1856, when, owing to an unusual advance in the price of iron, and the financial depression which culminated a year later in the panic of 1857, the foundry ceased to do business. Largest annual product of the foundry, \$40,000 to \$50,000.

No attempt has been made during the last forty years to re-establish the iron foundry business in Milford, the tendency having been during this time in the direction of large manufacturing establishments located within easy reach of iron and coal.

#### THE GRANITE BUSINESS.

From the settlement of the town it has been known that in its soil were located vast ledges or quarries of granite, and stone has always been liberally used for underpinning, bridges, and faced walls, but it was not until the town became possessed of railroad facilities that granite became an article of commerce to any considerable extent.

It is difficult to decide the exact date when the first quarrying operations were inaugurated, but something over seventy-five years ago a quarry was opened in the southwestern portion of the town on Burns hill. It is a rugged rise of land and forms a part of a chain of hills that reaches back in a southerly direction.

The opening of the Wilton railroad, in 1854, made it possible to ship stone to out-of-town customers at a profit, and from this date the quarrying of stone has been one of the leading industries of the town. The side tracks upon the

Wilton railroad, and more recently the tracks of the Fitchburg road, have brought all the quarries upon the south side of the river into close connection with the markets of the country.

The building of the Fitchburg branch added largely to the value of the Burns hill quarries, and it is estimated that nearly a thousand tons of granite per month go out from this hill. The granite lies near the surface in large, even sheets, and it is possible to quarry dimension stone, as it splits with remarkable evenness.

While the quarries of building stone have been in process of development, the demand for granite for monumental purposes has rapidly increased, and on the hills in the southeasterly portion of the town are found quarries of the finest grade of monumental stone. These quarries were first opened some twenty-five or thirty years ago, and the stone brought to the attention of the trade, with whom it immediately found favor, and during the last ten or fifteen years the quarries have been thoroughly opened to a depth of thirty to fifty feet.

The color of this monumental stone varies in different quarries. There are found white, pink, light and dark blue, all of which are very fine in grain, clear and bright in color, and remarkably free from imperfections which are usually found in fine granites. The lighter granites are especially adapted for fine carved work, statuary, and anything requiring extra fine workmanship. The blue shows a greater contrast between the cut and polished parts than any other granite in use. It is the strongest granite worked; the crushing test is 24,950 lbs. to the cubic inch. These fine granites lie in large, even sheets from two to ten feet thick, and any size can be quarried with very little delay.

During the last few years stone has been quarried for large monuments, mausoleums, and memorials, which have been cut here or shipped in the rough to other places to be cut. In a cemetery in Albany, N. Y., there is a monument of the finest workmanship, 16 feet high and weighing 35 tons, quarried in this section of the town. While thousands of feet of rough granite are shipped every month, much more is cut by the owners of the quarries who are also manufacturers.

The work turned out is of the highest order, both as to stock and workmanship.

In addition to the more common uses of granite for building purposes and monumental work, the stone from the southeastern quarries is being used by sculptors, many fine specimens of statuary having been cut and executed.

Wherever granite is used for the finer purposes there is necessarily produced a large amount of coarser stock, and the shipments of this latter class from the tracks of the Wilton railroad in the form of paving stones, curb stones, etc., have been and continues very large.

Not only are extensive ledges found upon the south side of the river, but the same stone comes to the surface in valuable quarries in the northerly portion of the town, and the product is used not only for the more common purposes but for the finer uses to which the best granite is put.

A monumental shaft, twenty-four feet in length and forming a cube three feet by three, and another thirty feet in length, the other dimensions being the same, were cut upon this side and shipped to Philadelphia.

The location of the quarries upon the north side of the river, some three miles from the railroad station in the village, has seriously interfered with their operation. Yet, in the face of these difficulties, a large amount of stone has been shipped from this part of the town.

The annual product of our quarries was estimated ten years ago at 20,000 tons. Since that time the output has been largely increased. Recently polishing mills, capable of handling and finishing the largest blocks, have been put in operation.

The number of men employed has constantly increased until this industry leads all others in importance. In fact, the quarrying and manufacture of granite has assumed such proportions that it has made the town known in all sections of the country.

According to the recollection of the writer, Capt. Peter Burns was the pioneer quarryman, and was succeeded by his sons, John M. and Luther M. Nathan Merrill was also an early operator.

At different times the following individuals, firms, and corporations, in addition to those already named, have been engaged in quarrying or manufacturing this product of our soil. The list is by no means complete: Edward G. Kittredge, Charles W. Stevens, The Stevens Granite Company, William H. Young & Son, The Milford Granite Company, F. J. Fuller, The Ponemah Granite Co., Pond & Lovejoy, Milford Gregg, George Faulkner, Miller & Luce, H. W. & J. L. Hayden, King & Robertson, Burnett Brothers, The New Westerly Granite Company, Yule & Ingram, Comi Bras., Souhegan Granite Company.