

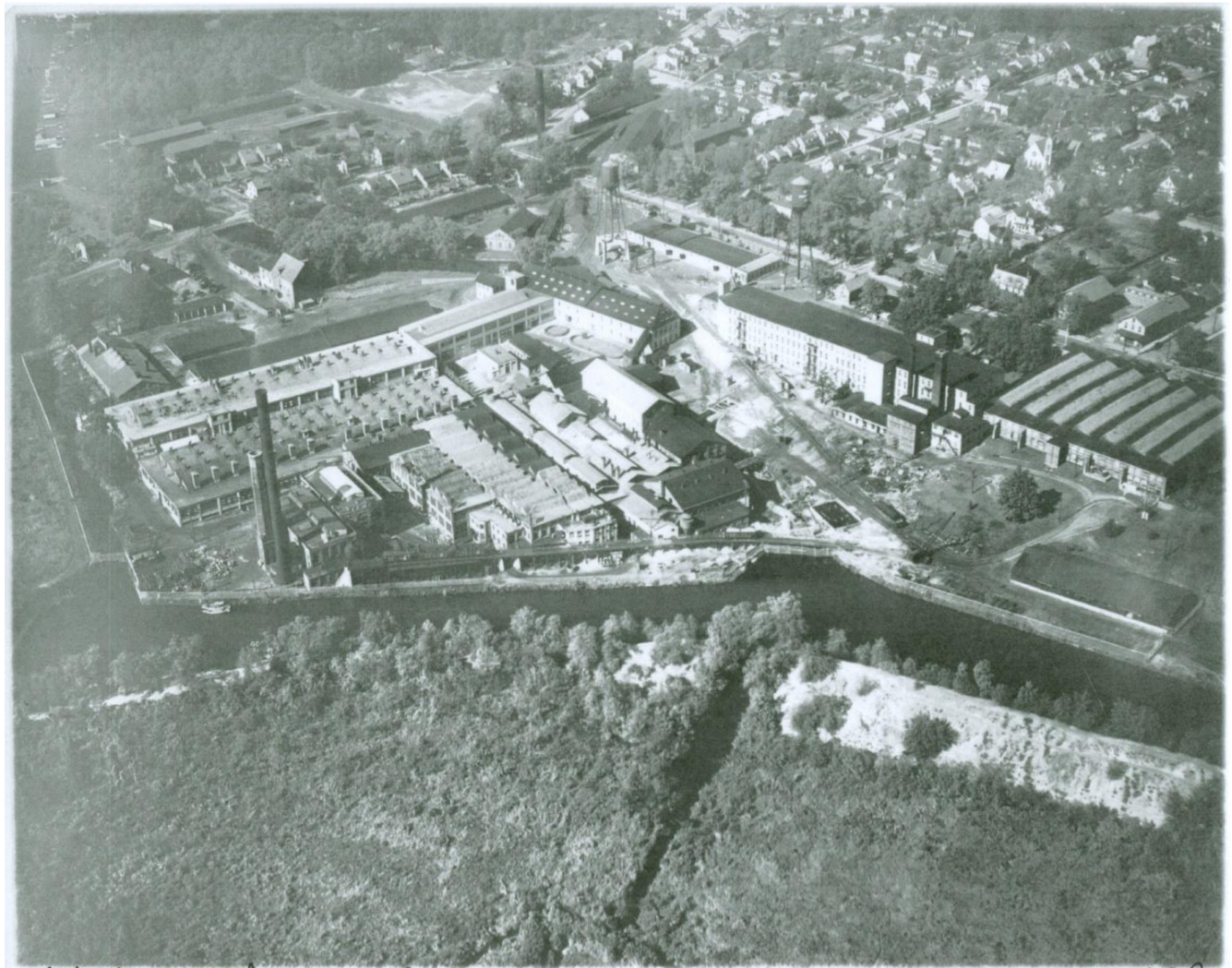
A Chronology Of R. D. Wood & Company

By Paul M. McConnell

Worthington, Ohio

March 2017

The entries in this Chronology were derived from data assembled in January, 2017, by Paul M. McConnell, a native son of Millville, New Jersey. The information was found in numerous books, catalogs, genealogical records, periodicals and other documents, many of which are available online at Google Books. Whenever possible, documents from multiple sources were cross-checked to resolve conflicts. One significant conflict is between the generations of Richard Woods given in Shourd's *History and Genealogy of Fenwick's Colony, New Jersey*, (George F. Nixon, Publisher, Bridgeton, N. J., 1876) and those given in Sower's *The Association of Centenary Firms and Corporations of the United States*, 1916 (Sower = Shourd's + 1). Sower's generations are used here.



Millville Manufacturing Co., Millville N.J. Dallin Aerial Surveys, 1929

** See note

A Chronology of R. D. Wood & Company

- 16?? – Richard Wood of Bristol, England, married Ruth Brock
- 1671 – James Wood, son of Richard and Ruth Wood, b. 15 December, 1671, at Bristol
- 16?? – James Wood married Jane ? (b. 24 September, 1671, at London)
- 1682 – Richard Wood, his son James and Jane Wood arrived at Philadelphia
- 1685 – Richard Wood of Bristol died
- 1694 – Richard Wood (2nd), son of James and Jane Wood, born 30 November, 1694, at Philadelphia, d. 1759
- 1705 – The Cape Road, also called the King's Road, was laid out from Salem to Cape May, New Jersey, following old Indian trails
- 1715 – Richard Wood (2nd) married Priscilla Bacon (b. 6 November, 1699)
- 1727 – Richard Wood (3rd), son of Richard (2nd) and Priscilla Bacon Wood, born 18 January, 1727, d. 1807
- 1754 – Richard Wood (3rd) married Hannah Davis (b. 1728)
- 1755 – Richard Wood (4th), son of Richard (3rd) and Hannah Davis Wood, born at Greenwich, Cumberland County, New Jersey, 2 July, 1755, d. 1822
- 1776 – Henry Drinker acquired land totaling 21,723 ¼ acres in Cumberland County, New Jersey, on the main branch of the Maurice River, near the Cape Road, which included the site of a dam and the Union Mill, from which lumber was floated down the river to ships for transport to market
- 1780 – Richard Wood (4th), who became a successful Greenwich farmer, cooper, owner of a general store, and an elected member of the Assembly of the State of New Jersey, married first wife Ann Cooper
- 1781 – David Cooper Wood, son of Richard Wood (4th) and Ann Cooper Wood, born, d. 8 October, 1859

- 1793 – Richard Wood (4th) married second wife Elizabeth Bacon (b. 1776 - d. 1826) on 6 November, 1793
- 1795 – Captain Joseph Buck (a veteran of the Revolution), Eli Elmer, and Robert Smith bought the Union Estates property and Buck laid out plans for a city to be called Millville, which was to contain mills and **manufactories** deriving power from damming the Maurice River
- 1797 – George Bacon Wood, son of Richard Wood (4th) and Elizabeth Bacon Wood, born on 12 March, 1797, at Greenwich, lived to become a respected physician
- 1799 – Richard Davis Wood (5th), son of Richard Wood (4th) and Elizabeth Bacon Wood, born on 29 March, 1799, at Greenwich, lived to become a very successful business man and the driving force behind R. D. Wood & Company and other enterprises, d. 1 April, 1869



Engraved by Samuel Sartain

R. D. Wood
1845

- 1803 – David C. Wood, with James Lee and Edward Smith, purchased 12,000 acres at Millville, including Union Mills, and created a canal 2 miles long to extend the water power from those mills south to the head of navigation on the Maurice River, where they established a furnace for smelting bog iron ore by burning timber from their tract, and set up a foundry to make stoves and lamp posts
- 1814 – David C. Wood built a larger furnace and iron foundry at Millville, a place which offered raw materials, fuel, water power and navigable tide water, making it a uniquely desirable location, and produced iron lamp posts for the streets of the City of Philadelphia and iron fences for the public squares, and cast iron water pipe for the Philadelphia city water works and other growing metropolitan areas
- 1820 – Richard D. Wood, 21 years old, opened a store at Salem, New Jersey, and within

two years his talents as a business man took him to Philadelphia, where he involved himself in the dry-goods trade, then later served with an insurance company, railroads, the Schuylkill Navigation Company and banking concerns

1826 – Richard D. Wood's mother Elizabeth died, and Richard and his brother George declined their inheritance from their parents, leaving it to be divided among their younger siblings and older half-brother David C. Wood

1832 – Richard D. Wood married Julianna Randolph (b. 1810 - d. 15 March 1884?) on 16 October, 1810 (their children were Richard, Mary, Edward, Caroline, Randolph, George B., Julia, Walter, and Stuart)

1834 – A modernized furnace for making cast iron pipe was built at Millville

1838 – Caroline, daughter of Richard D. and Julianna Wood, born 23 May, at Philadelphia

1844 – Richard D. Wood began assisting his older step-brother David, who was experiencing difficulties managing the iron furnace at Millville

1850 – After several years of overseeing David's struggling foundry, Richard purchased the Millville iron works at a sheriff's sale, along with an accompanying 20,000 acres of land, and subsequently renamed the business R. D. Wood & Company

1851 – Richard D. Wood began enlarging the Maurice River canal to meet the increasing demand for water power at Millville

1852-1854 – The increase in water power at Millville enabled R. D. Wood & Company to grow, resulting in construction of a cotton mill, a sawmill and a gristmill

1854 – Richard D. Wood sent the first paid telegram from Millville, New Jersey

1856 – R. D. Wood & Company opened at Millville a foundry for casting pipe vertically

1857 – Richard D. Wood's 19 year old daughter Caroline died after falling from a horse

1859 – David C. Wood died on 8 October

1859 – A list of New Jersey charcoal furnaces in *The Iron Manufacturer's Guide*, (J. P. Lesley, John Wiley, New York, 1859, page 62) states:

"Hot-blast Charcoal Furnace, owned by R. D. Wood, and leased by R. D. Wood & Co is situated on Maurice river in Cumberland county New Jersey, in the town of Millville,

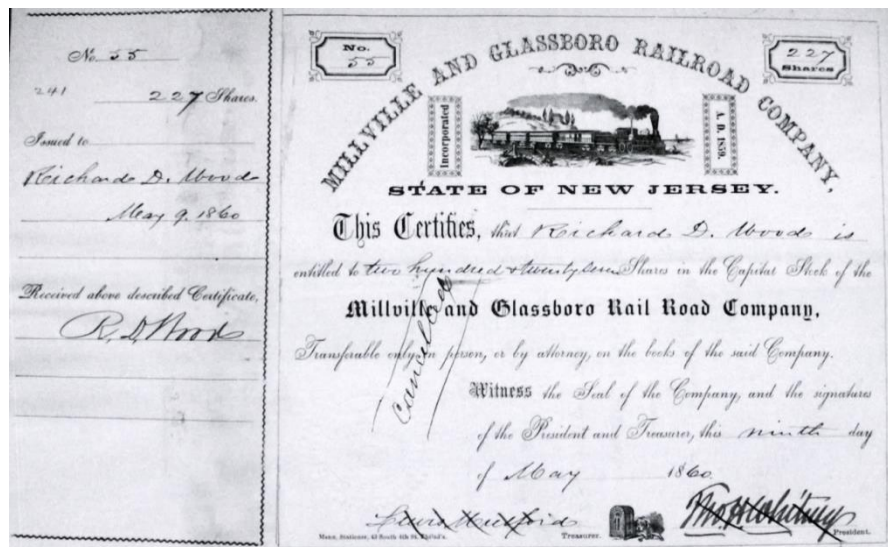
and ten miles east of Bridgeton; was built about 1815 and rebuilt in 1853, 9 feet across the bosh by 32 feet high; was regularly in blast until the fall of 1850 and has done little since 1854, when in twenty-one weeks 550 tons of foundry metal were made, out of bog ore found in the Tertiary deposits of the Atlantic seaboard, mixed with others from the State of Delaware near Milton and elsewhere."

"All these were Charcoal furnaces making mostly foundry metal out of the superficial deposits of bog ore and using the timber of the Jersey Pines. The Anthracite foundry iron manufacture has destroyed this branch of the Charcoal manufacture, but many of the large foundries attached to these furnaces continue to be used and have been increased in size."

1860 – Negotiations between Richard D. Wood, the State of New Jersey and the West Jersey Railroad resulted in the addition of a railway line from Camden (and therefore, Philadelphia) to Millville by 1860 and on to Cape May by 1863, which led to a surge in economic growth for Millville

1864 – Two new industries were built: The Menantico Bleach and Dye Works, a textile finishing plant, and a window glass works that took advantage of the abundant, high-quality glass sands found at Millville

1865 – The Woods' textile industry was incorporated as the Millville Manufacturing Company in the State of New Jersey



867 – R. D. Wood & Company expanded its foundry operations by acquiring and enlarging the Florence Iron Works at Florence, New Jersey, and grew its textile business by incorporating the Mays Landing Water Power Company and building a second cotton mill on the Great Egg Harbor River at Mays Landing, New Jersey

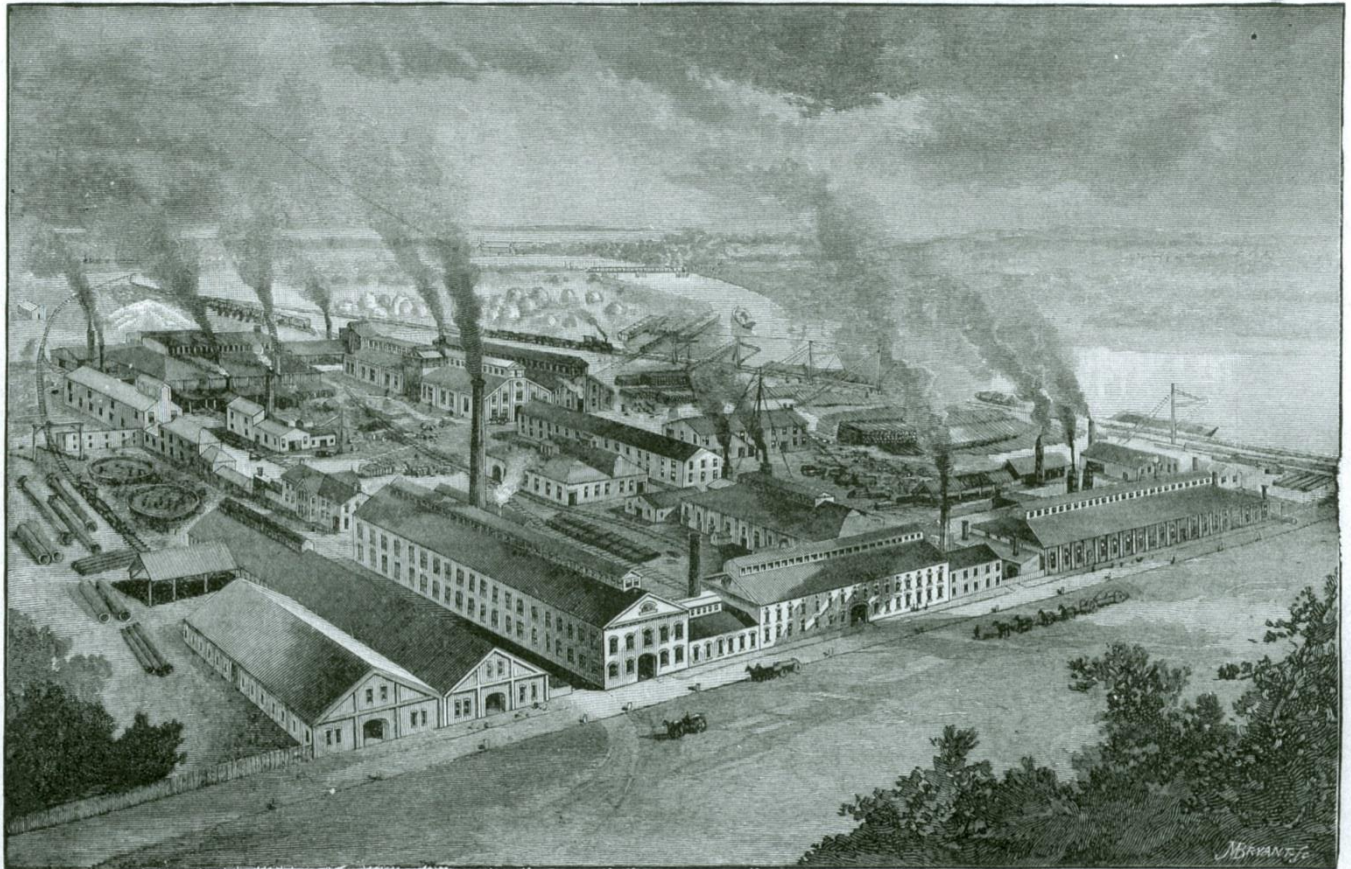
1868 – R. D. Wood & Company completed construction of the ½-mile wide Maurice River dam and the formation of what is now Union Lake, the largest manmade lake in New Jersey (the original sandstone spillway, 500 feet wide, was replaced with a modern concrete structure in the 1970s)



1869 – Richard D. Wood died, at age 70, on 1 April, 1869, leaving the business in the hands of his six sons (Richard, Edward, Randolph, George, Walter, and Stuart)

1876 – The *Catalog of the Centennial Exposition* held at Philadelphia lists these items on display there from the Millville Manufacturing Company: Bleached shirtings, cambrics, silesias, printed linings, umbrella cloths, velums, window hollands, tillottings, etc.

1883 – R. D. Wood & Company bought the Camden, N.J., foundries of J. W. Starr & Sons, and the Florence and Camden foundries were enlarged



THE CAMDEN IRON WORKS.

1891 – The following review of R. D. Wood & Company's progress appeared on p. 169 of *Philadelphia and Popular Philadelphians*, published by The North American:

"The history of the rise and progress of the iron trade in this country is so closely associated with the interests of this extensive manufacturing plant that any reference to the iron trade must needs make mention of Messrs. R. D. Wood & Co. The inception was at Millville, N. J., in 1803, when David C. Wood first started his charcoal iron furnace, making a fine grade of pig iron. After some success here the business became unprofitable, and he devoted his energies to the manufacture of iron pipe. This plant has been in active operation almost continuously since that time. In 1847 the capacity was greatly enlarged, and Mr. R. D. Wood became a member of the firm, under the style of R. D. Wood & Co. They manufacture all kinds of iron castings, stoves, pipe, lamp

posts, railings, and in fact everything in this line, much of the iron work in the older portions of the city being the product of this house. In 1867 the capacity was again increased through the purchase of a foundry at Florence, N. J., which was the outgrowth of the charcoal furnace operated by Mr. Richard Jones at Hanover, N. Y. In 1867 Mr. Richard D. Wood died, and he was succeeded by his sons, Messrs. Richard, George, Walter and Stuart Wood. Since that time it has been entirely under their management, and the success has been largely due to their careful and conservative business methods. In 1883 the plant was again increased by the purchase of the works formerly operated by Jesse W. Starr, at Camden, N. J. These latter are one of the largest of the kind in the country, and are in every way fitted with the newest and best machinery. Their manufactories are now located at three different places, Camden, Florence and Millville.

During the past quarter of a century the business has largely increased, and has indeed built up a national reputation, and every effort is made to keep the product fully equal, both in quality and quantity, to the demands of this progressive country. Their patent fire-plug is now in use in more than two hundred cities in the United States. It is a most important invention, and is of great help to firemen in extinguishing fires. Notable among their productions is their patent "gas holder," built for any required capacity, which they have supplied to gas companies in nearly every large city. The features of the holder are that it stands unrivalled for security, durability and economy. Another department of manufacturing to which much attention has been paid is the erection of water works for the supply of cities. In the Fairmount Water Works of this city they have placed seven turbines, three of which are the largest in existence. In addition to the lines already mentioned, the manufacture of iron pipe is carried on to a large extent. At the present time, they have on hand a large contract to supply all the pipe necessary in the city of Seattle, Wash. Their trade has no boundary limits, extending all over the country, besides a large export business to Central and South America, Mexico and Canada."

1892 – George Wood purchased a farm at Wawa, Delaware County, Pennsylvania
(Wawa being the Lenni-Lenape word for big goose or land of big geese)

1894 – A review of water power published by the State Geologist of New Jersey
included the following information:

"Water-power – The plant of the Millville Manufacturing Company is one of the finest water-power plants of the State. A pond 926 acres in extent is formed by a dam of earth about 12 feet wide on top and with slopes of about one and one-half to one, with a masonry overfall and timber apron. The water is raised by this dam 26 feet, and the length of the structure is 2,200 feet. This is the largest entirely artificial body of water in the State. A draught of 4 feet upon this pond will afford 0.32 inch storage on the water-

shed, and in consequence the power is an exceptionally good and steady one. By Table No. 61, we estimate the power available for 9 months to be 21.8 horse-power per foot fall day and night. The minimum power would be 6.55 horse-power per foot fall, and the entire flow can be concentrated into working hours, or 60 hours per week. With the above pondage, however, the power can be maintained at 13.1 horsepower per foot fall, or 26.2 horsepower for 12 hours daily for every day of the ordinary dry year. The fall is about 22 to 24 feet. In the Census Report of 1880, it was stated that 690 gross horse-power was in use and said to be available for 10 or 11 months of the year. In Appendix I. will be found the amount of power at present in use. Supplementary steam-power, amounting to about 300 horse power, is in use in the cotton factory and bleachery. There is no doubt that to this water-power is to be attributed at least a part of the great prosperity of Millville during recent years.

Maurice River, Millville, Cumberland County

Millville Manufacturing Co.

(One Dam, One Raceway supplies all of these wheels - 22 foot fall)

NET, GROSS H.P.

Water Works	40	60
Flouring	40	60
Blacking Mill	50	70
Foundry	60	85
Bleachery	100	145
Cotton Factory	400	575"



*** See note

1894, 1896, 1912 – several Wood Company restructurings took place

1900 – Operations were suspended at the Millville foundry

“It was in Millville that R. D. Wood succeeded his brother David in pipe founding and by interests acquired in Florence and Camden made the present well known Philadelphia firm of R. D. Wood & Co the largest manufacturers in this product.”

1906 – Florence foundry expanded

1910 – Richard Wood died

1911 – George Wood retired.

1914 – Stuart Wood died 9 March

1915 – Walter Wood took charge as sole owner

1915 – R. D. Wood & Company foundries produced 48" cast iron water mains to carry water from the mainland across 22,000 feet of salt marsh to Atlantic City

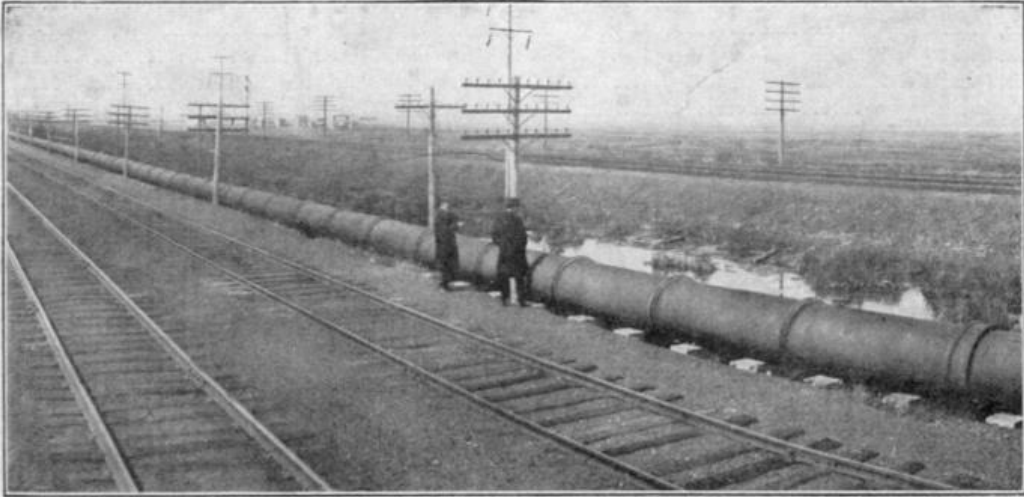
R. D. WOOD & CO.

Foundries and Works:
Florence, N. J.
—
Cable Address:
"Tuckahoe," Phila.

Engineers Machinists
Iron Founders

CODES—
Bentleys
Western Union
Premier
A B C — 5th Edition
Improved

400 Chestnut Street
Philadelphia, Pa., U. S. A.



ATLANTIC CITY AQUEDUCT
48-INCH CAST IRON PIPE FURNISHED BY R. D. WOOD & CO.
REPLACING PRIOR STEEL AND WOOD STAVE PIPE LINES

We are manufacturers of Cast-Iron Pipe for Gas and Water

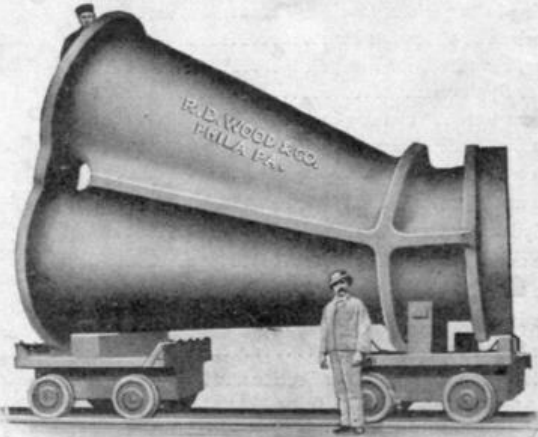
"Reduced" Specials
Sold by the Piece

Cutting-in Specials

Standard Flange Pipe and
Specials

Flexible Joint Pipe

High Pressure Hydraulic
Piping



OTHER PRODUCTS MANUFACTURED BY R. D. WOOD & CO. LISTED ON PAGE 44

WATER
AND
GAS WORKS APPLIANCES
AND
PUMPING MACHINERY

R. D. WOOD & CO.

PHILADELPHIA

ESTABLISHED 1803.



WOOD BUILDING, 400 CHESTNUT STREET.

Foundries and Works:
Millville, N. J.
Florence, N. J.
Camden, N. J.

Engineers,
Iron Founders,
Machinists.

CONSTRUCTORS OF
GAS AND WATER WORKS

SIXTH EDITION

1901

Cable Address:

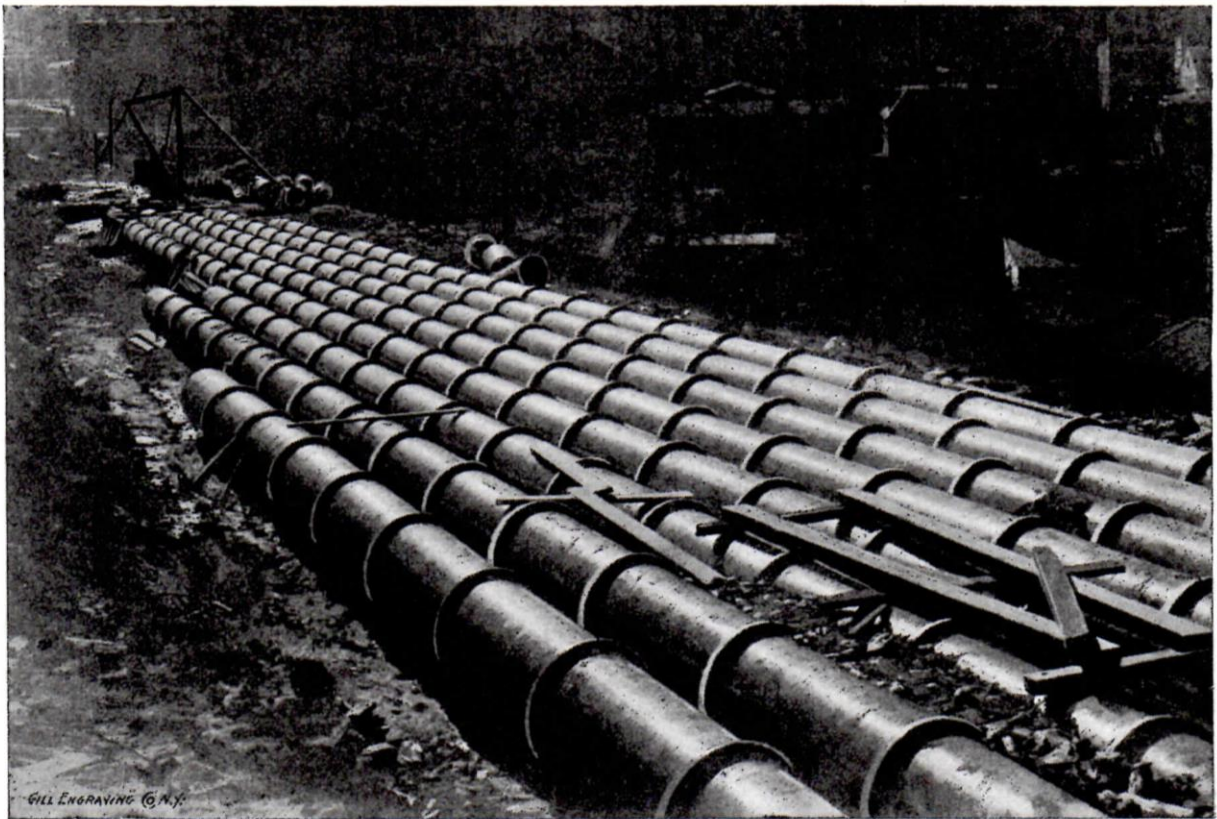
"Tuckahoe," Philadelphia.

CODES.—A B C Code, 4th Edition,
Lieber's Code, 1896,
Premier Code,
A 1 Code,
Watkin's Code,
Postal Directory Code,
Manufacturer's Export Code—Seeger's,
Western Union Telegraphic Code.

MANUFACTURERS OF

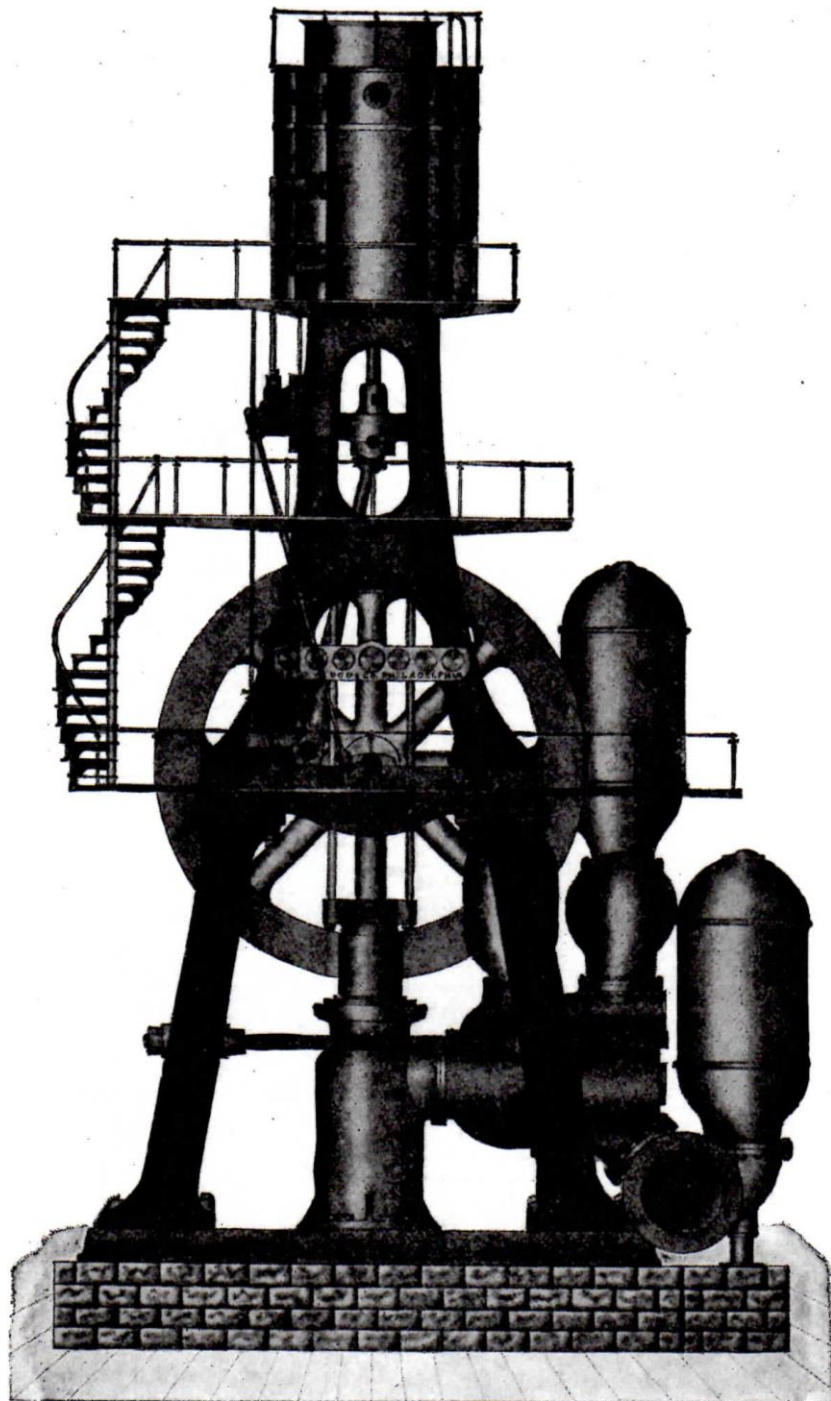
CAST IRON PIPE

1" TO 72" DIAMETER.



EIGHT LINES OF 48" CAST IRON PIPE.*

*FROM "WATER SUPPLY OF CITY OF NEW YORK," JOHN WILEY & SONS, N. Y.



VERTICAL CRANK AND FLY-WHEEL PUMPING ENGINE.

STEAM PUMPING ENGINES.

AFTER nearly a century of association with the water-works interests of this country, we feel that we have hardly to explain our recent entry upon this field, as it is a perfectly natural progression.

With shops located where the best mechanical work of the age is done, and with modern equipment, we have every advantage and facility for building high-class machinery.

Having connections already established with the water works, private and municipal, throughout the world, we feel we need no introduction other than to say that we are building steam-pumping engines.

We are advocates of no type, but will construct both crank-and-fly-wheel and direct-acting engines, either vertical or horizontal. We have no new and startling designs to offer, believing the general lines upon which the successful engines of to-day are constructed are the best. Whatever we do build, however, will be of the very highest excellence in point of design and workmanship, and our endeavor will be to add something to the best records with each successive engine.

We have associated with us men who have designed and built the very engines that have so far achieved the highest records, and they have but to do a little better than they have done in the past to enable us to present a better engine than has been built.

The city of Cincinnati has awarded us, after careful investigation of competitive designs, a contract for four engines each of thirty million gallons capacity. These engines are of the vertical triple expansion type, standing in a pit eighty-five feet deep, and when completed will probably be the heaviest engines in existence and representative of the very highest type known to-day.

Our contract includes boilers, stokers, economizers and traveling crane for a plant entire in every detail, and it is safe to say that it will not only be the largest new plant in existence, but the most complete.

* * * * *

It so often happens that water-works commissioners, or other officers of a city government, and officers of water companies who have no technical knowledge of a pumping engine, are called upon to decide between different bidders having varied designs, that we have thought it would be interesting, and possibly useful, if they had at hand a brief description and definition of the technical terms used in connection with a pumping engine.

It is wholly for this class of readers that we publish the following:

Crank and Fly-Wheel Pumping Engine.—This term embraces all the numerous forms where a crank and fly-wheel are used, and, unlike the direct-acting engine, is not in its present state of perfection the result of any one or more inventions, but is an evolution from the primitive mode of attaching an ordinary steam engine to a pump.

The perfected engine of this type of to-day is simply a specially designed crank and fly-wheel steam engine attached to a well-designed pump. The function of the fly-wheel is described elsewhere.

Other Types of Pumping Engine.—There are several other forms of pumping engines, such as the Cornish and Beam engine, which we will not further mention, as they

are obsolete, having been driven out of the field because of their expensive construction and low duty record in comparison with what is known as the crank-and-fly-wheel and direct-acting engine.

The Direct-Acting Pumping Engine.—To Henry R. Worthington and to Charles C. Worthington, father and son, must be accorded the credit almost wholly for the introduction of and the present state of efficiency of this type of pumping engine.

In 1840 Mr. Worthington, Sr., was engaged in experiments with a steam canal boat. Passing through the locks, or when the machinery was at rest from any cause, the attached boiler feed pump was stopped. The result was the devising of an independent steam feeding pump. This device, patented in 1841, was the first machine to have a steam and water piston attached to each end of a rod, and was the beginning of the direct-action system of pumping. In 1854 he built the first water-works engine of this type for Savannah, Ga.; and in 1863 brought out at Charleston, Mass., the "Duplex" engine, which "fairly deserves to be placed first among the hydraulic inventions of the century."

It was not claimed for this engine that it was as economical in fuel as the crank-and-fly-wheel type, but when considering the low first cost the increase in fuel, it was claimed, was more than compensated for by saving in interest.

In 1885 the world lost a great engineer in the death of Henry R. Worthington, but his work was at once taken up by his son.

By the invention of the compensating cylinders in connection with the direct-acting engine in 1886, it may safely be said that the second "great hydraulic invention" was made; and coming at a time when the crank-and-fly-wheel engine had been simplified, cheapened and improved by increasing the economic duty, this invention saved the direct-acting type, as it could now remain in the field with a claim of duty equal to any engine built.

With this advent came a new era in the history of the pumping engine, and the contest between the two types became more and more spirited as they met on a common ground, each claiming superiority as new records of individual engines were made.

The success of the Worthington engine abroad may safely be said to have been greater than any American machine.

It is to be regretted that Mr. Worthington, having wholly retired from business and every connection with the company bearing his name, must leave the further development of this engine to other hands and other brains, and we have taken up the work with the feeling that there is a large field for this type and that it may still reach even a higher point in efficiency.

In doing this, we have associated with us a number of Mr. Worthington's personal staff; one of whom, from the advent of the high-duty engine, has been in charge of his water-works department, and the other, under him, as chief designer in most all his larger plants.

In the construction of engines of the crank-and-fly-wheel type, we have engaged the services of an engineer long associated with the E. P. Allis Company in their department of pumping engines.

Duty.—The fuel economy of a pumping engine, or the work it is able to accomplish on a given expenditure of heat, is expressed by the word "duty." In 1778 Bolton & Watt introduced their engines into the mines of Cornwall, often taking their pay out of profits resulting from saving in fuel, so a standard of performance was necessary. This was established by Watt, who gave it the name of "duty."

Steam Indicator is the apparatus by means of which steam and water cards are taken.

High-Pressure Engine is a form of engine that has only one steam cylinder, and the steam used at full boiler pressure throughout the entire stroke.

Compound Engine is a form of engine that has two steam cylinders, a high and low pressure. After steam has been used in the high-pressure cylinder, it passes to the low-pressure, where it is again used, then exhausted into the open air or a condenser. (See Condenser.)

Cross Compound Engine is a form of engine with the high and low-pressure cylinders placed side by side, joined to separate water plungers.

Triple Expansion Engine is a form of engine that has three steam cylinders, a high, an intermediate and a low-pressure cylinder, and the steam is used successively in each cylinder before passing to the next, the same as in the compound engine.

Crank and Fly-Wheel Engine is that form of engine where a fly wheel is interposed, driven by a crank connected to the piston rod. The function of this wheel is to assist the steam piston to the completion of the stroke. The energy given the wheel at the beginning of the stroke is given off at the end, thus economizing in steam, as it enables the cut-off to be closed at an earlier point in the stroke.

Direct-Acting Engine is a form of engine where the steam pistons and water plunger are directly connected, and the steam pressure acting upon the steam pistons is exerting its power directly upon the water plunger.

Duplex Engine is a form of engine where two engines having water cylinders of the same size, and steam cylinders of equal size, are placed side by side. These engines working in unison, but moving in opposite directions, to insure a steady flow of water.

Tandem Engine is that form of compound or triple expansion engine where the steam cylinders are placed in line, with all steam pistons directly connected to one water plunger.

Power Pump is a form of pump which is driven by a power which is separate from the pump, such as a water or electric power.

High-Pressure Cylinder is the first cylinder receiving steam from the boiler, and at full boiler pressure.

Intermediate Cylinder is the second cylinder in a triple expansion engine, where the steam is used after leaving the high-pressure cylinder. The driving steam pressure in this cylinder is usually somewhat less than one-half the boiler pressure, and the area of its piston is from two and one-half to three times the area of the high-pressure cylinder.

Low-Pressure Cylinder is the third cylinder in a triple expansion and second in a compound engine, and receives its steam from the intermediate cylinder in the triple and from the high in the compound. The steam pressure in this cylinder is usually about one-sixth that of the initial pressure in the boilers, varying in proportion to the areas of the two pistons.

- 1915 – In a book published by the Christopher Sower Company of Philadelphia, on behalf of *The Association of Centenary Firms and Corporations of the United States*, giving the histories of the several members of that organization, it was stated that R. D. Wood & Company “has erected one of the largest single units for steam pumping machinery in the United States; to be seen at the California station of the City of Cincinnati, which has 125,000,000 gallons daily capacity.”
- 1920 – The Mays Landing mill was equipped with 58 cards, 649 looms, 15,296 ring spindles, 6 boilers and 4 water wheels and produced towelling, napkins and diaper cloths; the Millville Manufacturing Company was equipped with 101 cards, 1,057 looms, 38,112 ring and 10,688 mule spindles, and dyeing and finishing works, producing twills, pocketings, cambrics, long cloths, sateens, fancies, and , skein yarns for market
- 1921 – R. D. Wood & Company sold the Camden Iron Works
- 1926 – George Wood died
- 1934 – With the death of Walter Wood, all of the remaining iron foundry business left the Wood family, although the successors adopted the name R. D. Wood Company as a tribute to that business’ founder
- 1949 – Competition from southern cotton mills after World War II, along with the introduction of synthetic fibers and disposable diapers, caused difficulties for the Wood’s cotton industry, leading to the closure of the Mays Landing works
- 1953 – A pamphlet published in celebration of the 150th anniversary of the R. D. Wood Company stated: "The various mills and foundries of R. D. Wood & Company at Millville were disposed of by 1900. The original textile mill on the Maurice River still functions under different management and ownership, but the impression left by R. D. Wood on Millville is indelible. The Canal and dam are monuments to his vision . . ."
- 1958 – Spinning and weaving operations were discontinued at Millville
- 1962 – The Amstead Industries’ subsidiary Griffin Pipe acquired the R. D. Wood Company’s Florence foundry in 1962. The Griffin Pipe site encompassed 218 acres and supplied New England and the mid-Atlantic region with ductile iron pressure pipe for potable water transmission and wastewater collection

R. D. WOOD & CO.

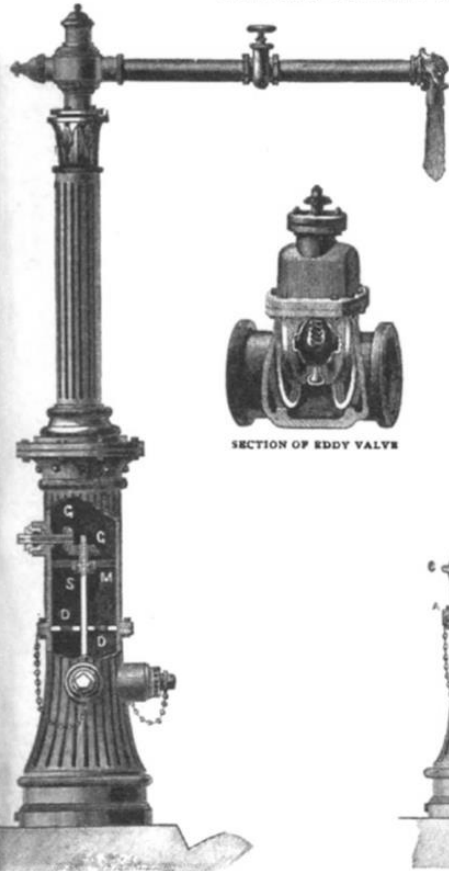
400 CHESTNUT STREET, . . . PHILADELPHIA, PA.

MATHEWS'

PATENT FIRE HYDRANTS

SINGLE AND DOUBLE-VALVE

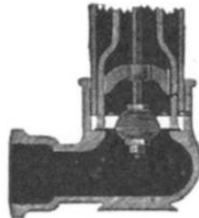
WITH AND WITHOUT INDEPENDENT NOZZLE-VALVES.



HYDRANT WITH WATER CRANE
ATTACHMENT



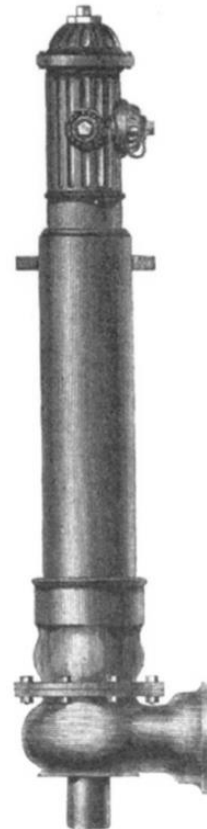
SECTION OF EDDY VALVE



SECTION OF
SINGLE-VALVE HYDRANT



WITHOUT ATTACHMENT
FOR WINTER USE



DOUBLE VALVE
HYDRANT

EDDY DOUBLE-DISC VALVES.

Foundries and Works: Millville, Florence and Camden, N. J.

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Advertisement from Engineering News' *Statistical Tables of American Water Works*, 1887

- 1963 – The Kennedy Valve Manufacturing Company purchased the rights to the Mathews hydrant from the R.D. Wood Company
- 1963 – The Millville Manufacturing Company's finishing works closed its doors
- 1968 – The dairy farm at Wawa, Pennsylvania, purchased as a summer retreat and hobby by Richard D. Wood's son George in 1892, was merged with the remaining Wood Company interests, and renamed Wawa, Inc. in 1974
- 2009 – Griffin Pipe closed the Florence foundry.
- 2017 – Wawa, Inc., still associated with the Wood family, continues to thrive as a chain of convenience stores providing dairy products, delicatessen items, gasoline and other products to east coast communities from New Jersey to Florida
- 2017 – The 48" cast iron water mains made by R. D. Wood & Company continue to carry water across the salt marshes to Atlantic City



48" Cast Iron Water Mains to
Atlantic City, 2002.



Early 20th Century



Today

Appendices

After the tragic death of her daughter Caroline, Julianna Wood published a memorial volume titled *Recollections of our Dear Carrie*. The book reproduced journal entries and letters written by Caroline throughout her life. The following entries record 17 year old Caroline's thoughts regarding her visit to Millville in April, 1856.

p. 179

"In reviewing the month of April in her journal, she says: In April I went with Father and Mother, Julia and Walter in the carriage to Millville. I enjoyed the ride down though the scenery is not fine, yet everything had the freshness of spring. The day was clear, and I like to go on such excursions with Father and Mother. Father seems so different from when we see him in the short intervals of business – enjoys the country so much, and encourages pleasant talk, and Mother enjoys having him to herself. I always like to be with old married people, the affection is so free from restraint and so full of confidence. I have seen so many pleasant scenes between Uncle Doctor and Aunt Caroline. I think I never saw a more exquisite smile than that on Aunt C.'s face on our return from Greenwich last fall, when she had been absent from uncle for four weeks. I quite agree with Miss Bremer that gentlemen never appear so loveable as after marriage, which calls forth all the good qualities a man may have.

As I had never allowed myself to form any but disagreeable pictures of Millville, I was quite delighted with the place. "The Mansion" house struck me as barn-like at first, as it needs porches and green grass,* but on going in I found such a nice parlor, and so

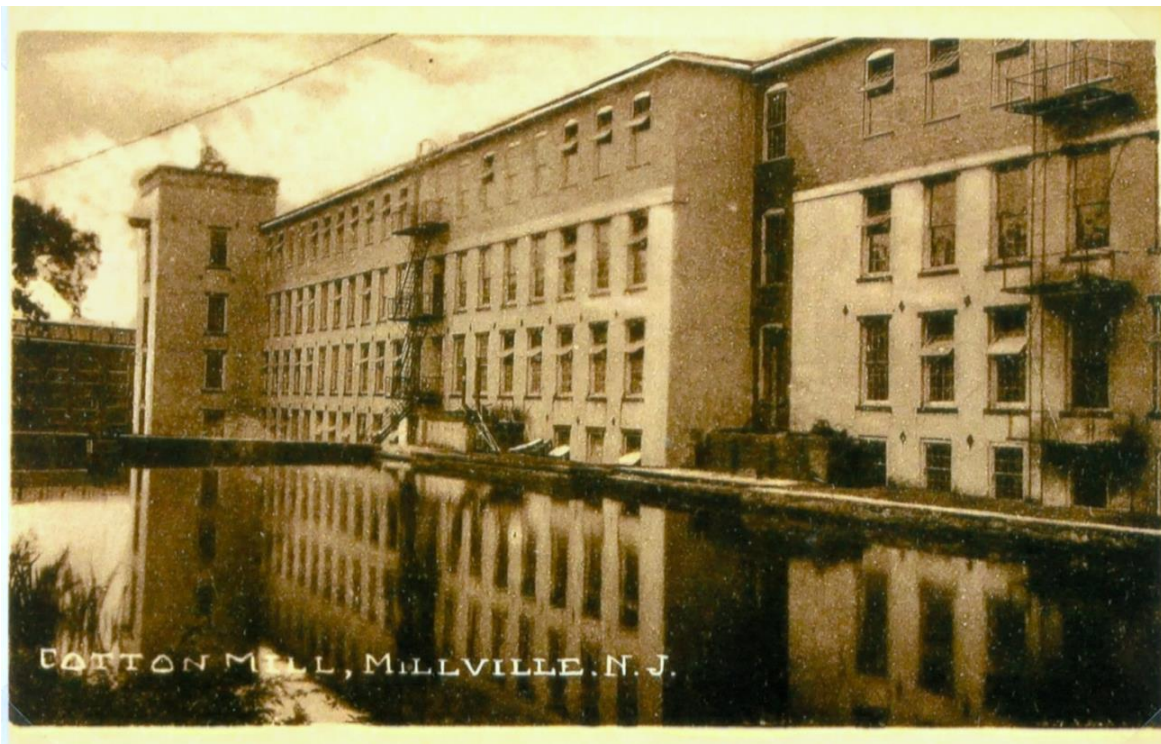
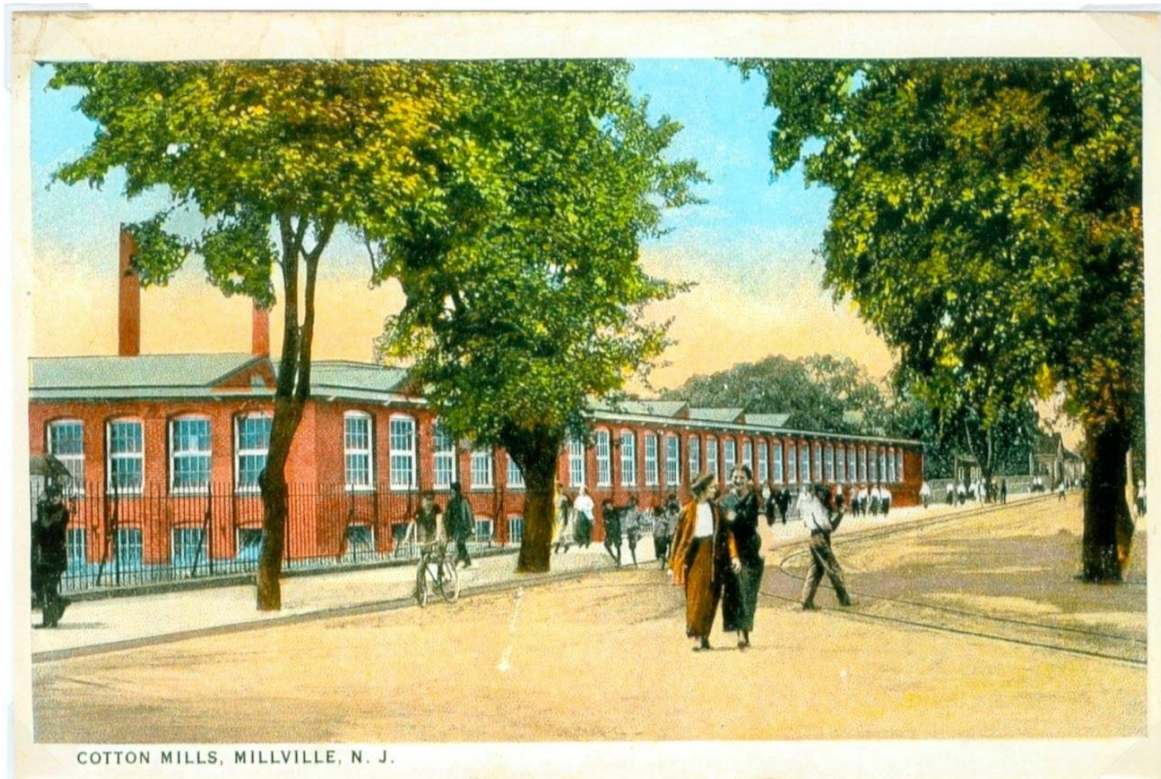
* These have been added, and it is now the residence of her brother George. 1868.

p. 180

many other large rooms, that I changed my mind. The Mill, which is directly opposite, but partly hidden by a grove of trees, I consider very imposing. Father took me all over it. First we went down to the cellar to see the great wheel, and the way in which the motive power is communicated to the machinery. As Father opened the door to let us see it, he said, "Now, I think there is something sublime in that, almost equal to Niagara." And so it is very grand the constant slow revolving and dash of the great wheel. In the first floor are the looms, in the second, the carding machines, and separated from these by iron doors is a room where the picking is done by four machines, two of each kind. In the third story are the spinning machines, some of the spinning is done by mules, and some by ring frames; in the garret are four rooms, one for starching the threads spun below, one for harnessing the threads, or putting them

into the reeds preparatory to, and the last process before weaving. This is done entirely by hand. One little room for making starch, and in the fourth and largest, are more spinning machines. I was really delighted with the Mill. Everything is so clean and so

free from bad smells, the windows nicely curtained, even the ceiling painted white; and there appears to be every precaution taken against fire. I had never seen so much beautiful machinery. I cannot describe the delight it gave me, everything seemed perfect. And to think that one great wheel could keep



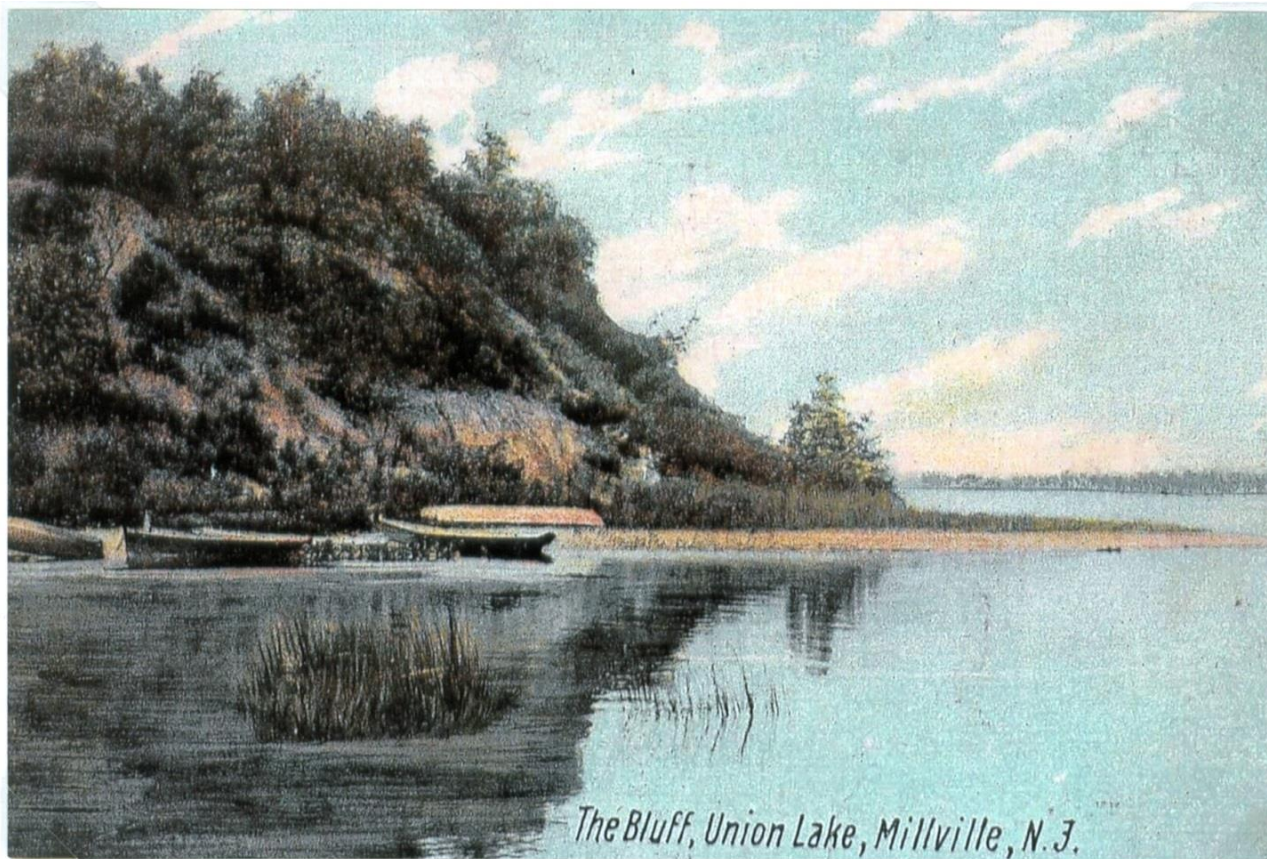
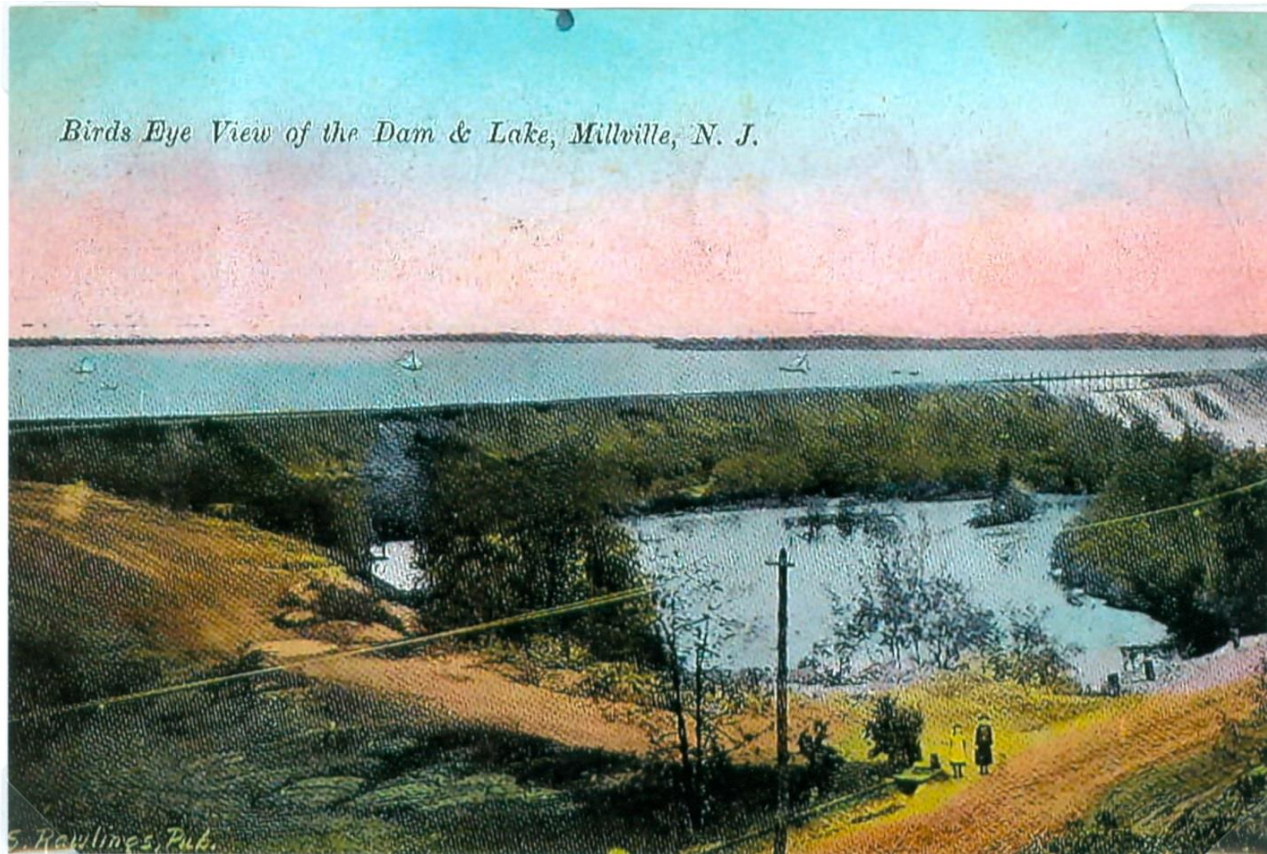
p. 181

in motion these thousands of others moving so swiftly about. I feel as if I should dearly love to understand it thoroughly.* This perfection of the mechanical surpasses the beauty of fine arts almost. But in the fine arts one piece of workmanship is more entirely the effect of the genius and power of one mind, while in machinery I suppose many minds have been engaged in bringing one machine to perfection. Many minds—at least—have expended thought to bring it to its present perfection. But I suppose there is no comparison between the two arts, they require such different qualities of mind. Ruskin says however, that the ideas of power are the most pleasurable excited by works of art. I am sure those ideas are wonderfully excited by seeing such machinery. I went into the factory twice while the machinery was in motion, and once when the hands were dismissed. After having visited it during all the noise and clatter, the hush seemed like the quiet of desolation. I do not think I was ever more forcibly struck by the absence of sound. I visited the grist and saw mills—the foundry where I saw the beautiful sight of liquid iron, the two stores and the boarding house. Father drove us all to the Union where the canal joins the Maurice river. Here there is a saw mill and a bridge, and the water has the

* To do so, she said, she would be willing to work in the mill for three months.

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appearance of a large lake more than of a river. These features are beautifully seen from a hill so steep that it forms almost a bluff, descending to the water. Beyond the river and canal, almost as far as you can see, stretches the low wood — mostly pines — with their dark green peaks — of the Jersey swamps, and there is hardly a house in sight. I admired the view very much. So different it was from any thing I had seen in Pennsylvania, where everything is so cultivated, the woods rounded and farm houses appearing in every direction. Walter and I got out of the carriage and walked home. . . . There are many neat frame houses springing up around the works. Some put up by the head workman, who delight to show them off. Father is building a great number to rent, which are very snug and superior to those of most factory villages, as they stand separately, each having a little garden. The prominent founders are now much interested in building a Methodist Church, and one of them came to talk to Father and Mother about the Sunday school. He talked and behaved very respectfully, without being in the least cringing."



To her brother Edward:

Philadelphia May 30th '56.

My Dear Edward.

I am very much obliged to thee for always thinking of me on my birth day sufficiently to make it manifest by letter. Do not think I shall not always be glad to be reminded of it in the same way, for I never expect to be ashamed of my years, as they are things one cannot avoid if one would. If thee keeps as strict an account of all our birthdays as of mine thee will remember that today Artie is three years old. He seems to thrive well upon them.

I was at Millville not long ago. Father, Mother, Julia, Wally and I. We had quite a nice long visit to the renowned place. As I had always pictured to myself a disagreeable dirty manufacturing village, I was very much pleased with it, though still, I do not think it would be much without the mill, which I admire exceedingly. I went all over it three different times. Twice while in operation, and once when the machinery was at rest. This latter is most beautiful, is it not? I made some acquaintance with the foundry, and I weighed one hundred and three in the Grist Mill. Has thee ever been to "The Union?" The scenery there is really fine, such a pretty sheet of water, etc. We all drove there, and Walter and I got out and walked home, a distance of two miles along the Canal. A thing I never wish to repeat—in the middle of the day at least.—There was of course no shade from the Canal side of the path, and none from the low trees of the swamp on the other. The sand was hot and very deep; and I and my clothes were never so dirty as when we reached home. How many nice little houses are going up. Of course I made a good many acquaintances, among others, that of your friend David Biggs.*

Father, Mother, sister, and Julia went to New York and returned yesterday. They stayed at St. Nicholas, and seem to have enjoyed trotting about very much. Julia was enchanted and did not want to come back. Did thee notice some photographic views of Paris at the Academy. They belong to Mr. J. Harrison. He has a collection of equally fine ones of Rome, which he was kind enough to lend us, and I have enjoyed examining them very much. I must bid good bye for the present. Love to Geo. and believe me

Thy affectionate Sister

* One of the old hands—a moulder."



Julianna Randolph Wood at age 38



Caroline Wood at age 10

An example of the Wood family's presence in Philadelphia appeared in the 1906 edition of *The Directory of Directors in the City of Philadelphia*, on pages 162-163:

“Wood, Edward R., 400 Chestnut Street
Millville Improvement Co., President and Director
South Jersey Land & Transportation Co., President and Director
Shade Gap Railroad Co., President and Director
Philadelphia Board of Trade, Executive Council
East Broad Top Railroad & Coal Co., Director
Rockhill Iron & Coal Co., Director.

Wood, George, 400 Chestnut Street and 626 Chestnut Street
R. D. Wood & Co., Iron Founders
Millville Manufacturing Co., Cotton Goods, President and Director
May's Landing' Water Power Co., President and Director
Philadelphia Manufacturers' Mutual Fire Insurance Co., Vice-President and Director
The Philadelphia National Bank, Director
The Mutual Fire, Marine & Inland Insurance Co., Director
The Pennsylvania Railroad Co., Director
West Jersey & Seashore Railroad Co., Director
The Pennsylvania Steel Co., Director
Pennsylvania Steel Co., of New Jersey, Director
East Broad Top Railroad & Coal Co., Director
Rockhill Iron & Coal Co., Director

Wood, Grahame, 626 Chestnut Street, and Boston, Mass.
Kremer & Sturbing, Dry Goods
Millville Manufacturing Co., Cotton Goods, Director

Wood, Richard, 400 Chestnut Street
R. D. Wood & Co., Iron Founders
The Provident Life & Trust Co., of Philadelphia, Director
May's Landing Water Power Co., Director
Philadelphia Board of Trade, Treasurer
Haverford College, Manager
Hospital of the University of Pennsylvania, Manager

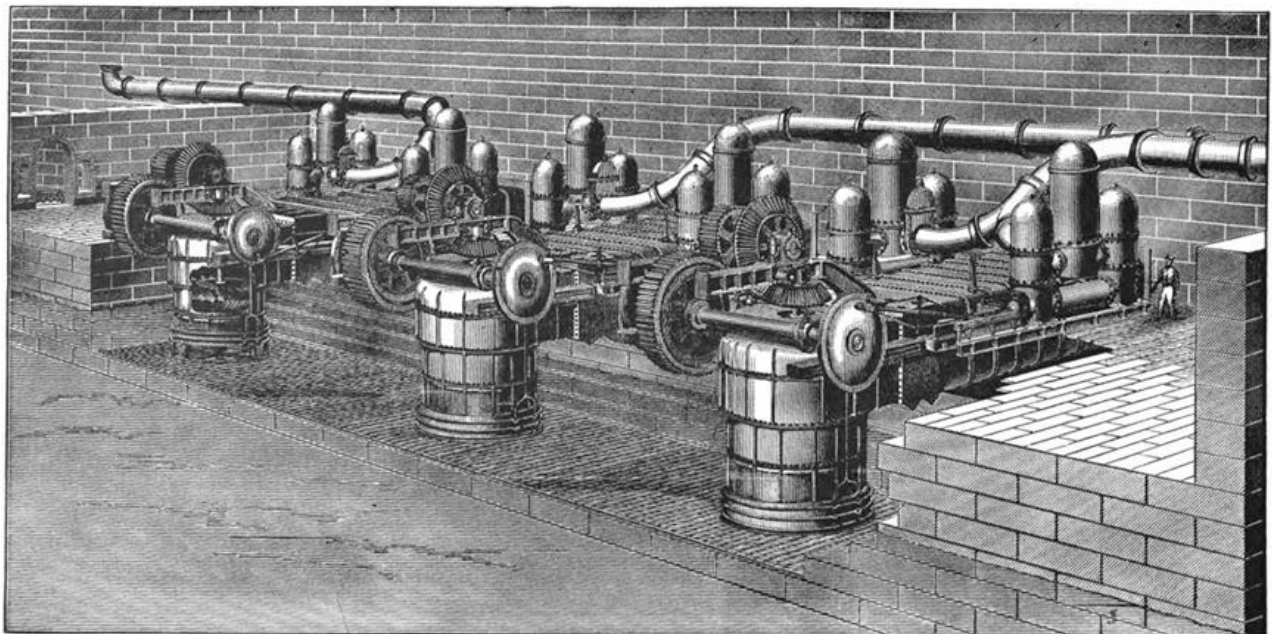
Wood, Richard D., 626 Chestnut Street
Millville Manufacturing Co., Cotton Goods, Vice-President, Secretary and Director

Wood, Stuart, 400 Chestnut Street
R. D. Wood & Co., Iron Founders
Market Street National Bank
Mortgage Trust Co., of Pennsylvania, Director
Macon Gas Light & Water Co., Treasurer and Director
Tampa Water Works Co., Treasurer and Director
May's Landing Water Power Co., Director

Wood, Walter, 400 Chestnut Street
R. D. Wood & Co., Iron Founders
Trades League of Philadelphia, Director
Philadelphia Bourse, Director
National State Bank (Camden, N. J.), Director
Haverford College, Manager

*From Water and Gas Works Appliances Manufactured by R. D. Wood & Co., Engineers,
Founders and Machinists, R. D. Wood & Co., Philadelphia, 1886:*

FIG. 1.



FAIRMOUNT PUMPING MACHINERY, PHILADELPHIA.—CONSTRUCTED BY EMILE GREYELIN, M. E.
FROM GENERAL DESIGN BY FREDERICK GRAFF, CHIEF ENGINEER.

Page 21:

TURBINES, PUMPS, AND GEARING.
HYDRAULIC MACHINERY

Fairmount Pumps and Turbines – The hydraulic pumping machinery erected at the Fairmount station in Philadelphia, by our engineer, Mr. Emile Geyelin, from general designs by Frederick Graff, chief engineer, are the largest of their kind in America. A portion of the works only is shown in Fig. 1. Works similar in design, and for like service, have also been erected under the direction of our engineer in several other cities.

Page 24:

TESTIMONIALS

Philadelphia, Feb. 27, 1873

E. Geyelin, Esq.:

Dear Sir – I have great pleasure in giving my testimony in favor of the Jonval Turbine as constructed by you for use in water-works for pumping water.

The first wheel made by you for that purpose was constructed under contract with you for the Fairmount Water works, and was started to work Dec. 1851. That wheel has been running almost constantly ever since sometimes running for a month without an hour s stoppage. The wheel drives a double acting force-pump, 16 inch diameter, 6 feet stroke, running 12 to 14 revolutions per minute, raising water about 96 feet high.

Since that wheel was started, we have put in six other wheels, of the same kind, but much larger in size, those last built being 10 feet 3 inches diameter each, and driving two double acting pumps, 22 inches diameter each, and 6 ft. stroke.

I have no hesitation in saying that these wheels are perfectly adapted to the work of pumping water, and that they are the most perfect and reliable machines for the purpose, driven by water, that I have seen.

The workmanship upon them is of the best kind, and the proportions for strength and power is highly creditable. I feel certain that this will be fully endorsed by all unprejudiced mechanics.

Very truly yours,
(Signed) Frederic Graff,
Chief Engineer Water Dept.

As mentioned in preceding entries, R. D. Wood & Company played a significant role in the development of Millville. The following entries give additional examples of the Wood family's symbiosis with Millville.

The Manual of American Water Works, Moses Nelson Baker, 1889, page 206:

"MILLVILLE, Cumberland Co., (Pop., 7,660; est., 8,000.) On Maurice River, on level ground. Manufactures cotton, iron and glass. Settled in 1800; incorp. village in '66. No sewers. Has electric lights.

History – Built in '78 by Millville Water Co. Engr., Emile Geyelin. Contrs. R. D. Wood & Co., Philadelphia, Pa.

Water Supply – Maurice River, pumping from impounding reservoir to stand-pipe.

Dam and Reservoir – Cap. not given; area, 1,100 acres. Dam: ½ mile long, 25 ft. high, 20 ft. wide at top, and 60 ft. at bottom.

Pumping Machinery – Dy. cap., 2,000,000 galls.; 1,750,000 Worthington water power, of 10 in. bore, lifts water 128 ft.

Stand Pipe – Cap., 10,000 galls.; 12 x 130 ft.; of ¾ in. plate iron.

Distribution – Mains, c. i., 8 miles. Services, lead. Taps, 540. Meters, 7. Hydrants, Mathews, 67. Valves, kind. do. Pressure recording gauge, Edson. Consumption, 25,000 galls. Pressure: Ordinary, 45 lbs. Fire, 53 lbs.

Financial – Cost, \$70,000. Cap stock \$24,900 No debt Ann op exp withheld est \$1,500 Ann rev consumers withheld est \$10,000 city \$2,460 Hydrant rental about \$35.

Management – Prest., Geo. Wood; Secy., N. G. Livermore. Treas., Walter Wood. Supt., Reuben Meredith."

The Manual of American Water Works, Moses Nelson Baker, 1897, pages 156 & 157:

"MILLVILLE, Cumberland Co. (10,002) Built in '78 by Millville Water Co.

FRANCHISE – 99 yrs. from '78. Rates are subject to regulation by city. Co. is exempt from local taxes, but receives no compensation for public service. No legal difficulties.

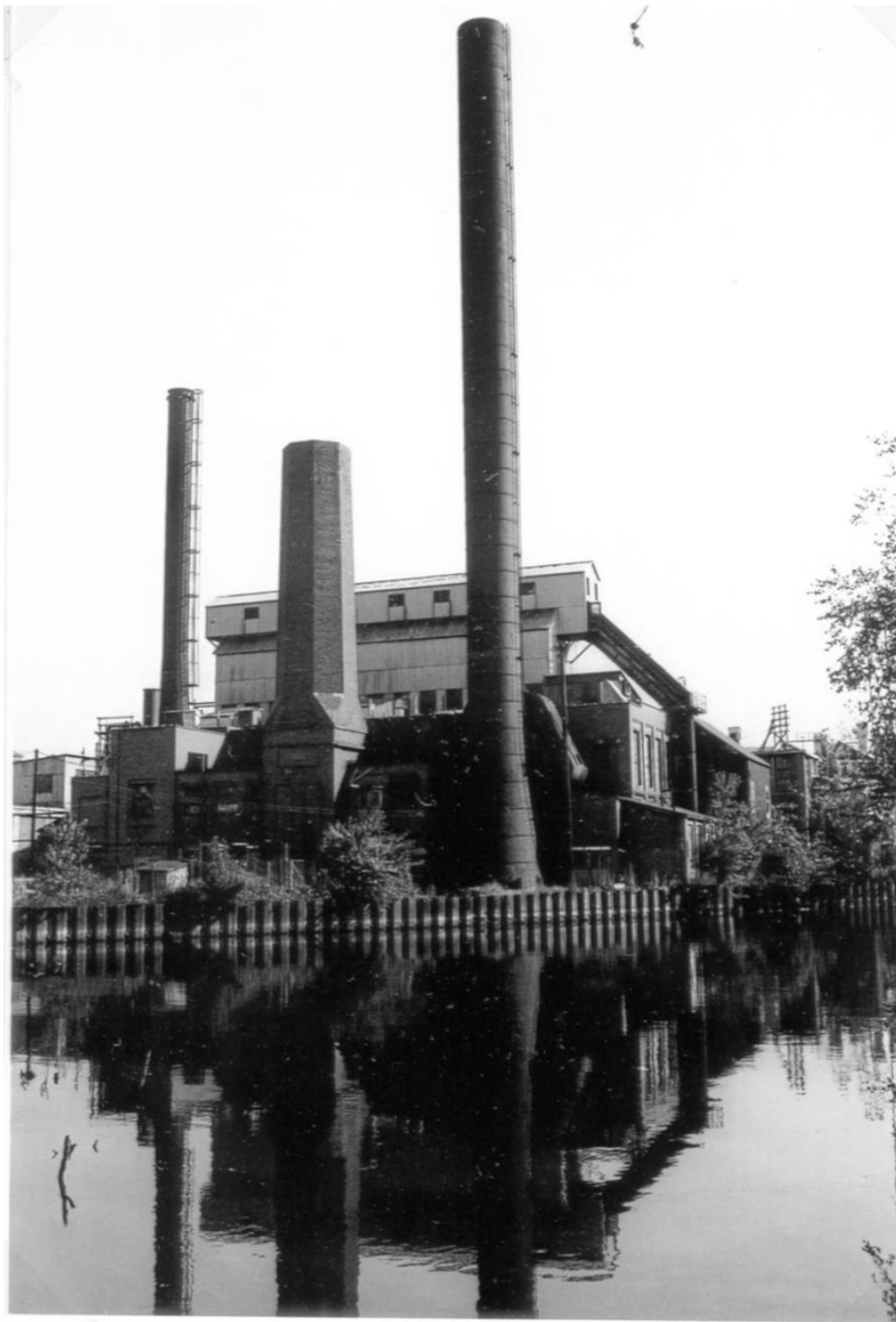
SUPPLY – Wells, pumping to stand pipe. PUMPS – Wood water power and 1,250,000 gallon Worthington simple high pressure. RESERVOIR – Area 1,100 acres; formed by dam ½ mile long, 25 ft. high. STAND PIPE – Cap. 110,000 galls. iron, 12x132 ft. FISCAL

YEAR CLOSED – March 1. DISTRIBUTION – Mains, 10 miles; cost extensions met by I income. Taps, 700; made by Co. Services, lead; paid for by consumer. Hydrants,

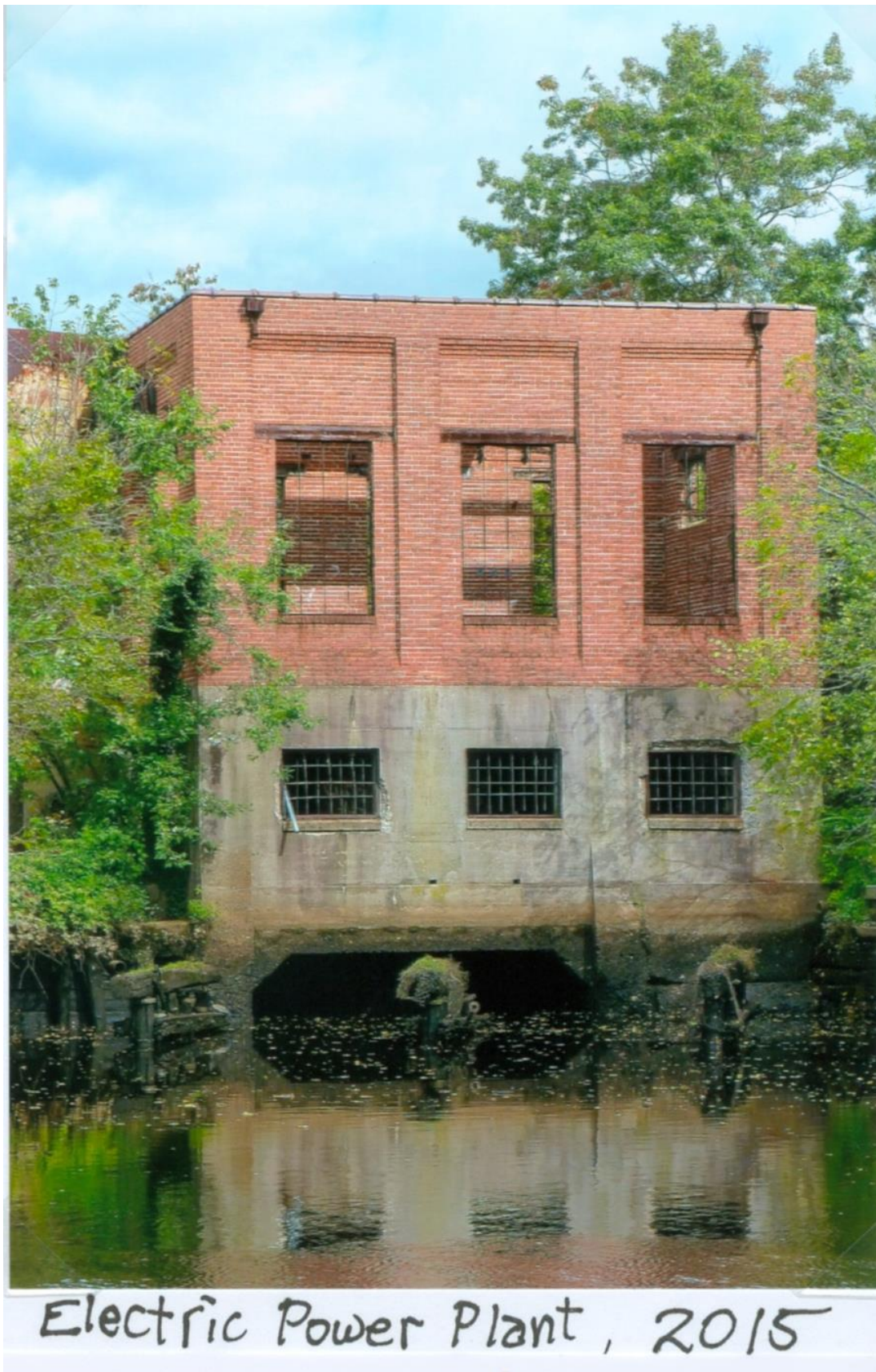
public, 66; private, 25. CONSUMPTION – (Galls.) max., 1,000,000; min., 300,000.

PRESSURE – Ordinary, 45 lbs.; fire, 54 lbs. FINANCIAL – Cost, \$75,000. Cap. Stock; authorized, \$25,000, paid up, \$20,000. MANAGEMENT – Prest., Geo. Wood; Secy., N. G. Livermore; Treas., W. D. Kemble; Supt., R. W. Meredith. Rept. from proprietors.

SEWERS – None. REFERENCE – Eng. News., Feb. 25, '82."



Stacks at Millville
Manufacturing Co., 1968



Brown's Directory of American Gas Companies, 1913, page 411:

"Millville Gas Light Co., Millville.
Office, 213 N. High St., Millville, N. J.
Capital stock, \$200,000.
President, Francis Reeves.
Secretary, N. G. Livermore.
Treasurer, Walter Wood, 400 Chestnut St.
Philadelphia, Pa.
Manager, S. J. Franklin.
Supt. and pur. agent, S. J. Franklin.

COMPANIES OPERATED

Millville Gas Light Co., Millville, N. J.
Citizen's Gas Co., Landis Township, N. J.
Pittsgrove Gas Co., Pittsgrove Township, N. J.
Deerfield Gas Co., Deerfield Township, N. J.
Fairfield Gas Co., Fairfield Township, N. J.
Millville Water Co., Millville, N. J.
Millville Electric Light Co., Millville, N. J.
Citizens Gas Co., Vineland, N. J.
Maurice River Gas Co., Maurice River Township N. J.
Commercial Gas Co., Commercial Township, N. J.
Downe Township Gas Co., Downe Township, N. J.
Lawrence Gas Co., Lawrence Township, N. J."

Moody's Analysis of Investments, John Moody, 1922, Page 1172:

"MILLVILLE ELECTRIC LIGHT Co.: Incorporated Dec. 11, 1891 in New Jersey to supply electric light and power to Millville, N. J. Serves a population of 15,000.
MANAGEMENT: OFFICERS: Wm. C. Buell, Pres.; Walter Wood, Vice-Pres. and Treas.; C. M. Nixon, Sec. MAIN OFFICE: Millville, N. J.

MILLVILLE TRACTION CO.: Incorporated under New Jersey laws in 1894. Absorbed the Millville Rapid Transit Co. in 1901, which it previously leased. Line operated in Millville, Vineland and Landis, N. J. Length of track, 11.21 miles; 18 cars.
MANAGEMENT: OFFICERS: George Wood, Pres., Philadelphia; R. D. Wood, Vice-Pres.; D. C. Lewis, Treas; H. S. Haines, Sec., G. H. Thomas, Pur. Agt., W. B. Rauch, Gen. Mgr., Millville, N. J.
DIRECTORS: D. C. Lewis, G. H. Thomas, J. R. Radcliffe, Millville, N. J.; W. H. Bacon, Bridgeton, N. J.; George Wood, R. D. Wood, Graham Wood, R. M. Williams, Philadelphia; J. H. Dowler, Vineland, N. J.
ANNUAL MEETING: First Friday in March.
OFFICE: Millville, N. J.

MILLVILLE WATER CO.: Incorporated in 1878, in New Jersey, operations commenced in 1880. Serves Millville, N. J. Miles of mains, 20. Number of consumers, 2,500. Population served, about 15,000.

MANAGEMENT: OFFICERS: S. J. Franklin, Pres. and Gen. Mgr.; Walter Wood, Vice-Pres. and Treas., Philadelphia, Pa.; Chas. M. Nixon, Sec., Millville, N. J.

DIRECTORS: Walter Wood, S. J. Franklin, Wm. C. Buell, C. C. Reeves, Jr., Walter Owen.

OFFICE: Millville, N. J."



Pole Tag from the Millville Electric Light Company, Millville, New Jersey



**The Association of
Centenary Firms and Corporations
of the United States**

Dinner

at the

Bellevue-Stratford

Thursday, June 6, 1907

Board of Stewards

MR. BURNET LANDRETH

MR. FRANCIS JORDAN, Jr.

MR. T. MORRIS PEROT, Jr.

MR. SCHUYLER SCHIEFFELIN

MR. P. S. du PONT

BURNET LANDRETH, President

FRANCIS JORDAN, Jr., Sec. and Treas.

Members

PAST AND PRESENT

OF THE

ASSOCIATION OF CENTENARY FIRMS

		Founded
Francis Perot's Sons Malting Company.....	Philadelphia,	1687
*James M. Willcox Paper Company.....	Philadelphia,	1718
The Christopher Sower Publishing Company.....	Philadelphia,	1731
William Lea & Sons, Brandywine Flour Mills.....	Wilmington, Del.,	1742
R. A. & J. J. Williams Co., Lumber.....	Philadelphia,	1751
Millbourne Flour Mills.....	Philadelphia,	1757
*Washington Butcher's Sons, Provisions.....	Philadelphia,	1760
George M. Steinman & Co., Hardware.....	Lancaster, Pa.,	1760
Wetherill & Brother, White Lead.....	Philadelphia,	1762
A. H. Hews & Co., Earthenware.....	Cambridge, Mass.,	1765
Charles Newman & Co., Wool.....	Albany, N. Y.,	1768
Thomas Williams, Jr., & Co.....	Philadelphia,	1768
H. C. Demuth, Tobaccos.....	Lancaster, Pa.,	1770
Patapasco Flouring Mills.....	Baltimore, Md.,	1771
George W. Bush & Sons Company, Transportation.....	Wilmington, Del.,	1774
Job T. Pugh, Augers.....	Philadelphia,	1774
Whitney Glass Works.....	Glasboro, N. J.,	1775
W. H. & F. Jordan, Jr., Importers.....	Philadelphia,	1778
Sigmund A. Heinitz, Drugs.....	Lancaster, Pa.,	1780
Schieffelin & Co., Chemicals.....	New York, N. Y.,	1781
*W. E. Garrett & Sons, Tobaccos.....	Philadelphia,	1782
D. Landreth Seed Company.....	Philadelphia,	1784
Henry Carey Baird & Company, Publishers.....	Philadelphia,	1785
Lea Brothers & Co., Publishers.....	Philadelphia,	1785
Pierston & Co., Iron Merchants.....	New York, N. Y.,	1787
William Bond & Son, Chronometers.....	Boston, Mass.,	1788
Nathan Trotter & Co., Tin Merchants.....	Philadelphia,	1790
*Harrison Brothers & Co., White Lead.....	Philadelphia,	1793
Leonard Bostwick.....	New Haven, Conn.,	1794
Warner & Co., Transportation.....	Wilmington, Del.,	1794
Walter H. Jenkins, General Store.....	Gwynedd, Pa.,	1794
Miner-Hillard Milling Company.....	Wilkes-Barre, Pa.,	1795
J. Gibson McIlvain, Lumber.....	Philadelphia,	1798
J. M. Thorburn & Co., Seeds.....	New York, N. Y.,	1802
E. I. du Pont, Gun Powder.....	Wilmington, Del.,	1802
R. D. Wood & Co., Iron Merchants.....	Philadelphia,	1803
Samuel T. Freeman & Co., Auctioneers.....	Philadelphia,	1805
George D. Wetherill & Co., White Lead.....	Philadelphia,	1807

Those four establishments marked * have since joining the Association either dissolved or so changed that descendants of the founders have ceased to be active in the administration.

Seating List

Burnet Landreth
1784

T. Morris Perot, Jr.
1687

Ellison Perot
1687

Preston Lea
1742

Clement N. Williams
1751

R. S. Dewes
1757

William H. Wetherill
1762

George Steinman
1764

Thomas Williams
1768

H. C. Demuth
1770

W. H. Hayward
1771

Lewis P. Bush
1774

Job Pugh
1774

Stanley Jordan
1778

Schuyler Schieffelin
1781

Wm. Cranch Bond
1783

Burnet Landreth, Jr.
1784

Leonard Bostwick
1794

Alfred Warner
1794

Asher Miner
1794

Walter H. Jenkins
1794

Hugh McIlvain
1798

J. Gibson McIlvain
1798

F. W. Bruggerhof
1802

Stewart Wood
1803

Walter Wood
1803

Samuel T. Freeman
1805

Thomas Wetherill
1807

Francis Jordan, Jr.
1778

"Should auld acquaintance be forgot
And never brought to min' ?
Should auld acquaintance be forgot
And days o' auld lang fyne ?
For auld lang fyne, my dear,
For auld lang fyne,
We'll take a cup o' kindness yet
For auld lang fyne."

M e n u

EIGHTEENTH ANNIVERSARY of the ASSOCIATION OF CENTENARY FIRMS

Sixth June, One Thousand Nine Hundred and Seven

Martini	Tid Bits and Augers
Jordan Olives	—
Moselle	New Haven Clams Mignonette
—	—
Madeira	Patapsco Clear Green Turtle
Perot's, 1687	—
—	Hors-d'Oeuvre a la Schieffelin
—	—
—	Wilkesbarre Boned Brook Trout in Jelly
—	Grape Fruit Salad, Wetherill dressing
—	—
Champagne, Du Pont de Nemour, Vintage 1802	Sweetbread Warner
—	—
—	Saddle of Bostwick Lamb
—	Wilmington Asparagus
—	Thorburn Potatoes
—	—
Bonds' Microscopic Cigarettes	Millbourne Cherry Punch
—	—
—	Pigs Trotters, in Sower Jelly
—	—
—	Wood Plover
—	Philadelphia Stuffed Peppers
—	—
—	Todd Ham
—	Landreth Romaine Salad
—	—
—	Bush Strawberries
—	Fancy Cakes, Brandywine Mills Flour
—	—
—	Steinman Lancaster Cheese
—	Pierfon's Ironclad Crackers
—	Williams' Hickory Nuts
—	—
McIlvain's Assorted Cordials	Freeman Special Coffee
Demuth's Stogies rolled in 1770	—



Richard Davis Wood



Curb box cover from the Millville Water Company

**** Note**

Millville Manufacturing Company on Maurice River at Millville (N.J.)

Date: 1929-09-24

Hagley ID: 70_200_04741

Victor Dallin Aerial Survey collection (Accession 1970.200), Audiovisual Collections and Digital Initiatives Department, Hagley Museum and Library, Wilmington, DE 19807

***** Note**

Lake at Millville, New Jersey

Date: 1929-09-24

Hagley ID: 70_200_04749

Victor Dallin Aerial Survey collection (Accession 1970.200), Audiovisual Collections and Digital Initiatives Department, Hagley Museum and Library, Wilmington, DE 19807