Guide to the William R. Hutton Papers

by Lindsay Osmun.

2011

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Collection Overview

Repository: Archives Center, National Museum of American History

Creator: Hutton, William R., 1826-1901

Title: William R. Hutton Papers

Dates: 1830-1965

Quantity: 30 cubic feet (32 boxes, 21 oversize folders)

Abstract: The papers document the life and work of William R. Hutton, a civil engineer during the late 1800s to the early 1900s. Materials include diaries, notebooks, correspondence, letterpress copy book, printed materials, publications, specifications, photographs, drawings, and maps that document the construction of several architectural and engineering projects during this period. Most notable are the records containing information related to the construction of the Chesapeake and Ohio Canal, Hudson River Tunnel, the Washington Aqueduct, the Kanawha River Canal, and the Washington/Harlem River Bridge. There are also several records about railroads in the state of Maryland, the District of Columbia and elsewhere, including the Western Maryland Railroad, Baltimore and Ohio Railroad, Colorado Midlands Railway, Baltimore and Drum Point Railroad, the Northern Adirondack Railroad, and the Pittsfield and Williamstown Railroad. The records can be used to track the progression of these projects, and engineering innovation during the late 1800s to the early 1900s.

Language: Some materials are in Dutch, French, German, Italian, and Spanish.

Administrative Information

Provenance Information

The William R. Hutton papers were initially deposited at the Division of Mechanical and Civil Engineering, now known as the Division of Work and Industry, National Museum of American History in June and September, 1965 and January, April, and May, 1966 and March 1974. They were acquired from four donor sources: Mr. and Mrs. James J. Madine, a relative of Hutton's and last owners of the Woodlands estate, the Department of Forests and Parks, Maryland, Louis Fischer, and Mr. and Mrs. Mayo S. Stuntz. The condition of the papers upon acquisition is noted in the source file. Papers from the Woodlands estate were said to have been located "all over the floor in complete disarray" accounting for the often damaged condition of many of the records. There was also some doubt expressed about the legitimacy of Fischer's ownership of the papers, as the Woodlands estate was missing both doors and window frames and was therefore not secure. Parts of the collection may have also been auctioned off (possibly by the Madines) prior to their donation.

Papers relating to the Chesapeake and Ohio Canal, Woodlands, Guard Lock and Aqueduct at Seneca, Baltimore and Ohio Railroad were donated to the Montgomery County Historical Society in May, 1965.
Correspondence, drawings, and a proposal for a screw steam canal boat were loaned to the U.S. National Park Service in May 1970.

The collection was transferred to the Archives Center from Division of Work and Industry, 2006.

Related Material

Materials in the Archives Center

The Montgomery C. Meigs Papers, 1870-1890, (AC0987). Contains materials relating to the construction of the Washington Aqueduct including a book of drawings illustrating reservoirs, tunnels, culverts, and other structural elements, a Government Senate Document relating to construction progress, scrapbooks created by Meigs that include newspaper clippings about the Washington Aqueduct project, water supply, engineering projects, building construction, architecture and other subjects. Collection is currently unprocessed, but is available for research.

Materials in Other Organizations:


The collection contains 95 drawings, 13 letters, and 39 facsimile copies of letters and manuscripts. The illustrative material includes both watercolor and pencil drawings of California (including Los Angeles, Monterey, San Francisco, the New Almaden Quicksilver Mine, and the California missions), Baja California, Mexico, and Peru. There are also five pieces in the collection related to the author María Amparo Ruiz de Burton. In 1942, the Huntington Library published Glances at California 1847--853: Diaries and Letters of William Rich Hutton, Surveyor and California 1847--852: Drawings by William Rich Hutton.

The Hutton family papers are located at the Montgomery County Historical Society, Sween Library (see http://www.montgomeryhistory.org/sites/default/files/Family_Files.pdf).

The collection contains account books from the Woodlands estate, recipe books, livestock records, records of Mary Augusta Hutton (wife), Mary and Rose Hutton (daughters), newspaper clippings (including his obituary), correspondence, record books, deeds, bills and receipts, engineering papers, religious momentos (funeral service cards), and insurance papers.

Processing Information

Processed by Lindsay Osmun (intern), June-August, 2011; supervised by Alison Oswald, archivist.

Preferred Citation

Title and date of item, William R. Hutton Papers, dates, Archives Center, National Museum of American History, Smithsonian Institution, box number X, folder number XX, digital file number XXXXXXXX

Restrictions on Access

The collection is open for research.
Biographical Note

Not much is known about the history of William Rich Hutton outside of his role in architectural and engineering projects of the late 1800s and early 1900s. In many cases, he is spoken of only in reference to his projects, and the short biographies that have been written read more like a resume than a life story. Because of this lack of information, this note will focus on Hutton's professional accomplishments, but will attempt to make some comments on his personal life.

William Rich Hutton was born on March 21, 1826 in Washington, D.C., the eldest son of James Hutton (died 1843) and his wife, the former Salome Rich. He was educated at the Western Academy (Washington, D.C.) from 1837-1840 under George J. Abbot and then at Benjamin Hallowell's School in Alexandria, Virginia, where he received special training in mathematics, drawing, and surveying. Hutton began his professional career in California when he, along with his younger brother James, accompanied their uncle William Rich to work for the United States Army. His uncle was a paymaster for the army and Hutton became his clerk. They traveled around the new state paying the various platoons stationed there, but Hutton also occupied his time by drawing the landscapes and structures he saw in the settlements of Los Angeles, San Francisco, La Paz, Mazatlan, Santa Barbara, Monterey, San Pedro, San Diego, and Cape San Lucas. These drawings are now held by the Huntington Library in San Marino, California. Hutton held the position of clerk until the spring of 1849, and in July of that year he began working with Lieutenant Edward O.C. Ord and completed the first survey of Los Angeles and its surrounding pueblo lands and islands. Hutton continued surveying in California from 1850-1851. He was hired by William G. Dana to survey the Nipomo Ranch in San Luis Obispo County and also surveyed the ranches Santa Manuela and Huer-Huero, both owned by Francis Z. Branch. After his employment with Dana, he became the county surveyor for San Luis Obispo County, where he prepared the first survey and map of the region. He also continued to survey ranches for Captain John Wilson during this time. In August 1851, he resigned from his position as county surveyor and moved to Monterey where he worked as an assistant to Captain (later General) Henry W. Hallack, superintendent of the New Almaden Quicksilver Mine in Santa Clara County. He remained in this position until March, 1853 when he returned to Washington, D.C. by way of Mexico.

Hutton began his career as a civil engineer in Washington, D.C. He was first assigned to the position of assistant engineer on a survey of the projected Metropolitan Railroad in 1853, which was chartered to connect Washington, D.C. with the mainline of the Baltimore and Ohio Railroad. In 1855 he began his professional relationship with Montgomery C. Meigs when he was appointed to the position of assistant engineer on the Washington Aqueduct. He also served as division engineer on this project until construction was shut down in 1861 because of the outbreak of the Civil War. Fortunately for Hutton, the construction on the Aqueduct was resumed in 1862, and when Congress transferred the supervision of the aqueduct project from the War Department to the Department of the Interior, Hutton was made chief engineer. By the end of the Civil War, Hutton's reputation as a civil engineer was established.

During this decade Hutton also served as the chief engineer for the Annapolis Water Works (1866) and as chief engineer for one of his most famous projects, the Chesapeake and Ohio Canal (1869-1871). Although some historians minimize Hutton as just one of many engineers to work on the Chesapeake and Ohio Canal, he did make one major contribution to its construction: the Georgetown Canal Incline.
Perhaps the final effort of the Chesapeake and Ohio Canal company to compete with the emerging and fast expanding railroad, the Georgetown Incline was designed to allow canal boats to travel through the canal with low water levels and to alleviate canal congestion. Unfortunately, by the time the incline was completed use of the canal had decreased so significantly that it was no longer needed to help control traffic (7). Despite this, Hutton continued to work as a consulting engineer for the Chesapeake and Ohio Canal Company until 1881, when he was let go because of the dwindling fortunes of the company (7).

In the 1870s and 1880s Hutton was busy with several engineering projects. During 1871-1873, he was the chief engineer in the completion of the Western Maryland Railroad to Hagerstown and Williamsport (9). He also practiced as an architect with his brother, the prominent Baltimore architect Nathaniel Henry Hutton, during the years 1873-1880. He relocated to New York in 1880, serving as chief engineer for the Washington Bridge in 1888 and 1889 and the Hudson River Tunnel from 1889 to 1891. In 1886, he became the consulting engineer for the New Croton Aqueduct and served in the same position for the Colorado Midland Railway between the years of 1886-1889 (10).

As his personal and professional correspondence shows, Hutton continued to work on various engineering and architectural projects until his death on December 11, 1901. In addition to these projects, he also invented the innovative system of locks and moveable dams used in the Kanawha River Canal. He was awarded the Diplome d'Honneur for this feat at the Paris Exposition in 1878 (11). His correspondence also demonstrates how Hutton was respected within his professional community. These letters refer to the accuracy of his work, his willingness to help other colleagues and supply them with reference materials and information, and, in addition to all this, his politeness. It seems that these qualities defined not only his personality but also his ideology. In one of the cashbooks in the collection, dated 1899, a handwritten note contains a religious parable of “The Straw.” The phrase in this parable that speaks most to Hutton's work ethic, and to the spirit of inventors everywhere, is this: “Even so however lowly may be the act, however little opportunities we may have of assisting others, we may still do something. Let us beg to fulfil our duty in this regards by making ourselves useful to others by some little act of thoughtful charity...” (12).

Hutton, in his dedication to civil engineering, seems to have lived up to this virtue, and in his work he changed the landscape of Washington, D.C. and New York.

The Fairy Godfather: Hutton's Personal History

His professional records reveal a man who was fiercely dedicated to his work. His obituary references his professional life more than his personal life (13). Despite his reputation in the professional engineering community, his personal records demonstrate that Hutton was also dedicated to his family and children. In 1855, he married Montgomery County native Mary Augusta Clopper (died 1915). Together they lived on her family's estate known as the Woodlands, and had five children: Frank C. Hutton, Mary Hutton, Elizabeth Hutton (later Caulfield), Rosa Hutton, and Annie Salome Hutton (14). It is at this estate that Hutton died and was buried. The personal letters to his wife found in the Woodlands Collection held at the Montgomery County Historical Society show a man in love and willing to take time from his work to write to his wife. His letters to his children show a similar interest and compassion. In the many letters found in this collection from his daughter Elizabeth (Bessie) one can see a father who is interested in not only his daughter's activities abroad, but also in her opinion. This interest also extends to his son Frank Hutton, as their correspondence shows Hutton offering his son advice on his own engineering projects.

Hutton also served as executor to many of his extended family's estates. Many letters show the conflicts that Hutton had to mediate and the dependence of his cousins on him for advice and money. Although his family was wealthy (his cousin was Benjamin H. Hutton whose daughters married into the court of Napoleon III), they were volatile, and his records seem to indicate that he served as a mediator for many of their disputes. In addition to this, as his nickname of Fairy Godfather suggests, Hutton was always willing to lend his family either financial or moral support when needed. Unfortunately, little other documentation concerning Hutton's personal life exists outside of this collection and the one held at the Montgomery County Historical Society.

References:


10. Ibid.


**Scope and Content Note**

These papers document William R. Hutton's professional career as a civil engineer and his personal affairs. Although the personal materials in the collection provide insight into a man and a family that have been largely forgotten by biographers, it is the professional materials that are perhaps the most interesting to researchers. They provide a compelling narrative of the push to the West that occurred in 19th century America and the internal improvements movement typified by the American System plan proposed by Henry Clay. Perhaps best remembered for the high tariffs that accompanied it, the American System plan was also concerned with the advancement of internal improvements, such as canals, that would unite the East and West in communication, travel, and trade. The Chesapeake and Ohio Canal can be seen as one of the products of this movement (1) and was in fact initially heralded as the first great work of national improvement (2).

The papers in this collection that are related to the construction and maintenance of the Chesapeake and Ohio Canal are an invaluable documentation of efforts during this turbulent time to unite the eastern and western United States. They provide details of the canal from its initial construction to its decline with the incline at Georgetown project. The canal also serves as an example, or perhaps a warning against, federal involvement in state improvement efforts as it was the first project to be directly funded and staffed by the federal government (3). The groundbreaking ceremony was attended by then President John
Quincy Adams whose toast, "to the canal: perseverance," (4) became an ironic omen, as construction of the canal took over twenty-two years to be completed. The Chesapeake and Ohio Canal materials can be used as a case study for the problems encountered during canal building (5). These problems are best typified in the collection by the papers relating to the Georgetown incline. This project was headed by Hutton and was plagued with construction problems, boating accidents, and obsolescence from the moment of its completion. Despite these issues, the Chesapeake and Ohio Canal remains a structure of historical significance in America. As the third and last effort to construct an all-water route to the West (6), the Chesapeake and Ohio Canal is an important artifact of 19th century attitudes and efforts towards commerce, trade, travel, and communication between the eastern and western United States. Other significant canals and water structures represented in the collection are the Kanawha Canal, the Washington Aqueduct, and a large collection of materials relating to the Kingston Water Supply (New York).

One of the most significant internal improvements made during this time was the railroad. The legal conflicts that arose between the canal companies and railroads is also represented in the materials relating to the Chesapeake and Ohio Canal. These materials specifically deal with the legal conflict's between the Chesapeake and Ohio Canal and the Baltimore and Ohio Railroad. The development and construction of the railroads is also represented in the materials documenting the Baltimore and Ohio Railroad, the Baltimore and Drum Point Railroad, the Northern Adirondack Railroad, the Western Maryland Railroad, the Mexican National Railroad, the Colorado Midlands Railroad, and the Columbia Railroad.

The collection also demonstrates the spirit of innovation and invention that was prevalent in the engineering field in the nineteenth century. Joseph Gies writes, "...one of the distinctive characteristics of the great nineteenth century engineering adventurers was their readiness to gamble on the translation of theory into practice" (7). In this quote, he is speaking of the civil engineer Dewitt Clinton Haskins and a project that truly encapsulates engineering invention in the nineteenth century, the Hudson River Tunnel. Responding to the increase in the population of the City of New York in the late nineteenth century from sixty thousand to three and a half million, the Hudson River Tunnel was originally devised as a way to alleviate traffic and to transport train passengers directly across the Hudson River (8). Beginning with records dating from 1881 to 1901, the Hutton papers can be used to document not only the advances in engineering during this time but also the costs of progress. Haskins' initial efforts to build the tunnel using submerged air pressurized caissons were marked by failure and in some cases fatalities. Workers on the tunnel often suffered from what came to be known as "caisson disease" or "the bends," caused by the immense forces of compression and decompression experienced while working in the tunnels (9). This problem was so prevalent that as construction progressed the rate of worker deaths caused by "the bends" rose to twenty-five percent (10). Materials in the collection document worker complaints and deaths resulting from this disease as well as providing a technical record of the construction of the tunnel. The highlight of the materials relating to the Hudson River Tunnel is an album that contains photographs of workers in the tunnel and a detailed daily report of the construction progress on the tunnel that was maintained by Hutton's assistant, Walton Aims. The first hand account in these reports provides insight not only into the construction of the tunnel, but also the problems encountered.

Another project featured in the Hutton collection that was devised in response to the population explosion in the City of New York in the nineteenth century is the Harlem River Bridge, or as it is now known, the Washington Bridge. Known as one of the longest steel arch bridges of its time, the Harlem River Bridge also represents that spirit of invention and innovation that was prevalent in the civil engineering field during the nineteenth century. The collection provides an invaluable resource for those wishing to track the construction of the bridge from early concept drawings and proposals to finalized plans. Also present are photographs of the construction and workers. Societal response to the bridge in the form of newspaper and magazine clippings help to create the narrative of the Washington Bridge, and these are supplemented by correspondence from the builders, suppliers, and planners.
This collection also includes diaries, 1866-1901; letterpress copybooks, 1858-1901; correspondence on the Chesapeake and Ohio Canal, Hudson River Tunnel, Washington Bridge over the Harlem River, and Maryland and Colorado railroads, 1861-1901, and on Hutton's financial and real estate affairs, 1835-1921; construction photographs of the Harlem River, Cairo, Poughkeepsie, Niagara bridges and the Hudson River Tunnel, Washington Aqueduct, and Capitol Dome (in the form of albumen, cyanotype, salted paper print); data and drawings; rolled land profile drawings; canal notes, 1828-1892; Hudson River Tunnel construction reports, 1889-1891; publications, drawings, and maps of railroad routes; pamphlets and reprints on hydraulic works and water supply; road, railway, bridge, and hydraulic construction specifications, 1870-1900; drawings (linen, oil cloth, and heavy drawing paper), and blueprints; account books, 1891-1899; and plans, drawings, field notebooks, and publications on American and European construction projects, especially in Maryland, New York, and France; personal correspondence detailing his role as executor for the estates of Benjamin H. Hutton, Joseph Hutton, Annie Theller, and the Countess H. De Moltke-Hvitfeldt and his relationships with his children, siblings, cousins, and colleagues, 1850-1942.

Materials are handwritten, typed, and printed.

Special note should be made that any materials dated after the year 1901 were added to the collection by another creator who is unidentified. It can be speculated that professional materials added after this date were contributed by his brother and colleague Nathanial Hutton or his son Frank Hutton. Personal materials contributed after this date may have been added by his wife, daughters, or other members of his extended family.

Series 1, Letterpress Copybooks, 1858-1901, consists of twenty seven letterpress copybooks containing correspondence between Hutton and other engineers, architects, and building suppliers. The letterpress copybooks in this series have been arranged chronologically. The books involve a process by which ink is transferred through direct contact with the original using moisture and pressure in a copy press. The majority of the correspondence is business-related. Some letterpress copybooks are devoted to specific projects such as the Washington/Harlem River Bridge, Chesapeake and Ohio Canal, Baltimore and Drum Point Railroad, Annapolis and Elk Ridge Railroad, and the Baltimore and Ohio Railroad. The letterpress copybooks provide a record of correspondence written by Hutton, which makes it distinctive from the other correspondence in the collection. Most of the other correspondence has Hutton as recipient.

The letterpress copybooks also document Hutton's various residences throughout his life and provide a glimpse into the civil engineering profession at the time by demonstrating how engineers shared ideas and comments about projects. This can be supplemented with the printed materials in the collection as many of the authors also appear in the correspondence. Other topics covered in the letterpress copybooks include business reports (specifically the report of the president and directors of the Baltimore and Drum Point Railroad), records of people and companies involved in projects, pasted in engineering sketches, engineering specifications and notes, travel expenses and estimates, construction histories and progress, legal issues with family estates, tax information, Colorado Railroad, payment certificate schedules, St. Paul Railroad, personal correspondence, title guarantees, Hudson River Tunnel, financial matters, real estate matters, insurance information, sketches and drawings, supply lists, cost estimates, the Memorial Bridge, Coffin Valve Company, engineering expenses, engineering calculations, payroll notes for Kingston Water Supply, proposals, account information, Hutton Park, reservoirs, contract drafts, French Society of Civil Engineers, inspection results (specifically Piedmont Bridge), land descriptions, damage reports, Morse Bridge, Illinois Central Railroad, North Sea Canal, moveable dams, iron works, site histories, Potomac Lock and Dock Company, Kanawha River canal (lock quantities, specifications, payoff information), Pennsylvania Canal, and bills for services.

Series 2, Professional Correspondence, 1861-1901, consists of correspondence that relates to Hutton's architectural and engineering projects. This series is further subdivided into two subseries: Project Correspondence and General Correspondence. Subseries 1, Project Correspondence, 1876-1899, correspondence is divided by project and arranged alphabetically. Subseries 2, General Correspondence,
1861-1901, is arranged chronologically. Both series contain handwritten and typed letters. Some letters are on letterpress copybook pages and are most likely copies. Some materials are in French and Spanish. Special note should be made that this series does not contain all of the professional correspondence in the collection. Some correspondence has been separated according to project and placed in Series 8, Professional Projects, 1830-1965, in order to make it easier for researchers to access materials related to those subjects.

Subseries 1, professional correspondence topics include comparisons between construction projects (specifically comparisons of the Kanawha River Canal to other canals), supply lists, location recommendations, sketches, construction plans and modifications, bills for supplies and works, leaks in the gates, cost estimates, Brooklyn Water Supply, use of lake storage (Ramapo Water Supply), water supply to states and counties, damages to water supply pipes, estimates of water quantities, responses to construction reports, legal issues related to projects, Baltimore and Ohio Railroad, and payment for services.

Subseries 2, general correspondence topics include employment opportunities, committee meetings and elections, land surveys, sketches, engineering plans and ideas, work on projects, dismissal from projects, notes on supplies, Washington Aqueduct, construction progress, land purchases, Civil War, Jones Falls, cost of water pumps, steam drills, lots divisions and prices, repairs, report of the engineering bureau, tidewater connection at Annapolis, bridge construction, construction costs, statement of vessels that entered and cleared Baltimore, technical questions from colleagues, Baltimore and Ohio Railroad, supply costs, letters of introduction, requests for reference, changes to plans and designs, survey reports, St. Andrew's lot, Canal Coal Company, publication process, American Society of Civil Engineers and its members, responses to project inquiries, Graving Dock gross revenue, job offers, specifications, trade figures, contracts, water levels, appointment dates and times, moveable dams, proposals for membership, salaries, Piedmont Coal Lands, maps, land profiles, Washington Bridge, board payments, Nicaragua Canal, Grant Coal Company, statistics, engineering notes, Hartford Bridge, water pressures, coal deposits, Colorado Coal, pipe lines, reservoirs, boat costs for canals, floods, bridges, letters of resignation, engines, Ruxton Viaduct, Colorado and Midland Railroad, Morse Bridge, share values, railroad locations, membership invitations, call for submissions, structural tests, record of accounts for room and board, appointments, water rights (Putnam County), publications, blueprints, visitation programs, cotton compresses, street trenches, pressures in dams, level tests, Portland Transportation bureau, trade information, concrete steel, Chicago drainage canal, ship canals, Augusta Cotton and Compress Company, Soossmith case, Consolidated Gas Company, masonry, book binding, Columbia Railway Company, jetties, land grades, Chesapeake and Delaware canal, water wheels, pneumatic lock, tunnel arches, rifton power, Hutton's health, elevators, Brooklyn Bridge Terminals, girder weights, legal issues and their results, rating table for the Potomac, land profiles, transmission lines, transformers, water turbines, and water power on the Potomac River.


**Series 3, Personal Correspondence, 1850-1942**, contains correspondence with immediate and extended family, specifically the heirs to the Benjamin H. Hutton and Joseph Hutton estates and Adele Gorman. Correspondence is primarily arranged chronologically, but some files have been divided based on subject or author (the Deer Park and Adele Gorman files), or by form (the Telegrams, and Cablegrams file). Special note is made of the posthumous correspondence file, which includes correspondence both relating to Hutton's death and correspondence that was written by family members after the years of his death. The series contains both hand written and typed letters. Some correspondence is in French. The correspondence demonstrates his relationship with his children specifically Elizabeth (Bessie) Hutton, and illuminates his role in his family. This series also provides details about nineteenth century upper class society and activities. Special note should be made that this folder does not contain all of the personal correspondence contained in the collection. Some correspondence has been separated according to recipient, or subject in order to make researching these recipients or subjects easier.

Series 3 correspondence topics include: estate payments, distribution of assets, funds transfers, estate lines, conflicts with tenants, sketches, lot maintenance, real estate sales, deeds, real estate sales negotiations, congratulations wishes on new babies, family illnesses, family affairs and travels, traveling directions, personal investments, invitations for social occasions, family debts, professional interests, professional and personal appointments, family issues, requests for money, sketches, advice to children (specifically Frank Hutton), life insurance, books, letters of introduction, legal issues, funeral expenses, charity donations, advertisements, minutes from professional organizations, army enlistment, deaths of friends and family, recipes, estimates of personal expenses, renovations, stock certificates (Great Northern Railway Company, New York), food, social activities, the weather, marriages, real estate and construction plans, and loan agreements.

Series 4, Personal Materials, 1835-1946, contains documentation about Hutton's personal finances, role as executor of the Benjamin H. Hutton, Joseph Hutton, Annie Theller, and Countess H. De Moltke-Hvitfeldt estates, Mary Augusta Hutton (wife), Mary Hutton (daughter), Frank Hutton, John Caulfield (son-in-law), and B.F. and C.H. Hutton. The series has been divided into four subseries: Financial Records, 1876-1901, Estate and Real Estate Records, 1835-1921, Other Huttons, 1876-1936, and Personal Material, 1878-1946. Subseries 2, Estate and Real Estate Records, 1835-1921, contains correspondence relating to specific family estates and family members. This correspondence was separated from Series 3, Personal Correspondence, 1850-1942, to make it easier for researchers to access all records relating to the family estates. This series includes hand written, typed, and printed materials. Some materials are in French. All material dated after 1901 has been added to the collection by other creators such as Hutton's wife and children.

Subseries 1, Financial Records, 1876-1901, includes account books, account records, correspondence related to bank accounts, bank statements, financial notes, bills and proofs of payment, rent receipts, tax bills (New York, Flatbush, Montgomery County), checks, money exchanges, receipts for tax payments, real estate receipts, stock and bond certificates, loan agreements, executor accounts, rebate calculation sheet, and tax and insurance payments.

Subseries 2, Estate and Real Estate Records, 1835-1921, includes property maps and information (rent, mortgage costs, deeds), correspondence, notes on estate distribution, estate assets, value of estate and estate payments, account records, loan agreements, receipts, proof of payments, checks, financial records, legal documents, insurance documents, tax bills, auction receipts, and wills relating to the estates of Benjamin H. Hutton, Joseph Hutton, Countess H. de Moltke-Hvitfeldt, Annie Theller, and William R. Hutton. Also included are correspondence, property maps and information, and deeds and mortgages on Hutton properties.

Subseries 2, the estate and real estate records correspondence topics include: Virginia state building codes, construction costs, construction notices, purchasing offers for property, real estate prices, receipts of payments, property lines, real estate purchases and sales, real estate sales negotiations, deeds insurance estimates and costs, loan costs, property estimates, renovation costs, mortgages, property damages and repairs, property tax payments, insurance rates and payments, rent payments, telephone installation, building permits, rental agreements, reports on property condition, contracts of sale, conflicts with tenants, changes of address, deeds, distribution of estate monies, details about the Countess' illness, estate arrangements, changes of address, problems arising out of estate distribution, payment of debts, will details, selling of mortgage shares, accounts, estate settlement, money cables and transfers, dealings with lawyers, rent on Hutton Park property, legal and accounting fees, power of attorney transfer, investments, property security, land appraisals, lists of assets, legacy taxes, mortgages transfers, property management, Flatbush property, property rent and values, and physicians bills.

Subseries 3, Other Huttons, 1874-1936, includes professional drawings and proposals, checks, insurance information, correspondence, tax information, medical information, tax bills, relating to Mary Augusta Hutton (wife), Mary Hutton (daughter), Henry and Harry Hutton, Frank Hutton (son), John Caulfield (son-in-law), B.F. Hutton, and C.H. Hutton.

Subseries 4, Personal Materials, 1878-1946, contains handwritten property notes, school notes, sermons, travel documents, menus, Christmas cards, jewelry box, postal guide, typed religious materials and flyers.

Series 5, Diaries, 1866-1901, contains twenty nine diary books that document both Hutton's personal and professional life. These diaries provide not only a record of Hutton's life, but were also used by Hutton himself as a reference tool. When working on projects he would refer to notes and observations he made in his diary (as evidenced by notes made in his diaries). The first pages of the diaries often list his height, weight and clothing sizes as they varied from year to year. A researcher could probably use the cashbooks (see Series 7) and the diaries in conjunction as both detail the purchases made by Hutton. Many of the diaries also include a short record of accounts in the back. The diaries are arranged chronologically.

Topics found in the diaries include short form accounts of daily activities and appointments, records of the weather, Chesapeake and Ohio Canal project, construction progress on projects, steam pumps, sketches and calculations, extension of Washington railroads, cost of food, work supplies, travel costs, costs of goods and food, work deadlines, home renovations, visits to family, cash accounts, accounts of household duties, produce on Woodlands property, records of deaths, debts owed, account of clearing Woodlands property, church visits, Hancock and Tonoloway Aqueduct, canals, Drum Point Railroad, Montgomery C. Meigs, Washington Aqueduct, Annapolis Water Works, telegram costs, wages for Chesapeake and Ohio Canal project, William Craighill, Morris Canal, Annapolis Railroad and Canal, professional duties (inspections), Kanawha River Canal, travel schedules, professional expenses, cash received from Chesapeake and Ohio Canal project, Baltimore and Ohio Railroad, John's Dam, cathedral construction (St. Patrick's?), Piedmont Bridge, Cumberland, account of farm property belonging to Major Campbell Bruns, Cunard Pier, Marquise de Portes, rent costs, Baltimore Canal, Kingston Water Supply, Croton Orange Estate, Pierre Casson, Hudson River Tunnel, Washington/Harlem River Bridge, entertainment costs, Greenwood cemetery, train schedule, notes on illness, real estate sales, Hutton Park, Benjamin H. Hutton estate and heirs, estimates, accounts of correspondence received and sent, Central Railroad, rent on Orange properties, addresses, contracts and building supplies for projects, personal finances, Joseph Hutton property on Vanderbilt Avenue, New York, amounts paid and received, medical appointments, Ramapo Water Company, drawing progress of maps and diagrams, Harbor Board (New York), property repairs, inspection and test reports, reservoirs, lists of birthdays, Boston Tunnel, family financial issues, tax payments, and prayers.

Series 6, Notebooks, 1860-1900, document the engineering and architectural projects worked on by Hutton. The series has been divided into three subseries: Subseries 1, Engineering and Survey Field Notes, 1860-1899; Subseries 2, Notebooks, 1871-1886; and Subseries 3, Notes, 1863-1900. Subseries 1, Engineering and Survey Field Notes, 1860-1899, contains sixteen field notebooks used by Hutton. Subseries 2, Notebooks, 1871-1886, contains seven notebooks. Subseries three, Notes, 1863-1900, contains four documents.

Some notebooks correspond to specific projects such as the Kanawha River Canal (lockgate and Phoenix Waterline), Chesapeake and Ohio Canal, Buffalo Reservoir, Potomac Lock and Dock Company, Northern

These notebooks should be used in conjunction with the other materials in the collection related to professional projects, as they often provide more detailed accounts of the construction and land surveys. Some of the notebooks contain entries from several different sources. The notebooks were probably shared among the engineers working on these projects. The notebooks also contain looseleaf ephemera such as hand written calculations, newspaper clippings, and blueprints. Languages found in this series are English and French.

Notebook topics include construction projects, supply needs, costs for labor, sketches (Woodland Mills, landscapes, dams, railway cars, Noland Tunnel), costs of crops, survey measurements, cost of livestock, aqueducts, inspections, canal bridges, seed prices, dams, measurements, coffer dam, canal maintenance, worker salaries, calculations, towpath sketches and measurements, shipping rates, worker accidents, water and coal used, geometrical sketches (Washington Aqueduct), locks, damage reports, interactions with other engineers (William Reading), coal shipments on the canal, travel expenses, land survey notes, drafts for correspondence, William Craighill, Victoria docks, lists of personal supplies used, construction time estimates, surveying expenses, telegram costs, sand pump, canal from Sherling to Tuxedo Bay, analysis of several artificial lakes and reservoirs, distances of reservoirs to main pipes, calculations for the Austin Wheel, engine construction, bridges, gauging water depth, results and observations of tests and performance, problems with construction, to-do lists, cost of land surrounding towpaths, Fawcett's Lock, Tarman's Lock, comparison of costs in transporting coal by water and by rail, inspection notes, iron work, drainages, leaks, cost of supplies, watergates, harbor ferries, railroad station distances, flood protection, Panama Canal via the Nicaraguan route, cost of jetties, water levels, pressure of steam, boilers, steam and water cycle, water depth, cement, Great Falls, Virginia, waterflow, soundings, time of floats, flow of currents, rain fall measurements, tunnel measurements, cost of trenching San Francisco water supply, record of livestock, cost of food, rates of sawing woods and mills, preliminary railroad line measurements, profile of final line, and railroad line profiles.

Series 7, Cash Books, 1856-1899, contains seven cashbooks which list prices for personal items purchased by Hutton. Topics include groceries, church dues, clothes, hygiene products, cigars, some short journal entries about his work (Williamstown), concerts, dinners, family addresses, cakes, meals, cars, stamps, office supplies (pencils and papers), valentines, glasses, gloves, fabric, medicine, needles, diapers, tobacco, shoes (adult and childrens), travel expenses, telegrams, candles, newspapers, liquor, coal oil, jewelry, allowances given to family members, bank deposits, monies paid and received, taxes, subscriptions, tailoring costs, deposits and payments into estate trusts, and notes about payments to Benjamin H. Hutton heirs. The cashbooks also contain some personal loose leaf ephemera such as prayers, sketches, and engineering notes collected by Hutton.

Series 8, Professional Projects, 1830-1965, contains documents about engineering and architectural projects throughout Hutton's career, including information about the professional organizations and the legal issues in which he was involved. This series has been divided into eight subseries based on project, document form, and document subject. Some materials are in French and Italian.

Series 8, Professional Projects, also includes correspondence related to specific projects, primarily the Chesapeake and Ohio Canal, the Hudson River Tunnel, the Washington/Harlem River Bridge, and the Georgetown Incline.

Topics include construction and repair to the Chesapeake and Ohio Canal, engineering and use of Chesapeake and Ohio Canal, worker contracts, supply and labor purchases, design plans and proposals, construction and repair costs, supply notes and costs of supplies, water pressure and power, shipping
materials and routes (specifically the shipping of coal), inspections and their findings, condition of canal
dam and locks, water supply, drainage, sketches, board proceedings, business meetings, deeds, cost
comparisons to other shipping methods, hiring processes, wages, cost estimates, Hutton's consulting
fees, measurements and calculations, funding issues, worker conflicts, negotiations with municipal
governments, payment schedules, bills for services, air pressure in Hudson River Tunnel, permission
for construction, specifications, mortality rate among workers on the Hudson River Tunnel, construction
reports, outlet incline, proposals for construction, letters of introduction, railroad versus water for trade,
controversy with Tiersey, construction contracts, construction schedules, construction issues, construction
progress, construction damage, basis for estimates, supply requests, internal politics, changes to
construction plans, contract and price adjustments, issues with suppliers, construction delays, work
permits, bills, worker issues, engineering notes, construction excavations, expenses, construction
instructions, Union Bridge Company, lighting installations, construction processes, hiring practices,
electrical conductors, water proofing, hydraulics, cement, concrete, payment of contributors, processes
of approval for construction, meeting dates of the Harlem River Bridge Commission, and contract
restrictions.

Correspondents include the following: W.W.M. Kaig, Henry Dodge, E. Mulvany, John Shay, James Clarke,
H. Brown, Charles H. Fisher (New York Central and Hudson River Railway Company), B. Baker, John
Fowler, Benjamin and John Dos Passos, Charles B. Colby, Charles B. Brush, S. Pearson, Stanford
White, Horace E. Golding, R.H. Smith, Daniel Lord, A. Fteley, Herbert Hinds, J.R. Bartlett, D.M. Hirsch,
M.H. Bartholomew, Thomas O. Driscoll, W.E. Porter, Thomas F. Rowland, George Edward Harding,
Henton, G. Geddes, H.P. Gilbut, Malcolm W. Niver (Secretary of the Harlem River Bridge Commission),
J.D. Patterson, George Devin (Assistant Engineer Washington/ Harlem River Bridge), J.B. Wheeler,
John Bogart, Charles Burns, J. McClellon, Rob Bassee, B. Williamson, Theodore Cooper, Lewis Cass
Ledyard, R.M. Hunt, John Cooper, Henry Wilson, A.A. Caille, Myles Tierney, W. Pentzen, L.B. Cantfield,
George Q. Grumstaid Junior, M.J. Funton, George Pierce, W.O. Fayerweather, Noah S. Belthen, Herbert
Steward, W.M. Habirsham. Subseries 1, Chesapeake and Ohio Canal, 1828-1965, consists of plans,
blueprints, land profiles, drawings, boat rates, contract forms, order forms, descriptions of the canal,
design information, engineering data, sketches, cost estimates, land titles, microfilm, business papers,
supply bills, patent bills, news clippings, reports, specifications, stockholder's reports, receipts, water
leases, printed materials, and correspondence.

The Chesapeake and Ohio Canal project was started in 1828 and completed twenty two years later in
1850. The canal's main objective was to connect Georgetown to the coal banks above Cumberland,
Maryland, providing a short and cheap trade route between the eastern and western United States. It was
also hoped that the canal would provide greater communication and travel between these two regions.
Plagued by natural disasters, and construction setbacks, the canal was never completed in time to be
useful and became obsolete shortly after its completion. Canal trade was eventually put out of business
by the increase of railroads. Although it was an important development in engineering at its inception, the
Chesapeake and Ohio Canal is no longer in use and has become what locals affectionately refer to as
"the old ditch." The canal was designated a National Historical Park in 1971 and consists of 184.5 miles of
hiking and biking trails.

Subseries 2, Hudson River Tunnel, 1887-1901, consists of agreements for construction, certificates,
contracts, and cost estimates, construction reports, engineering notebooks, engineering notes, sketches,
land profiles, maps, progress profiles, plans, proposals, printed material, statements of expenses, and
correspondence.

The Hudson River Tunnel project was started in 1874, and the final tubes were opened in 1910 after
several construction setbacks. The tunnel connects Weehawken, New Jersey and Pennsylvania Station in
Manhattan, New York City. Today the Hudson River Tunnel, known as the North River Tunnels is used by
Amtrak's Northeast Corridor and New Jersey Transit rail lines.
Subseries 3, Harlem River Bridge, 1878-1982, consists of blueprints, printed materials, photographs, engineer's estimates, schedules, costs, reports, proposals, contracts, specifications, and correspondence.

The Harlem River Bridge project was started in 1885 and was completed in 1889. It spans the Harlem River in New York City, New York and connects the Washington Heights section of Manhattan with the Bronx. It was later named and is still known as the Washington Bridge and has been adapted over time to carry highway traffic. These adaptations have allowed the bridge to remain in use today.


Subseries 5, Unidentified Project Files, 1872-1900, consists of bills of sale, engineering forms and regulations, cement test results and methods, census bulletin, contracts, cost estimates, correspondence, notes on publications, engineering data and notes, drawings, surveys, sketches, payrolls, photographs, and reports.

Subseries 6, Specifications, 1870-1900, consists of documents related to some of Hutton's projects, including specifications for bridges, reservoirs, canals, viaducts, docks, buildings, water works, and tunnels. Some specifications are more general, and some are blank proposal/specification forms. There are also proposals for estimates and a "call" or advertisement to contractors to bid on certain projects. Many of the specifications deal with projects in New York State, but projects in Pennsylvania, the City of Baltimore, and Europe are represented. The materials are arranged alphabetically by project name. There is one folder of documentation for the Potomac River Bridge (Arlington Memorial Bridge) in Washington, D.C. The Arlington Memorial Bridge was part of the 1901 McMillan Commission's plan for restoring Pierre (Peter) Charles L'Enfant's original plan for the capital. Two decades passed before construction was initiated by the architectural firm McKim, Mead, and White. The documentation for the Memorial Bridge consists of calculations and monetary figures for materials such as granite.

Subseries 7, Legal Documents, 1886, contains documents related to a patent infringement suit for moveable dams involving Alfred Pasqueau vs. the United States. This file contains both a printed version of the case and a handwritten statement from Hutton.

Subseries 8, Professional Organizations, 1870-1902, contains documents related to professional organizations where Hutton held membership. Specific organizations represented are American Institute of Architects, American Society of Civil Engineers, Institution of Civil Engineers, Boston Society of Civil Engineers, Societe des Ingenieurs Civils de France, Librarie Polytechnique, American Agency of "Engineering" in London, Imperial Institute, League of Associated Engineers, Railroad Corporation, American Institute of Mining Engineers, and the Century Association. Material in the subseries includes correspondence, candidates for membership, membership payments, membership lists, meeting minutes, schedule of terms, professional practices, charges, articles of association, invitations for membership, and election notes. Some materials are in French.

Subseries 9, Printed Materials, 1850-1913, contains a variety of printed materials relating to engineering and architectural projects written by Hutton and fellow engineers. This series can be used to examine not only professional developments of the period and responses to those developments, but also to track how ideas were transferred between engineers across countries and continents. This series should be used
in conjunction with the professional correspondence found in this collection, as many of the authors also appear there. Some materials are in French, German, Spanish, and Italian.

**Subseries 1, Printed Materials by Hutton, 1852-1900.** includes printed papers on the Missouri flood wave, the Ravine du Sud, the Potomac waterfront, the Colorado midlands, and the application of water supply machinery.

**Subseries 2, Printed Materials by Others, 1826-1913.** includes printed materials on the Chesapeake and Ohio Canals, Tehuantepec Ship Railway, Interoceanic canals and railways, jetties, Nicaragua Canal, uses of cements, mortars, concretes, steam power, harbors, Niagara Falls, Kanawha River canal, Mississippi River, Hudson River Bridge, sewage disposal, Washington Aqueduct, specifications, construction progress reports, hydraulic experiments, water supply, drainage, road surfacing, sea walls, water-cooling apparatus, pollution reports, bridges, pipes, channels, reservoirs, irrigation, water power, and sewers.

Subseries 2 contains an issue of *The North American Review* in which Hutton has specifically highlighted an article entitled, "The Inter-Oceanic Canal." Please see the container list for names of authors.

**Subseries 3, Printed Materials with No Author, 1852-1903.** includes printed materials on harbor reports, Annapolis Water Company, Ramapo Water Company, water departments and boards, maps, engineer's reports, sea walls, preservation of structures, annual reports, Coal and Iron Railway Company, sewers, Baltimore and Drum Point Railroad, contract specifications, proposals, social club life, Croton Water Supply, law suits, water supplies, moveable dams, reservoirs, East River Bridge, Eastern Canal, water filtration, Kingston New Water Supply, water pipes, locks, docks, contracts, construction reports, Croton Water Supply, and surveys. Also included are issues of journals such as *Le Correspondant*, *Circular of the Office of Chief Engineers*, *The Club*, *VIII Congres International de Navigation*, *Journal of the Association of Engineering Studies*, and *Journal of the Franklin Institute*.

**Subseries 4, Newspaper, Journals and Magazine Clippings, 1873-1900.** contains clippings from a variety of newspapers such as *Scientific American*, and *Railroad Gazette*. Subjects included are the Union Tunnel opening in Baltimore, Drum Point Railroad, railroad company conflicts, Washington/Harlem River Bridge, Metropolitan Railroad, Western Maryland Railroad, crop prospects, lumber trade, North Avenue Bridge, Nicaraguan Canal, harbors, river improvements, reactions to engineering projects, Belt tunnel, city transit, Washington, D.C. flood in 1880, tunnel shields, Springfield Bridge, railroad patents, Panama Canal, jetties, Hudson Tunnel, steel boilers, composition and use of cement, and the Brooklyn Bridge.

**Subseries 5, Oversized Printed Materials, 1889-1892.** contains large printed materials related to the Washington Aqueduct, General Post Office Building, subway arches, cornices, Warwick's Castle, Neuschwanstein Castle, Renaissance paintings, botanical drawings, school buildings, church architecture, the Hospital for the Insane of the Army and Navy and the District of Columbia, the Panama Canal, Morningside Park, and the Mississippi Jetties. Also includes engravings of Hutton, T.N. Talfound, and F. Jeffrey and photographs of Montgomery C. Meigs, and Hutton. Some materials are in German and French.

References:

2. Ibid., 88.
3. Ibid., 55.
4. Ibid., 90.

6. Ibid., 282.


8. Ibid., 131-132.


10. Ibid., 145.

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**Arrangement**

The collection is arranged into 9 series.

**Series 1, Letterpress Copybooks, 1858-1901**

**Series 2, Professional Correspondence, 1861-1901**

Subseries 1, Project Correspondence, 1876-1899

Subseries 2, General Correspondence, 1861-1901

**Series 3, Personal Correspondence, 1850-1942**

**Series 4, Personal Materials, 1835-1946**

Subseries 1, Financial Records, 1876-1901

Subseries 2, Estate and Real Estate Records, 1835-1921

Subseries 3, Other Huttons, 1874-1936

Subseries 4, Personal Materials, 1878-1946

**Series 5, Diaries, 1866-1901**

**Series 6, Notebooks, 1860-1900**

Subseries 1, Engineering and Survey Field Notes, 1860-1899

Subseries 2, Notebooks, 1871-1886

Subseries 3, Notes, 1863-1900

**Series 7, Cashbooks, 1856-1899**

**Series 8, Professional Projects, 1830-1965**

Subseries 1, Chesapeake and Ohio Canal, 1828-1965

Subseries 2, Hudson River Tunnel, 1887-1901

Subseries 3, Harlem River Bridge, 1878-1892
Subseries 4, Other Projects, 1858-1932
Subseries 5, Identified Project Files, 1872-1900
Subseries 6, Specifications, 1870-1900
Subseries 7, Legal Documents, 1886
Subseries 8, Professional Organizations, 1870-1902

**Series 9, Printed Materials, 1826-1913**

Subseries 1, Printed Materials by Hutton, 1852-1900
Subseries 2, Printed Materials by Others, 1826-1913
Subseries 3, Newspaper, Journals, and Magazine Clippings, 1855-1901
Subseries 4, Oversized Printed Material, 1889-1892

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**Names and Subject Terms**

This collection is indexed in the online catalog of the Smithsonian Institution under the following terms:

Subjects:
- Annapolis Waterworks
- Aqueducts
- Arch bridges
- Architects--19th century
- Architecture--United States
- Architecture--Washington (D.C.)
- Books
- Bridge construction industry--United States
- Bridges--Design and construction
- Bridges--New York (N.Y.)
- Bridges--United States
- Canals
- Canals--Design and construction
- Canals--Maryland
- Canals--Panama
- Canals--Washington (D.C.)
- Civil engineering
- Civil engineers
- Coal--Transportation
- Concrete
- Concrete construction
- Construction equipment
- Construction workers
- Construction--Washington (D.C.)
- Dams
Docks
Domestic and family life
Engineering notebooks
Harlem River Bridge Commission
Hydraulic engineering
Iron and steel bridges
Locks and dams
Patents
Railroad bridges
Railroad companies
Railroad construction
Railroad engineering
Railroads--19th century
Railroads--Maryland
Reservoirs
Sewage disposal
Shipping
Steam engineering
Tunnels
Tunnels--New York (N.Y.)
Underground construction
Underwater tunnels
Washington (D.C.)--19th Century
Water-supply
Waterworks
Western Maryland Railroad

Types of Materials:
Account books--19th century
Administrative records
Albumen prints
Albums
Annual reports
Architectural drawings
Blueprints
Booklets
Books--19th century
Business letters
Business records--19th century
Cashbooks
Christmas cards
Contracts
Correspondence
Correspondence--19th-20th century
Cyanotypes
Deeds
Diaries
Diaries--19th century
Drawings
Drawings--19th century
Family papers--18th century
Financial records--19th century
Harlem River Bridge
Land titles
Legal documents
Letter books
Letterpress copybooks
Letters
Linen tracings
Maps--19th century
Menus
Microfilms
Notebooks
Notes
Photoengravings
Photograph albums
Photographic prints
Photographs
Photographs--19th century
Photostats
Plans (drawings)
Printed material
Receipts
Reports
Salted paper prints
Sketches
Specifications
Stock certificates
Tax records
Technical drawings
Technical literature
Topographic maps

Geographic Names:

Baltimore (Md.)
Chesapeake and Ohio Canal
France
Georgetown (Washington, D.C.)
Hudson River
Hudson River Tunnel
Kanawha River Canal
Maryland
New Croton Aqueduct
New Jersey
New York
New York (N.Y.)
Panama Canal (Panama)
Potomac River--19th Century
Washington Aqueduct
Washington Bridge
Washington Memorial Bridge

Gloves must be worn when handling unprotected photographs and negatives.


Container Listing

Series 1: Letterpress copybooks, 1858-1901

Box 16, Folder 1     1858 November-1871 December
Box 16, Folder 2     1872 May-1873 July
Box 16, Folder 3     1873 January-1874 July
Box 23, Folder 20    Baltimore and Drum Railroad and Annapolis and Elk Ridge Railroad, 1875
Box 23, Folder 21    1875-1876
Box 17, Folder 1     [1875-1880?]
Box 17, Folder 2     Chesapeake and Ohio Canal Company, 1876-1877
Box 17, Folder 3     Chesapeake and Ohio Canal Dam; Baltimore and Ohio Railroad details; Roebling's and Sons; Poole and Hunt, 1877-1879
Box 18, Folder 1     1879-1883
Box 23, Folder 22    1880-1881
Box 18, Folder 2     1883 December-1886 September
Box 23, Folder 23    Harlem River Bridge,, 1887-1888
Box 18, Folder 3     1887-1889
Box 23, Folder 24    1888-1889
Box 19, Folder 2     1889-1890
Box 19, Folder 1     1889 September-1890 November
Box 19, Folder 3     1890 October-1901 September
Box 19, Folder 4     1890 December-1893 January
Box 20, Folder 1     1891-1892
Box 20, Folder 2     1892-1893
Box 20, Folder 3     1893-1894
Box 22, Folder 1     1893-1895
Box 22, Folder 2     1894-1897
Box 22, Folder 3     1895 March-1896 November
Box 22, Folder 4     1896 November-1898 March
<table>
<thead>
<tr>
<th>Box 21, Folder 1</th>
<th>1897-1901</th>
</tr>
</thead>
<tbody>
<tr>
<td>Box 21, Folder 2</td>
<td>1901 April-1901 November</td>
</tr>
</tbody>
</table>
Series 2: Professional Correspondence, 1861-1901

Subseries 2.1: Project Correspondence, 1876-1899

Box 32, Folder 1  Baltimore Beltway correspondence, 1894-1897
Box 32, Folder 2  Collected correspondence with Floridian Railroad Companies (International Railroad and Transportation Company, Florida), 1882-1883
Box 32, Folder 3  Collected correspondence with Maryland Railroad Companies (Metropolitan Railroad Company, Consolidation Coal Company of Maryland, Western Maryland Railroad, Baltimore and Ohio Railroad, Annapolis and Elk Ridge Railroad, Cumberland and Pennsylvania Railroad, Baltimore and Drumpoint Railroad), 1871-1885
Box 32, Folder 4  Consolidated Gas Tank correspondence, 1894-1898
Box 32, Folder 5  Cunard Pier correspondence, 1898-1899
Box 32, Folder 6  Kanawha River correspondence, 1876-1882
Box 32, Folder 7  Kingston Water Supply correspondence, 1896-1898
Box 32, Folder 8  Potomac Power Company vs. Vanderwerken Heirs, 1893-1900, predominantly 1899
Box 32, Folder 9  Ramapo Water Supply correspondence, 1882-1891

Subseries 2.2: General Correspondence (Chronological), 1861-1901

Box 32, Folder 10  1861-1869 (English and Spanish)
Box 32, Folder 11  1870s (English and French)
Box 32, Folder 12  1880s (English and French)
Box 32, Folder 13  1890s (English, French, and Spanish)
Box 32, Folder 14  1890s (English, French, and Spanish)
Box 32, Folder 15  1900-1901 (English and French)
Box 32, Folder 16  Undated (English and French)
Series 3: Personal Correspondence, 1850-1942

Box 32, Folder 23  Adele Gorman (English and French), 1887-1892
Box 32, Folder 24  Deer Park,, 1888-1889
Box 32, Folder 17  1850-1880
Box 32, Folder 18  1880s
Box 32, Folder 19  1890s
Box 32, Folder 20  1900-1901
Box 32, Folder 21  Posthumous correspondence, 1902-1942
Box 32, Folder 22  undated
Box 32, Folder 25  Telegrams and cablegrams, 1874-1901
Series 4: Personal Materials, 1835-1946

Subseries 4.1: Financial Records, 1876-1901

Box 6, Folder 1  Bank of America special accounts book, 1891-1900
Box 30, Folder 1  Account Books: Manhattan Trust Company, 1893-1894
Box 30, Folder 2  Account Records (with Marquise de Portes, Hudson River Tunnel, Countesse de Moltke, personal bank accounts (cash and deposit), executor accounts, tax and insurance payments), 1884-1900
Box 30, Folder 3  Banking (correspondence, financial notes, loan agreements and interest, real estate receipts, stock and bond certificates), 1883-1901
Box 30, Folder 4  Banking (statements, checks, account records, money exchanges), 1885-1901
Box 30, Folder 13  Bills and proofs of payment: professional life, 1876-1901
Box 31, Folder 11  Receipts, checks and proofs of payment: personal, 1876-1901
Box 31, Folder 12  Receipts for room and board at Angele Morello Hotel, 1889-1899
Box 31, Folder 16  Tax bills: New York, Flatbush, Montgomery County, receipts for tax payments, utility bills (Department of Public Works, New York), rebate calculation sheet, 1880-1900

Subseries 4.2: Estate and Real Estate Records, 1835-1921

Box 6, Folder 2  Benjamin Hutton Estate, map of Hutton Park, Orange, New Jersey, (2 copies), undated
Box 30, Folder 5  Benjamin Hutton Estate and heirs correspondence, (English and French), 1882-1900
Box 30, Folder 6  Benjamin Hutton Estate and heirs estate notes (notes on distribution of estate, notes on value of estate and assets, estate payments, lists of assets, travel notes), 1889-1901
Box 30, Folder 7  Benjamin Hutton Estate and heirs financial and account records (purchases, expenses, loans, property costs, mortgages, rent, income, receipts, balances, estate payments, capital, treasurer's reports, mortgage accounts), 1884-1900
Box 30, Folder 8  Benjamin Hutton Estate and heirs finances (receipts of payment, loan agreements, checks, money exchanges, cable transfers, bank statements, stock reports, account book (Marquise de Portes), statement of financial conditions, security and bond notices), 1881-1900
Box 30, Folder 9  Benjamin Hutton Estate and heirs legal documents (settlement of accounts, distribution of estate, master's report, power of attorney, reports on estate assets, deeds, leases, settling of debts), 1860-1900

Box 30, Folder 10  Benjamin Hutton Estate and heirs real estate (insurance receipts and bills, property notes, Greenwood Cemetery building notes, auction receipts, mortgage details, bills for property appraisal, property maps, mortgage assignments, notice of real estate sale, notes on real estate value, Health Department of the City of New York notice, property drawings, declarations of sale, list of property assets), 1844-1900

Box 30, Folder 11  Benjamin Hutton Estate and heirs receipts (for goods, legal and professional services, magazine subscriptions, travel cost, postage costs), 1881-1901

Box 30, Folder 12  Benjamin Hutton Estate and heirs tax bills (Hoboken and West Orange New Jersey, New York City), 1887-1899

Box 31, Folder 2  Countess H. De Moltke-Hvitfeldt Estate (accounts, power of attorney, legacy documents, estate payments, auction receipts, debt payments, asset receipts, money exchanges, correspondence), 1878-1901

Box 31, Folder 5  Joseph Hutton Estate (financial documents, legal documents, wills, checks, insurance policies, receipts, rent and property information), 1881-1894

Box 31, Folder 6  Joseph Hutton Estate correspondence, 1885-1900

Box 31, Folder 10  Real estate documents (correspondence, receipts, property notes, insurance information, auction forms, mortgages, rent costs, leases and deeds, building codes, maps, bonds), 1835-1921

Box 31, Folder 17  Theller Estate (receipts, correspondence, property information, insurance policies, account records), 1890-1895

Box 31, Folder 19  William Rich Hutton Estate (certificate of executors, receipts, declaration of trust, estate payments, correspondence), 1901-1902

Subseries 4.3: Other Huttons, 1874-1936

Box 6, Folder 6  Drawing by Frank Hutton ("Annular Torus Car by Plane"), undated

Box 30, Folder 14  Checks, Henry and Harry Hutton, 1890

Box 31, Folder 3  Frank Hutton (professional proposals, drawings, receipts, business cards, medical information), 1889-1928

Box 31, Folder 4  John Caulfield (check, receipts for car and gas), 1932-1936

Box 31, Folder 7  Mary Hutton (wife) (receipts, insurance information, tax information, correspondence), 1874-1900

Box 31, Folder 8  Mary Hutton (daughter) (checks, correspondence), 1930-1933
Box 31, Folder 15  Tax bills, B.F. and C.H. Hutton (Hoboken, New Jersey and Brooklyn, New York), 1887-1898

Subseries 4.4: Personal Materials, 1878-1946

Box 30, Folder 15  Handwritten notes [property notes?], 1898, undated
Box 31, Folder 1  School notes (possibly written by W.R. Hutton's children), undated
Box 31, Folder 9  Printed ephemera (French and English), 1878-1946
Box 31, Folder 9  Lid from jewelry box, Joseph K. Davison's Sons Manufacturing Jewelers (Philadelphia), undated
Box 31, Folder 9  *Merchants' Pocket Postal Guide for Foreign Mails*, 1878
Box 31, Folder 9  Menu from Cie Gle Transatlantique Paquebot le Bretagne, 1893
Box 31, Folder 9  Christmas cards, 1946
Box 31, Folder 13  Religious ephemera, undated
Box 31, Folder 13  Typed lines found on a Confederate bank note (poem), undated
Box 31, Folder 13  Flyer for religious reading entitled "Is This the Last Generation?" (Gaithersburg, Maryland), undated
Box 31, Folder 14  Sermons, undated
Box 31, Folder 18  Travel documents (receipts, accounts, request for passage), 1878-1891
Series 5: Diaries, 1866-1901

Box 12, Folder 1  Diary,. 1866
Box 12, Folder 2  Diary,. 1867
Box 12, Folder 3  Diary,. 1868
Box 12, Folder 4  Diary,. 1869
Box 12, Folder 5  Diary,. 1873
Box 12, Folder 6  Diary,. 1874
Box 12, Folder 7  Diary,. 1875
Box 12, Folder 8  Diary,. 1878
Box 12, Folder 9  Diary,. 1879
Box 12, Folder 10 Diary,. 1880
Box 12, Folder 11 Diary,. [1880?]
Box 12, Drawer 12 Diary,. 1881
Box 12, Folder 13 Diary,. 1882
Box 12, Folder 14 Diary,. 1884
Box 13, Folder 1  Diary,. 1885
Box 13, Folder 2  Diary,. 1886
Box 13, Folder 3  Diary,. 1887
Box 13, Folder 4  Diary,. 1888
Box 13, Folder 5  Diary,. 1889
Box 13, Folder 6  Diary,. 1892
Box 13, Folder 7  Diary,. 1893
Box 13, Folder 8  Diary,. 1894
Box 13, Folder 9  Diary,. 1895
Box 13, Folder 10 Diary,. 1896
Box 13, Folder 11 Diary,. 1897
Box 13, Folder 12 Diary,. 1898
Box 14, Folder 1  Diary,. 1899
Box 14, Folder 2  Diary,. 1900
Series 6: Notebooks, 1860-1900

Subseries 6.1: Engineering and Survey Field Notes, 1860-1899

Box 14, Folder 15  Survey field notes,, 1860-1863
Box 14, Folder 16  Survey field notes,, 1879
Box 14, Folder 18  Survey field notes for Hudson River Bridge, Hutton Park, and Cunard Piers),,, 1898-1899
Box 14, Folder 19  Survey field notes,, undated
Box 14, Folder 4  Engineering field notes,, 1863 and 1869
Box 14, Folder 5  Engineering field notes, 1869 August-1870 April
Box 14, Folder 6  Engineering field notes,, 1870
Box 14, Folder 7  Engineering field notes,, 1873-1874
Box 14, Folder 8  Engineering field notes,, 1874-1886
Box 14, Folder 9  Engineering field notes,, 1877
Box 14, Folder 10  Engineering field notes (English and French), 1878
Box 14, Folder 11  Engineering field notes (Ramp),,, 1880
Box 14, Folder 12  Engineering field notes, 1882
Box 14, Folder 13  Engineering field notes (Ramp),,, 1882
Box 14, Folder 14  Engineering field notes,, 1884
Box 14, Folder 17  Engineering field notes for Morris Canal and Ramp,, 1884-1887

Subseries 6.2: Notebooks, 1871-1886

Box 23, Folder 12  Notebook listing drawings,, 1871-1877
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*James B. Eads's Proposed Jetty Improvement at the Southwest Pass, Mississippi River*, undated

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Box 2, Folder 2  Gardiner, James T. *State Board of Health, New York: Report to the State Board of Health, on the Methods of Sewerage for Cities and Large Villages, in the State of New York*, undated

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Box 2, Folder 5  Goldmark, Henry. *Locks and Lock Gates for Ship Canals*, 1899

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Box 2, Folder 8  Hall, William Ham (State Engineer, California), *The Irrigation Question*, 1886

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Box 2, Folder 19  Leighton, Marshall O. *Pollution of Illinois and Mississippi Rivers by Chicago Sewage*, 1907

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Box 2, Folder 24  McAlpine, William J. *Report Made to the Staten Island Water Supply Company for Supplying the Villages of New Brighton, Edgewater, and Port Richmond, Staten Island with Pure and Wholesome Water*, 1879

Box 2, Folder 25  McAlpine, William J. (Honorable). *A Supply of Water City of Norfolk*, 1871

Box 2, Folder 26  McAlpine, William J. *Analysis of the Water from the Different Sources (Troy)*, 1872

Box 2, Folder 27  McAlpine, William J. *Remarks of William J. Alpine, Civil Engineer Before the Mayor and Commission on the Projects for an Increased Water Supply, (Croton Water Supply, City of New York)*, 1883


Box 2, Folder 29  Menocal, G. *Channel Improvement, Washington Navy Yard*, 1882

Box 2, Folder 30  Morison, George S. *Expansion Bearings for Bridge Super-Structures*, 1894

Box 2, Folder 31  Florida Ship Canal (map), 1879

Box 2, Folder 31  Tebbetts, Horace B. *The Maryland and Delaware Ship Canal Company*, 1885

Box 2, Folder 31  *Isthme de Panama Chemin de fer Interoceanique pour Navires* (French), 1879

Box 2, Folder 31  *Cuestion de Tehuantepec*, (Spanish), 1852


Box 2, Folder 31  *Ueberischtskarte der norddeutschen Wasserstrassen nebst Langenschnitten des Rhein-Weser-Elbe, des Berlin-Stettiner und des Masurischen Kanals* (German), 1900

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Box 2, Folder 49  
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Box 2, Folder 54  Waring, George. *Sewage Disposal*, 1892
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Subseries 9.3: Newspaper Clippings, 1855-1901

Box 4, Folder 4  1855-1891
Box 4, Folder 4  "First Union Tunnel Opening-Baltimore" 1873
Box 4, Folder 4  "Baltimore American" 1867
Box 4, Folder 4  "The Drum Point Railroad Again," 1874
Box 4, Folder 4  *Consolidation Coal Company and Cumberland and Pennsylvania Railroad Company vs. the Pennsylvania Railroad Company in Maryland*, 1879
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Box 4, Folder 4  "A Costly Bridge that Nobody Uses" (Harlem River Bridge), 1889
Box 4, Folder 4  "Who Read this Page Without Laughing," 1885
Box 4, Folder 5  1873-1901
Box 4, Folder 5  "Western Crop Prospects, Lumber Trade Situation, Missouri Pacific Plans," 1900
Box 4, Folder 5  "The North Avenue Bridge Question," 1901
Box 4, Folder 5  "The Bridge Terminal Problem," 1901
Box 4, Folder 5  "Build the Canal" (Nicaraguan Canal), 1894
Box 4, Folder 5  *The Railroad Gazette*, 1892
Box 4, Folder 5  "The City's Topographical Map," 1892
Box 4, Folder 5  "River Improvement," 1892
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Box 4, Folder 5  "The End of the Bridge,"1901
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Box 4, Folder 5  "Will Save Millions" (Nicaraguan Canal), 1894
Box 4, Folder 5  "Views of an Engineer,"1894?
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Box 4, Folder 5  "Belt Tunnel Suit,"1892
Box 4, Folder 6 (text); Box 4, Folder 5 (text)  "Rapid Transit Extension,"1900
Box 4, Folder 5  "The Canal Problem,"1898
Box 4, Folder 5  "The Flooded District,"1880
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Box 4, Folder 5  "The Development of Tunnel Shields,"1896
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Box 4, Folder 5  "Water Works Question Discussed,"1882
Box 4, Folder 5  "Deep Sea Harbor in Southern California,"1896
Box 4, Folder 5  "Annual Statement on Imports and Exports,"1880
Box 4, Folder 6  1874-1896
Box 4, Folder 6  Scrapbook of newspaper clippings (docks, Drum Point, Bridge building, Board Tree Tunnel, Chesapeake and Ohio Canal, Washington Canal, harbor notes, Kanawha River Canal, Great Falls, Kingwood Tunnel, Georgetown locks, Pinjointed Bridge vs. Lattice Bridge, Springfield Bridge), 1877-1888
Box 4, Folder 6  "Mr. Bender's Rejoinder" (Springfield Bridge), 1875
Box 4, Folder 6  "General Railroad News,"1875
Box 4, Folder 6  "Rapid Bridge Construction,"1875
Box 4, Folder 6  Springfield Bridge, 1875
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Box 4, Folder 6  "English and American Technical Societies,"1875
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Box 4, Folder 6  "Kingwood Tunnel,"1874
Box 4, Folder 6  "Patents" (railroads), 1874
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Box 4, Folder 6  "Working the Temporary Steep Gradients on the Baltimore and Ohio,"1874
Box 4, Folder 6  "The Scrap Heap,"1874

Box 4, Folder 7  1880-1894
Box 4, Folder 7  "The Panama Canal,"undated
Box 4, Folder 7  "Lesseps in the Field,"1880
Box 4, Folder 7  "The River Weaver Navigation and the Manchester Ship Canal,"1894?
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Box 4, Folder 7  "Mississippi Jetties,"undated

Box 4, Folder 8  1889-1895
Box 4, Folder 8  "North Tunnel All Right,"1891
Box 4, Folder 8  "Hudson Tunnel Railway,"1892
Box 4, Folder 8  "Put a Lien on the Tubes" (Hudson Tunnel Railway), 1892
Box 4, Folder 8  "This May Wind Up the Tunnel Company,"1892
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Box 4, Folder 9  "[...] James March Esquire,"undated
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Box 4, Folder 9  "The Loop and the Bridge,"undated
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Box 4, Folder 9  "Build the Canal" (Nicaraguan Canal), undated

Subseries 9.4: Oversized Printed Material, 1889-1892

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Box 25, Folder 4  Apotheosis of Washington Capitol Building Dome, undated
Box 25, Folder 5  Construction of second Washington Capitol Building Dome, 1859
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Box 25, Folder 7  Eastern Front Door North Wing of the Washington Capitol Building, 1859?
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Box 25, Folder 9  Cross section of second Washington Capitol Building dome and elevation of new dome, 1859?
Box 25, Folder 10  Early construction photo of new dome on Washington Capitol Building, old dome visible, 1855?
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Box 25, Folder 15  Tholus on Dome of United States Capitol (Statue of Freedom), 1859
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Box 25, Folder 23  Washington Aqueduct, sluice tower recg. [sic] reservoir, [1853-1859?]
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Box 26, Folder 10 Washington Aqueduct, bridge number 3, 1858
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Box 26, Folder 14 Engraving of T.N. Talfound by J. Sartain, undated
Box 26, Folder 15 Engraving of F. [Jeffrey?] by J. Sartain, undated
Box 26, Folder 16 Two sided drawing of unidentified church, undated
Box 26, Oversize 17 Cornice drawings, Temple of Pola, Arch of Adrian, Baths of Diocletian, Vesta Tivoli, Jupiter Tonans, Nero, undated
Box 26, Folder 18 Plate of painting containing religious imagery (Virgin Mary and Christ, Saint Benedict(?), and soldier), undated
Box 26, Folder 19 Neuschwanstein Castle, Bavaria, Germany, undated
Box 26, Folder 20 Photograph of painting of blind man with rosary and child, undated
Box 26, Folder 21 Plate of Warwick's Castle from Guy's Tower, Warwickshire, England, undated
Box 26, Folder 22 Printed map of Sardinia, undated
Box 26, Folder 23 Hand drawn botanical print, Maba Fuliosa, Maba Elliptica, undated
Box 26, Folder 24 Printed concept drawing for school buildings and church for the colored persons [sic: label on drawing] of St. Matthew's Parish, undated
Box 26, Folder 25 Printed concept drawing for the Hospital for the Insane of the Army and Navy and the District of Columbia, 1860-1861
Map-folder 18 Printed photograph of Panama Canal, undated
Map-folder 18 Map of Morningside Park, 1887
Map-folder 18 Plan of Mississippi Jetties, 1876
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