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609

White Family please return

CANVASS WHITE PAPERS (additional papers). 1814-1835. 609 pieces.
Canvass White (1790-1834) of Whitestown served in the War of 1812, made surveys on the Erie Canal, visited England to study canals, introduced hydraulic cement into the United States, manufactured cement with his brother Hugh at Chittenango, Madison County, was president of the Cohoes Company, chief engineer of the Delaware Breakwater, the Delaware & Rariton Canal, the Enfield Falls Canal, the Louisville & Portland Canal, the Union Canal, and consulting engineer for the Chambly Canal, the Chesapeake & Ohio Canal, the New York Waterworks, the Portsmouth & Lancaster Railroad, for improvements on the Union Canal, and for other engineering projects. His activities during the late 1820's and early 1830's, as expressed in a long series of letters to his brother Hugh, reflect the enthusiasm of the period for internal improvements. His early papers relating to the War of 1812 include petitions from officers at Fort Erie, Capt. Knapp's Company, N.Y. Volunteers, to Gov. Daniel D. Tompkins for indemnification for loss of baggage in the retreat from Lewistown, July 25, 1814. The papers relating to hydraulic cement include formulas and patents, manufacturing accounts, petitions to and investigations in the Assembly on the "cement monopoly", and correspondence relating to competition, lawsuits, and sales by Peter Remsen & Co. of New York. Among the manuscripts relating to his engineering activities are the Enfield Falls Papers (1824-1828) which include agreements, reports and estimates, and correspondence with Alfred Smith, president, Joseph Trumball, lawyer, and Edwin A. Douglass, engineer, relative to the construction, personal differences, and a lawsuit, Granger v. Smith; the Delaware & Rariton Canal papers (1825-1834) which include agreements, specifications, plans, contracts, monthly reports, labor, timber and other costs, documents relating to litigation with the Camden & Amboy Railroad & Transportation Co., correspondence with officials, engineers and others, and a final estimate of costs (1834); the Cohoes Company papers (1825-1835) which include agreements and correspondence concerning construction and litigation over a tow-path toll-bridge at the point of the crossing of the Mohawk River by the Champlain Canal; the Delaware Breakwater papers (1829-1831) which include agreements, contracts for the delivery of stone from Palisades and Maine quarries, accounts, and correspondence with Maj. Bender, Gen. Jessup, George Olmsted, Peter Remsen, and others; the Union Canal papers (1827-1834) which include estimates, costs, plans, and correspondence with William Lehman, William Read, and others; White's survey for the Erie Canal, sections 146-152, and correspondence concerning a canal project for the north bank of the Mohawk River and competition with the proposed Utica and Schenectady Railroad (1833); specifications for the Croton Aqueduct, and a proposal with specifications for an aqueduct from the Bronx River, and a discussion of the relative merits of the proposals; proposals and specifications for the Chambly Canal; a patent, release, and sales agreement for a canal loading scale (1829); specifications for a cannon foundry, railroad coal cars, canal locks, bridges, and other projects; excavation tables for the Louisville & Portland Canal; and a request (1827) from the office of the Secretary of War for White to investigate the estimates for the Chesapeake & Ohio Canal.

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... old ... # 609

Card Entries:

- | | |
|--|---|
| White, Canvass Papers | Water Commissioners of New York City |
| Aycrigg, B. | Whiting, Daniel |
| Bronx River (New York City water-supply) | Wolcott, William |
| Cahoon, Thomas | Wright, Benjamin |
| Camden & Amboy Railroad & Transportation Co. | Albany County (Cohoes) |
| Cameron, Simon | Connecticut (Enfield Falls Canal) |
| Chambly Canal | Madison County (Chittenango - cement manufacture) |
| Champlain Canal | New Jersey (Delaware & Rariton ^a Canal) |
| Chesapeake & Ohio Canal | Pennsylvania (Union Canal) |
| Cohoes Bridge Co. | Accounts (Canal Construction) |
| Cohoes Dam | Accounts (Canal labor) <i>located</i> |
| Connecticut River Co. (Canals) | Accounts (Canal stone) <i>located</i> |
| Croton Aqueduct | Accounts (Canal timber) |
| Delaware & Rariton Canal | Aqueducts |
| Delaware Breakwater | Armament |
| Douglass, Edwin A. | Bank Loans |
| Enfield Falls Canal | Bridges (Toll) |
| Erie Canal (Improvement) | Bridges (Tow-path) |
| Erie Canal (Stocks) | Canals |
| Erie Canal (Survey map) | Canals (Engineering plans & specifications) |
| Erie Canal (Tow-path) | Canals (Loading scales) |
| Jesup, General <i>Thomas S.</i> | Canals, New York, (Cement) |
| Lehigh Coal & Navigation Company | Canals (New York legislature) |
| Lehman, William | Can ^o n Foundry |
| Louisville & Portland Canal Company | Cement |
| New York Waterworks | Coal |
| Olmsted, George | Engineer (Civil) |
| Portsmouth & Lancaster Railroad | Lottery Tickets |
| Read, William | Lumber (Canal timber) |
| Remsen, Peter | Map (Erie Canal survey) |
| Rensselaer, S. Van | Military (Cannon foundry) |
| Smith, Alfred | Plans (Engineering) |
| Strover, George | Quarries (Palisades & Portland, Maine) |
| Trumball, Joseph | Railroads |
| Union Canal | Railroads (Specifications rails and cars) |
| Utica & Schenectady Railroad | War of 1812 (Niagara frontier) |
| Washington Canal | |

Papers shelved in boxes

NOTE: Two autograph items (Henry Clay and Daniel Tompkins) in Mss. file. For cards, see exhibit card file in Main Office. -- 1953

Canvass White Papers

Cornell University American Regional History Collection

COLLECTION 609, Box I (1814-1830)

- 1. A steel engraving of Canvass White, by Samuel Sartain, Philadelphia.
- 2. Canvass White to his father (Hugh White Senior), from Liverpool (England), January 21, 1818.

An account of tunnels and aqueducts visited in England, and particularly of an aqueduct over the River Dee in North Wales, consisting of "19 arches of cast iron about 46 feet span each supported by pillars of hewn stone upwards of 120 feet high; the waterway, towing path and railing are all cast iron."

- 3. William Elliot, Clerk's certificate of patent right to Canvass White to a cement, of which description of formula is certified in Canvass White's own hand. February 1, 1820.

- 4. Petition of Canvass White to Henry Clay, Secretary of State, on the subject of a letter patent obtained on February 1, 1820 by Canvass White as patentee of an hydraulic cement. Recorded January 20, 1820. In Canvass White's own hand except for endorsement.

- 5. No. 168 in Assembly, March 18, 1824. (New York)

- 6. No. 196 in Assembly, April 2, 1824. Reports indicating Canvass White's rights as patentee for his cement, supported by statements, from Benjamin Wright and DeWitt Clinton.

N. B. Since 1819, according to Wright, no structure of stone on the Erie Canal had been built without use of the hydraulic cement discovered by Canvass White. Benjamin Wright's letter dated March 10, 1824.

- 7. Canvass White to his father, from Canajoharie, November 23, 1822, a letter indicating the extreme business of Canvass White, his commercial interests and other concerns.

- 8. Canvass White to Samuel Mifflin, Esq. (President of Union Canal Company), from New York, July 10, 1823.

N. B. Attached to this in Canvass White's hand are descriptions of processes in making cement.

- 9. Canvass White to his brother (Hugh White Jr.), from Womelsdorf, August 12, 1823. (N.B. Canvass White is now working for the Union Canal Company)

- 10. No. 114 in Assembly, 1825. A committee report, confirming Canvass White's right to his cement, despite the objections of Timothy Brown and the latter's petition for ~~identification~~ indemnification.

- 11. No. 115 in Assembly, February 11, 1825, an Act paying Canvass White \$10,000 out of the Canal Fund, for his cement on understanding that he surrender all rights to his cement in New York State.

G. To near date end of February 1, 1820.

against this bit of business

(N. B. Apparently Canvass White maintained his rights as his brother and he were still producing cement in 1833.)

12. Canvass White to his brother (Hugh White Jr.), from Reading, May 11, 1825. Reprimands to Hugh on delay of shipments of cement in Pennsylvania, where they are needed.
13. Canvass White to his brother, from Reading, November 8, 1825. Canvass White in Reading to meet a committee of the Board of the Union Canal preparatory to the drawing up of the annual report. Business deals in timber. Canvass White in New York for the "grand celebration" (-opening of the Erie Canal), then back to Reading and his responsibilities there.
14. Canvass White to Hugh White Jr. from New York, December 10, 1825 - On a law suit and patent right? Canvass White eager to have Hugh White get down all the cement he can while the river is open.
15. Canvass White to Hugh White at Chattenango, Madison County, New York, from Reading May 16, 1825.
On cements, barrel stones, barrels and cheap transportation of these, etc.
16. Canvass White to Hugh White Jr. at Chattenango, from New York, September 25, 1825. On cement, and a supply of 6000 barrels for next year. On the price of "white oak" plant delivered to the Bridge at Cohoes Falls, New York.
17. A 7-page pamphlet, August 26, 1826, by "P." on the Union Canal, ordered printed by Matthew Carey of the Pennsylvania Society for Internal Improvement. (= a puff for the Canal, for its builder Canvass White, for the tunnel, for the water works in prospect, for prospective trade on the Canal.)
18. Canvass White to Hugh White Jr. at Chattenango, from Morristown, July 17, 1826. "I commended the survey of a canal and railroad on Tuesday last to extend from the mouth of Juniata River to Allegheny River." Canvass White has been "up the Juniata to the head of the stream and to the top of the Allegheny Mountain," and has returned. Mr. Olmstead now in charge of the party. "I must fit out another party to run the railroad line over the Mountain as that requires a different kind of operation from canal leveling."
19. William Elliott, from Patent Office, to Canvass White on matter pertaining to his patent rights for cement and modes of correcting errors in earlier phrasing of patents, *Aug 8, 1826.*
20. Canvass White to Hugh White Jr. from Bethlehem, Pennsylvania, where Canvass White apparently is interested in the Lehigh Navigation Company work, August 26, 1827.
21. Canvass White to Hugh White Jr. from New York, August 30, 1827. (now at Kinesville, Orange County, New ~~York~~) On some business for the Delaware and Hudson Canal and apparently works for the Lehigh Navigation Personalia. Louisa and 2 children ("indisposed with whooping cough") with him in Bethlehem. Canvass White meditates on retiring "from the

arduous occupations" etc.

22. Canvass White to Hugh White Jr. from Troy, New York. Canvass White [1827] must go to Lebanon and be detained there a few days.
23. Canvass White to Hugh White Jr. from Troy, New York, November 22, 1829. Canvass White must go to Hartford to settle up concerns of the Enfield Falls canal, thence to New York, and to Mauch Chunk to make a final settlement with the Lehigh Company. "Mr. Olmstead came with me from New York and is desirous of making strong efforts to regain the cement market which I think ~~are~~ ^{were} lost by inattention."
24. Canvass White to Hugh White Jr. from Lebanon, Pennsylvania, December 10, 1827. Excerpt: "I wrote to you a few days since requesting you to be at New York by the 25th of this month. I find that I shall not be able to reach there by that time in consequence of a project I have in negotiation to build a bridge over the Susquehanna at the mouth of the Juniata if I succeed as I expect I shall make a snug little sum by the operation. My prospects at present are so fare that it is an object for me to wait the movements, of the waters, the decision will be made the last of this month," etc.
25. Canvass White to Hugh White Jr. from New York, December 31, 1827. A letter on cement deals, on Canvass White's prospective movement in connection with the Lehigh Navigation Company. The Delaware and Hudson Canal, affairs in Harrisburg and Lebanon, Pennsylvania, etc. Canvass White "fearful that I shall not be able to settle up my business," in Pennsylvania in time to meet a note at a bank in Utica, New York at which Hugh White is to review Canvass White's note for 30 days.
26. Canvass White to President and Directors of the Connecticut River Company, March 12, 1827. Canvass White draws up his terms, for serving the Company as chief engineer at \$2000 a year plus travel expenses, etc., and working 4 months in the year for them.
27. Canvass White to Hugh White Jr. from Philadelphia, March 18, 1827. Canvass White leaves tomorrow for the Union Canal; he has engaged with the Lehigh Coal and Navigation Company to take charge of their improvements on the river. "This with my engagement in Connecticut, the Bridge and Union Canal will keep me very busy for a while, perhaps two or three years more from home. The prospects of gain will make us forego many of the comforts of life in hopes of enjoying them hereafter, which by the by is generall postponed until it is too late." [sic] [sic.]
28. Philadelphia, October 25, 1828. Resolutions of the Stockholders of the Louisville and Portland Canal Company, (who were Thomas Biddle and apparently other Philadelphia gentlemen interested in investments in canals) to engage, if he is available, Canvass White as their chief engineer, and to arrange contract with him.
29. Canvass White to Hugh White Jr. from Bethlehem, December 2, 1828. A letter indicating that Hugh White is also serving on the Lehigh Canal, and informing Hugh White of a trip being made by Josiah White and Canvass White to determine what shall be done with the Easton

Dam. "Mr. Welch (Sylv. W.) and myself will probably be at your work tomorrow."

- / 30. Canvass White to Hugh White (in Allentown), from Reading, June 30, 1828.
- / 31. Canvass White to Hugh White (in Allentown), from Bethlehem, July 6, 1828.
N. B. Both letters contain references, although not specifically by name, to business of the Whites in Pennsylvania.
- / 32. October 23, 1829. Costs of Railroad coal maggons as used in the Lehigh Coal and Navigation Company's Railroad. Specifications for parts and costs of them.

/ 33. Lehigh Coal and Navigation Company to Canvass White		Dr.
April 23	to Benjamin Ayerigg	Bill for Services \$ 94.06
September 3	to A. B. Warford	Bill for Expenses 1,475.29
September 15	to Sylvester Welch	Bill for Expenses 2,317.87
December 17	to John Hopkins	Bill for Expenses 2,927.81
December 17	to William M. Roberts	Bill for Expenses 1,770.45
December 17	to My services as Engineer	2,500.00
December 17	to Contingent expenses	56.10
		11,140.58
Cr.	By Cash at Mauch Chunk office Sundry Times	9,807.22
		1,333.36

N. B. This account reveals as associates of Canvass White a number of figures afterwards eminent in the Public Works of Pennsylvania and in the building of Railroad; canals, etc.

- / 34. Articles of Agreement, October 10, 1829, between Thomas Cahoon and other gentlemen, including Canvass White, to put on the market a new boat gauge for determining the weight of boats and their loadings without the use of the ordinary weight lock. The device has been made and patented by Cahoon.
- / 35. Printed descriptions (undated) as from Troy, 18- detailing the advantages of the boat gauge.

[1830

N. B. During this year correspondence indicates Canvass White's connection with the construction of the Delaware Breakwater at Cape Henlopen.

- / 36. Canvass White to Hugh White (in New York), from Mauch Chunk June 18, 1830, a letter indicating Canvass White's activities in Pennsylvania (among other interests) at New Hope, Lebanon, Easton, and elsewhere.
- / 37. Canvass White to Hugh White, from Easton, June 26, 1830. Many details of business. Canvass White about to go to Louisville by way of Washington, D.C., in the interest of the Louisville and Portland Canal.
- / 38. Hickman and Wert to Canvass White (at Lebanon) March 3, 1830.
- / 39. Canvass White to Hugh White from Harrisburg, March 8, 1830. Personalia. Delaware breakwater contracts. Canvass White going to Lebanon, to be detained there a short time.

- 40. Canvass White to Hugh White, from Philadelphia, March 16, 1830. No mention of work done at Lebanon between the 8th and the 16th.
- 41. Canvass White to Hugh White, from Louisville (Ky.) January 21, 1830. Canvass White has "chalked out large business for Hugh", etc. Hugh White directed to write Canvass White at Lebanon, Pennsylvania.
- 42. Canvass White to Hickman and Wert, from Louisville, February 13, 1830. His correspondents to address Canvass White at Lebanon.
- 43. Canvass White to Hugh White from Philadelphia, August 19, 1830. Canvass White must go, unexpectedly, to Mauch Chunk, where "it appears nothing can be done without me", to solve the riddle of locks decayed and out of use at the commencement of the Lehigh Canal, causing a serious damage to the business of the company in coal transportation.
- 44. Canvass White to Hugh White from New Brunswick, September 21, 1830. On financial problems and the critical state of the affairs of the "Doct.", who has got himself into "taught traces" by his taking a large slice of the loan to the Louisville and Portland Canal Company and on the question of what arrangements Canvass White and Hugh White can make themselves to weather the storm.
- 45. Josiah White, from Mauch Chunk, 10 mo 5, 1830 (-October 5, 1830), to Canvass White, Esq., Chief Engineer of the D & Raritan Canal, Princeton, New Jersey.

N. B. A letter from a leading official of the Lehigh Navigation Company on specifications for rails, with some description of rails in the Lehigh Navigation Company's railroad, of stone curbs, etc.

46. William M. Roberts 1830

Stage fare	\$4.00
Stationary and Axe	10.25
Rodman, Chairman and C. Amount paid	55.87½
Boarding Bills paid	116.10
My own services to July 1st 150 days at \$3.	450.00
	<u>636.22½</u>

R. Ayerigg Expenses	\$ 947
Wages.	<u>1,068</u>
	2,015
Welch.	17
Gorton.	<u>75</u>
	2,107

N. B. On the reverse, in Canvass White's hand,
 "William Roberts
 Expenses
 U. C. Company

- 47. Moncure Robinson to Canvass White, from Port Clinton, Penna. October 5, 1830.

Canvass White Papers, 609, Box I. 1814-1830.

Port Clinton, Pennsylvania
October 5, 1830

Canvass White, Esq.

Dear Sir:

Your letter of the 30th Ult: is this evening received. In reply to your first query I send you the inclosed plan and specifications copied from the drawing prepared for the iron-masters. You will observe that the bars are flat on top (so as to give an equal bearing) except at the edges, where they are rounded to prevent wear--the periphery of the wheels.

In reply to your inquiry as to the length to be preferred for bars, I should say it was not material provided it did not exceed twenty feet; beyond that length the effect of warm or cold weather in expanding & contracting the bar becomes inconvenient. I would deem it however a good rule to have the wooden and plate rails of the same length and to give to the latter not more than 12 or 15 inches lap on the former. In this case, in the event of having to reset any part of the road, the wooden and plate rails may be taken up together without detaching the plate rails, except at their ends. The number of holes in any rail I would put in about the same proportion in which they are placed in the Little Schuylkill rails.

3^d- to weight. A bar of iron one foot long 2 inches wide and half an inch thick weighs $3\frac{1}{2}$ lbs. Of course 10560 feet of rails (the quantity required for a single track) 2 inches wide by $\frac{4}{10}$ ths thick (the Little Schuylkill dimension) would weigh $12\frac{1}{2}$ tons. This thickness would probably be quite sufficient for light engines on the plan of the Novelty, or such as will probably be hereafter used. It might be safest however for the present where Locomotive power certainly was to be adopted to give some additional thickness and I should prefer $\frac{1}{2}$ an inch. This however I should deem abundantly sufficient.

3^d- As to the weight of spikes. - Those ordered for the Chesterfield Rail Road in Virginia are about $4\frac{1}{4}$ inches long and weigh about 12 to the pound. I should prefer them $4\frac{1}{2}$ or $4\frac{3}{4}$ inches long and weighing about 10 to the pound for rails $\frac{1}{2}$ an inch thick an average distance of a foot apart. We should of course have about 105 lbs to the mile. Suitable spikes cost from $8\frac{1}{2}$ to 9 cts.

4th As to the cost of putting down rails. It is difficult to reply to this query with precision, so much depending on the manner in which the work is done. I should say, however, that \$300 per mile ought to pay for dressing the wooden and laying down the plate rails of a single track Rail Road in the best manner. In Baltimore twice this sum was paid and twice as much I think as ought to have been.

I should observe before leaving this subject that for a railroad on which Locomotive power is to be employed I think a different form of rail should be adapted in short curves from that herewith transmitted. The thrust of the wheel of a Locomotive Engine tends to force off such a rail on the outer curve and this effect it seems to me should be a ----- by giving to the rail itself a flange or lip on the ----- . The additional weight of a rail of suitable form would be in any given length probably

increased one fourth.

With very high respect and esteem, I am Dear Sir

Your obedient Servant

Moncure Robinson

N. B. On the reverse Canvass White records date and

"M. Robinson
Railroad Iron *g*"

and also

"Haven and Smith Philadelphia will furnish Railroad Iron
Company. \$57. per ton for incorporated Company. Add \$20 for
private use.

Canvass White, Esq.
Civil Engineer
Princeton, N. J.

48. Canvass White from New York, August 6, 1830, to Hugh White Jr., in Utica. A letter of good wishes to Hugh White "on nearing the darling pledge", on happiness ahead, on Canvass White's business and professional interests.

Excerpt: " My reputation stands high and it is of vast importance to me to keep it so, and my sustaining my own yours can be kept up also."

Canvass White Papers

COLLECTION 609, Box II (1830-1833)

1. William Read (President Union Canal Company), from Philadelphia, April 15, 1831, to Canvass White in Princeton.
On boatmen who make false returns of their cargoes, and the matter of locating a weigh lock at Middletown near the outlet lock there, with drawing for position submitted by Mr. Read.
2. William Read, from Philadelphia, December 17, 1832, to Canvass White on a rise in the Susquehanna which has brought down considerable lumber, with recommendation for purchase for repair uses on the Union Canal.
3. William Read, from Philadelphia, December 24, 1832, to Canvass White, a letter with resolutions annexed. These call for aid from Canvass White for completing a number of repairs or constructions before opening of the Union Canal for navigation in the spring of 1833.
 - a. Repair trunk feeder.
 - b. Remove rock projections from tunnel.
 - c. Altering large wheel at Water Works.
 - d. Planting 'strapping posts' in the side of the lock wall at the upper end.
 - e. Manufacture of brick for the new culvert^{vert}.
 - f. Purchase of land for brick, etc., etc.
4. Thomas P. Roberts (Treasurer Union Canal), from Philadelphia, November 22, 1832, to Canvass White. A note inclosing a resolution of the Board to have Canvass White communicate the repairs requisite to insure uninterrupted navigation and costs necessary for such repairs.
5. William Lehman (^{ident} Research Engineer, Union Canal), from Lebanon, October 24, 1833, to Canvass White, answering Canvass White's letters of 18th and 21st ^{inst.}. On the subject of the Union Canal Company's Water works. Referring Canvass White to Mr. Roberts, for the exact cost of Steam Engines with their pumps and the pumps at the Water works with William Lehman's estimates of the water ^{p. h.} to be raised ^{by} these aids.
6. Canvass White from Princeton, New Jersey, November 12, 1833, to the Hon. S. VanRenselaer, President B. Canal Commissioners (N.Y.). A letter trying to protect the interest of canal ways against possible exclusions from routes by reason of new Railroad's like the proposed Utica and Schenectady Railroad. Canvass White wants canals and railroads to be mutually helpful.

N. B. This is interesting as biography of Canvass White.
7. Canvass White, from Princeton, November 18, 1833 to Michael Hoffman. A letter answering one from Hoffman. Canvass White, as President of the ~~Cohoes~~ Company, ^{notes} of the rights of that company.
~~Cohoes~~
8. Canvass White, from Philadelphia, December 31, 1833, to Hugh White, at Waterford, Saratoga County, New York. A brief letter

on precarious declines in value of stocks; and on Canvass White's health, which has not received any injury from the excursions, altho the weather was unfavorable.

9. Estimate of work done on the Middle Division of the Delaware and Raritan Canal during the month of August 1833.
N. B. This estimate drawn by George T. Olmsted, Assistant Engineer (who was Canvass White's assistant when he joined the Union Canal Company and when he examined the Juniata for a canal for Pennsylvania)
10. Jacob Palmer, from Windsor (Berks County, Pennsylvania?), January 3, 1833, to Canvass White after Jacob Palmer has perused a letter from Canvass White. Jacob Palmer has informed William Lehman that he cannot make bricks for the Union Canal 'tunnel' (Doesn't Mr. Palmer mean the 'trunk feeder' or long cylindrical feeder?) out of the sand available at Womelsdorf. And Jacob Palmer does not want to try to produce anything which is not thoroughly brick.
11. William Lehman, from Lebanon, February 3, 1833, to Canvass White, at the Union Canal Office in Philadelphia. A letter hoping the "pump question", as well as a number of others, may be settled. William Lehman comments on Mr. Guilford'd having a contract for supplying cement. "Mr. Guilford would be a very suitable person for this business as he is well acquainted with the manner of preparing cement. Mr. Guilford has not said anything about meeting you in the city."
12. B. Ayerig to William Read, President Union Canal Company, from Lebanon, February 23, 1833. This copy is forwarded by Mr. Read to Canvass White.
Content: A thorough review of conditions and problems on the Union Canal, with recommendations of B. Ayerig for solutions at locks, feeder, summit level, aqueduct, etc. Mr. Ayerig went in to look at the wheel and the proposed alterations and will "write to Mr. White my views on the subject."
13. "Confidential"
Canvass White from New York, April 25, 1833 to the Hon. Alpheus Sherman, (Senator). A letter expressing Canvass White's views as to the necessity of revising provisions of the New York Assembly's bill incorporating the Schenectady and Utica Railroad, and reviewing canal history in New York State and Canvass White's own part in it. Interesting and important as the expression of an experienced canal engineer and for biography of Canvass White.

Canvass White Papers

COLLECTION 609, Box ~~III~~^{II} (1834-1835)

1. B. Ayerig, from Lebanon, May 15, 1834, to Canvass White in Princeton. A letter on the construction of the cylindrical feeder of the Union Canal, in which B. Ayerig detailed numerous problems, requests the counsel of Canvass White. This is written at the prompting of William Lehman, Resident Engineer of the Union Canal.
2. B. Ayerig from Pine Grove, April 25, 1834, to Canvass White on the subject as described above.
3. William Read (President Union Company), from Philadelphia, March 28, 1834, to Canvass White in Princeton. On B. Ayerig's surveys for a new route for the feeder from the Water Works on the Swatara to the summit level.
4. Simon Cameron, from Middletown, August 9, 1834, to Canvass White, in Princeton. An invitation from the managers of the Portsmouth and Lancaster Railroad for Canvass White to examine "the location and estimate which they propose to make." They know that he has determined not to take entire charge of any new work, but hope he may be induced to give them such time as he can for the purpose.
5. Canvass White from Princeton, September 3, 1834, to Hugh White, in Waterford, Saratoga County, New York. On the serious condition of Canvass White's lungs and plans for him to go to St. Croix with a young physician as his companion.

6. Undated: Estimate of the amount of funds required to complete the works of the Union Canal Company

Railroad and Branch Canal	\$38.00	
Towing Path on Great Dam	23.00	
Pump	3.50	
Boat Channel across Feeder Dam	17.00	
Lock Houses at Locks 2, 8, 9, & 11	12.00	1200.00
Summit Level, living bottoms, etc.	12,270.00	
Widening Tunnel (\$750)		
Eastern Division	11,145.00	
Western Division	2,350.00	
Brick Tunnel for Feeder		
with very full specification	23,990.00	
Wooden Tunnel over ravine	6,480.50	
Remove Main from old Engine		
House 300 feet additional main		
needed to reach stone work of		
brick tunnel	2,650.00	
Large Water Wheel and making		
of an overshot wheel		
Removing old Engine, Etc.		

N. B. This estimate, totaling \$76,978.70 was prepared by William Lehman, Resident Engineer, for Canvass White's approval.

7. Undated. Long photograph of recommendations of Canvass White to the President and Managers of the Union Canal Company of Pennsylvania.

In Canvass White's hand (On canals and railroads, masonry, the great feeder, etc.)

8. Undated. Long message on plans for planking part of the summit level of the Union Canal; on the tunnel; on grading for the railroad at Pine Grove to the Coal region. In Canvass White's hand. Etc. with a table of costs appended for repairing trunk feeds, etc.



- ✓ 1. Canvass White from Womelsdorf, June 30, 1824, to Captain Hugh White (-Canvass White's father), c/o Mr. Francis Olmsted, N.Y. N. B. A letter which, while its main subject is business matters concerning the White family, indicates that Canvass White will be engaged in Union Canal work through July, 1824.
- ✓ 2. Canvass White, from Reading, October 18, 1823, to Hugh White Jr. Ague and fever, and a sickness in the Tulpehocken.
- ✓ 3. Canvass White, from Mauch Chunk, September 12, 1829, to Hugh White Jr. A letter which indicates that Canvass White's time is for the time being divided between the Union Canal and the Lehigh Navigation Company.

where does this fit in?

These letters are in Canvass White Collection #609. The collection consists of 2 boxes (numbered I, II) and is arranged chronologically, each box marked with ^{its} ~~the~~ inclusive dates. These 3 letters are in box I

But really should be in H.W. >>

KJ, S. S. 11/30/60

Plans of bridges, dams, locks, etc. in Canvass White Papers, undated material, #609

Box 2

Draw bridge wheels.

Map of Scuddens Farms and nearby canal, near Delaware River.

Geddes plan of Dam between Troy and Lansingburg.

Estimate and plan of lock walls, no location given.

Drawing of stone arches.

Plan of Prattsville Dam.

Plan of Guard Lock

Plan of Bridge Trundle.

Plan for Retractable Bridge, 1825.

Plan for listing Gates at Follets Dam.

Plan for Haverlands Dam.

Plan for Schoharie Creek Dam.

Plan and estimate of cost for Dam for Village rapid .

Plan of Dam for Mohawk at Cohoes.

Plan of Dam for Mohawk at Cohoes.

Drawing of an area of land called "Croswick"

Drawing of lots adjacent to unidentified canal, owned by Mrs. Higbee, R. F. Stockton, Geo. Sherman. Location not given.

Guard Lock.

Plan of Mitre Cill.

Plan of Centre for Arch.

Plan of Dam for Mohawk River, estimate included.

Plan for Aqueducts.

Plan for Circular Culvert.

Drawing of Guard Lock.

Plan for unidentified Dam.

Plan for Lock Gate.

Plans in Danvass White Papers, cont. -2-

Plan for stonework for Dam.

Plan of Road Bridge for Sandy Hill feeder.

Plan and estimate of a Dam for a Feeder at Village Rapid.

Erie Canal survey map of sections 146 to 152, around Schenectady. Undated.

J. Lamb, 4/62. Prepared in connection with answering letter to Mrs. Shepard of the Avery Press, Westport, Conn.

Note on additional canal material, see: .

#661 Sunbury Canal Reports. 1837-1853. 3 items.

First Report of the Wading River Manufacturing and Canal Company, with the charter thereof, Aug. 1, 1837, Philadelphia: L.R. Bailey, Printer; An Account of the Sunbury Water-Power Canal - with an estimate of finishing the same, and a synopsis of the Charter, 1842, with plan and profile of the canal attached; The Sunbury Canal and Water-Power Company, and Sunbury Lumber and Car Manufacturing Co., with maps and colored engravings attached: Philadelphia: McLaughlin Bros., Printers, 1853.

Canvass White's patent for water proof cement ^{# 609 m}
signed by Henry Clay, Nov. 30, 1825.

Canvass White's commission as a first Lieutenant in
the N.Y. Volunteers, signed by Daniel D. Tompkins,
Governor, June 1, 1814.

In mss. file, ~~Box 12, 514-6-3~~
Box 78, file 609m

Box 78
K 107-B-4-A

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Also, Canvass White photostats; see Acc. # 822m.