



Mississippi River Steamboat Bi-Centennial

OLLI at WVU
Spring 2012

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Mechanical & Aerospace Engineering

My Website

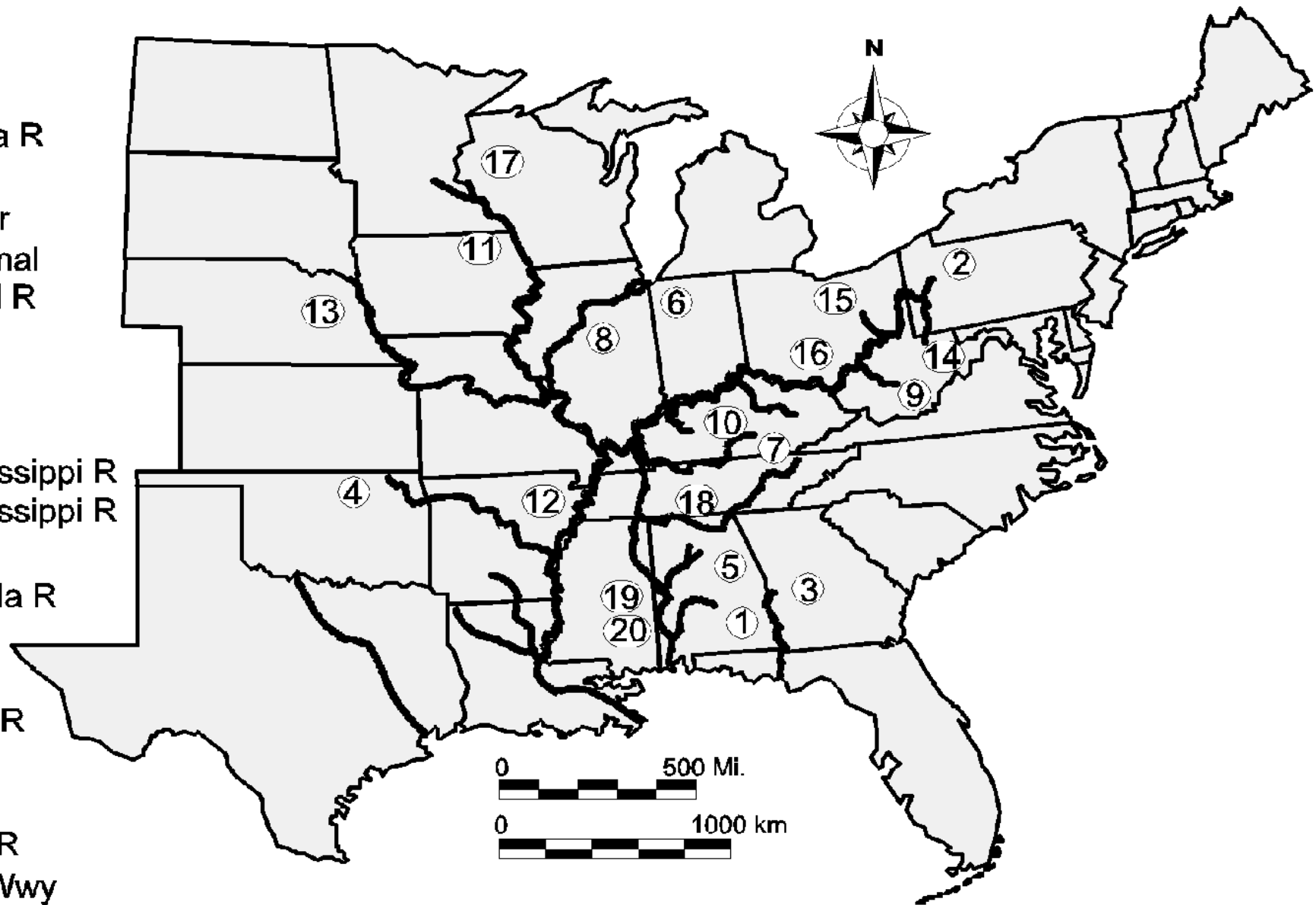
www.Wallace-Venable.name

Class resources in OLLI at W V U section

- .PDF files of class presentations
- Reading materials

- ① Alabama R
- ② Allegheny R
- ③ Apalachicola R
- ④ Arkansas R
- ⑤ Black Warrior
- ⑥ Chicago Canal
- ⑦ Cumberland R
- ⑧ Illinois R
- ⑨ Kanawha R
- ⑩ Kentucky R
- ⑪ Upper Mississippi R
- ⑫ Lower Mississippi R
- ⑬ Missouri R
- ⑭ Monongahela R

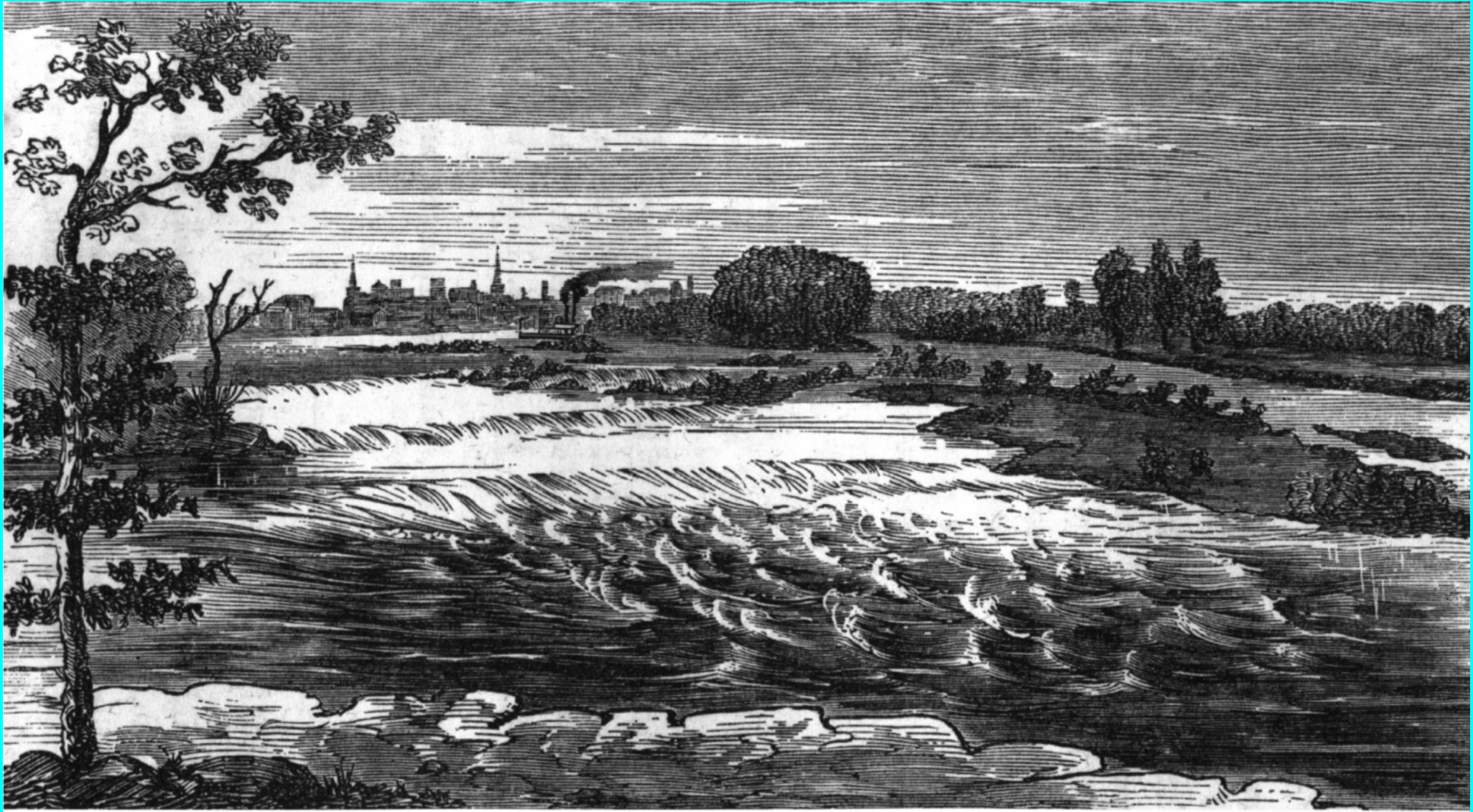
- ⑮ Muskingum R
- ⑯ Ohio R
- ⑰ St Croix R
- ⑱ Tennessee R
- ⑲ Tenn-Tom Wwy
- ⑳ Tombigbee R



The Western Rivers

Waterways Improvements

- Rocks & Rapids
- Snags
- Low Water
- High Water



An etching of the Falls of the Ohio River, 1811

John Adlum's map

(1790)

Dr. Leland R. Johnson

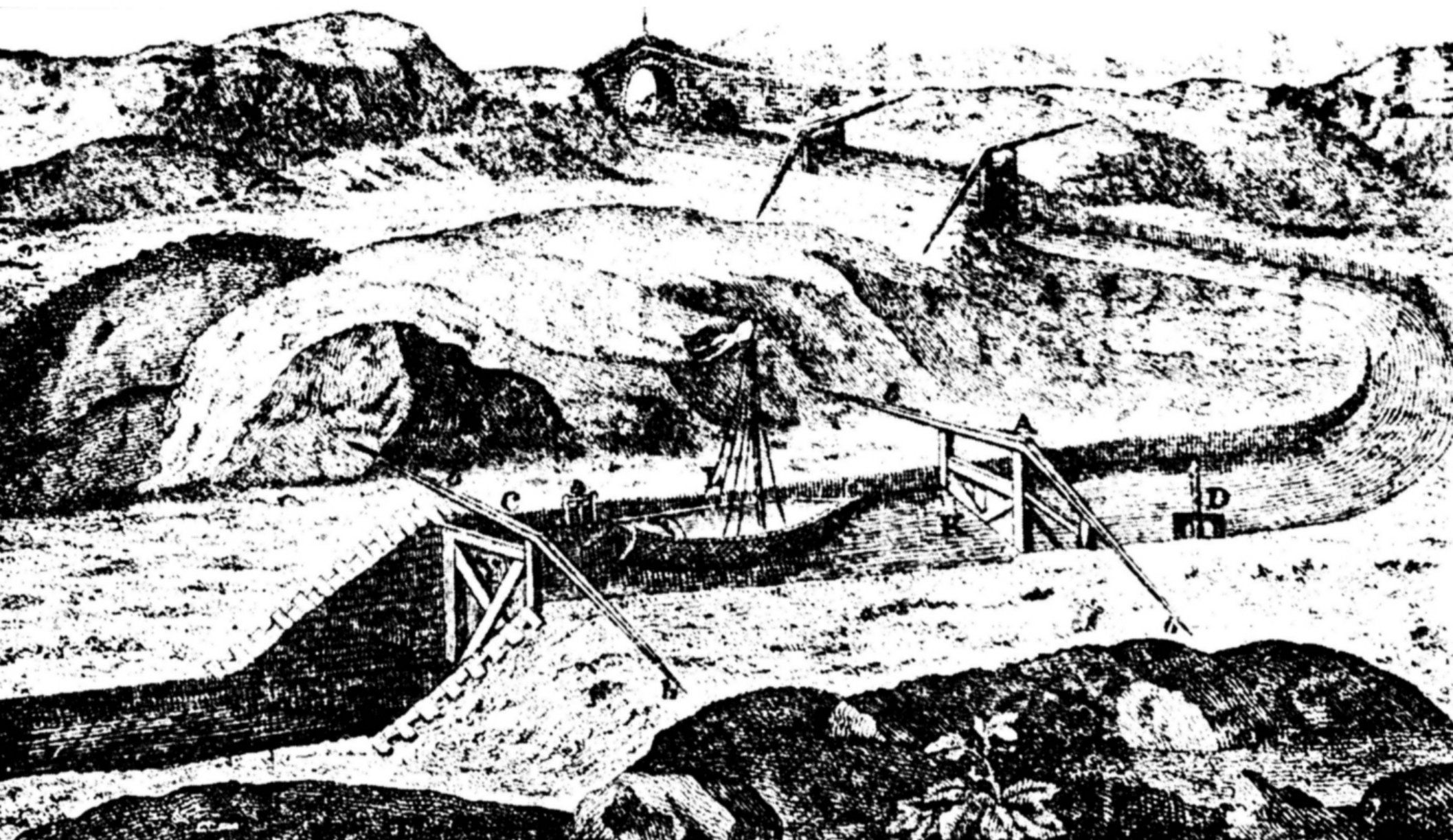
XY (Fig. 1.) are the two flood gates, each of which consists of two leaves, resting upon one another, so as to form an obtuse angle, in order the better to resist the pressure of the water, the first (X) prevents the water of the Superior Canal from falling into the Lock; and the second (Y) dams up & sustains the water in the Lock, these flood gates ought to be very strong, and to turn freely upon hinges, in order to make them open and shut with ease, each leaf is furnished with a long lever A b, A b; C d, C d. they should be made very tight & close, that as little water as possible may be lost.

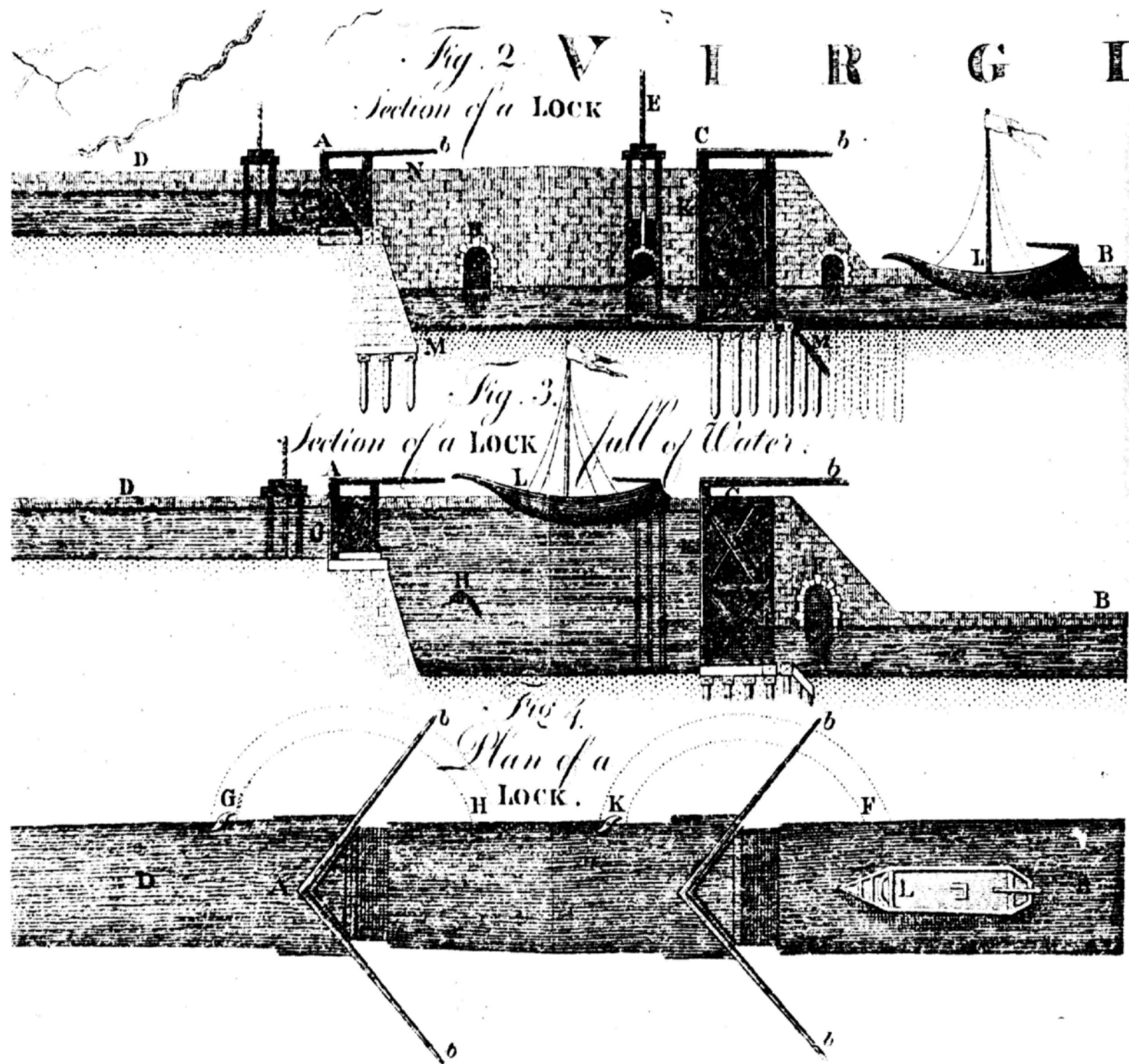


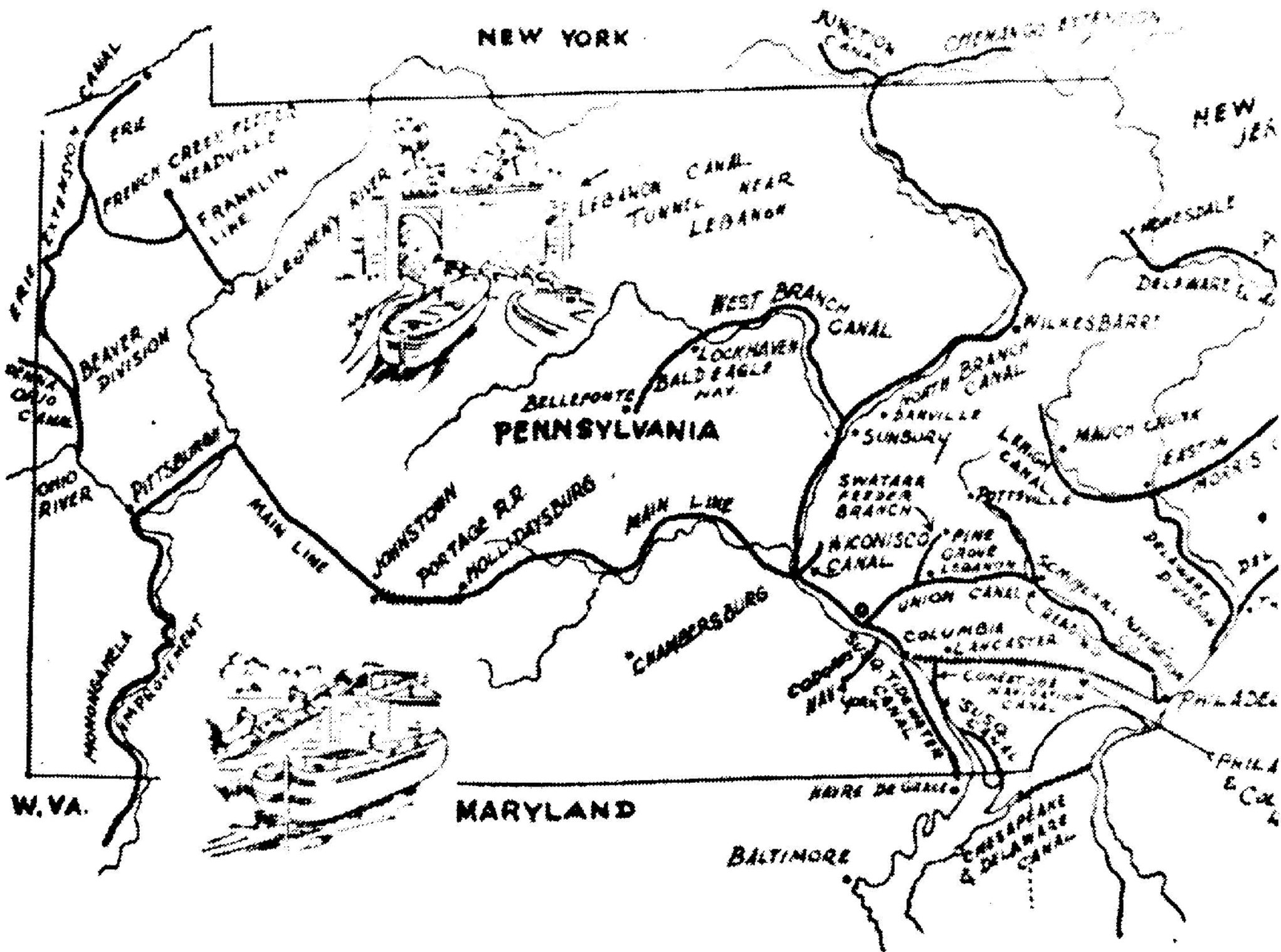
Design of navigation locks

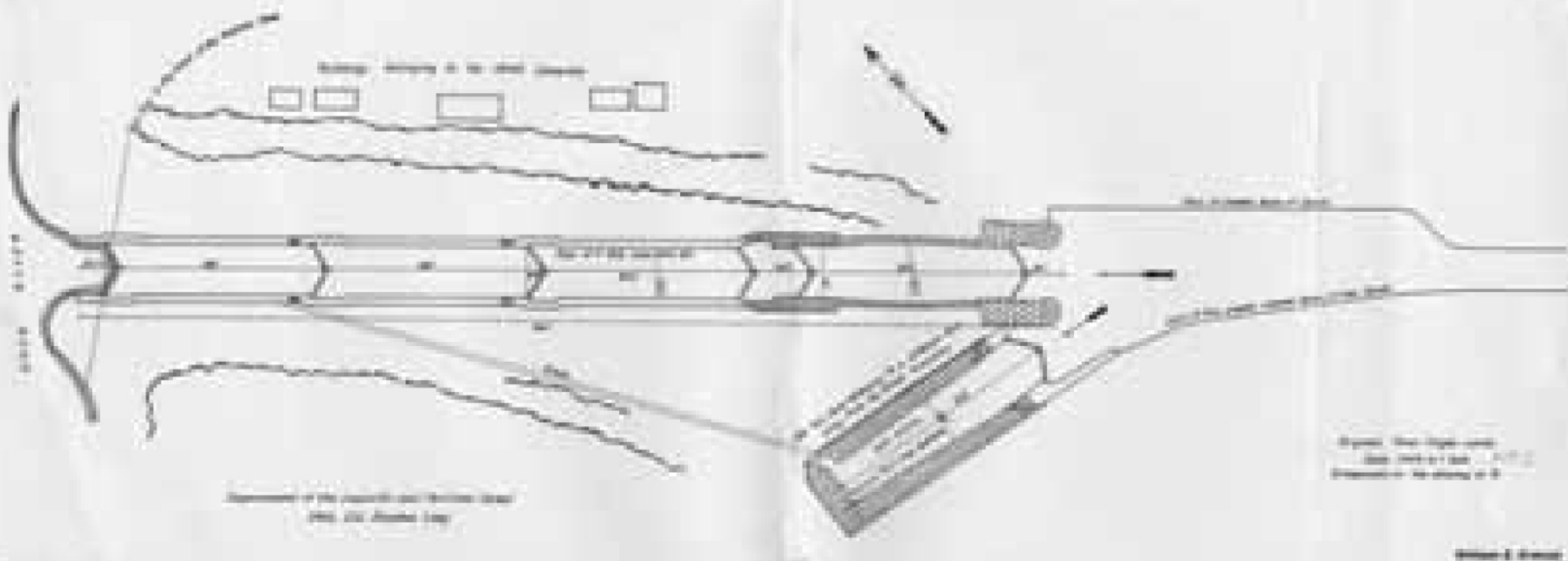
John Adlum's map

Dr. Leland R. Johnson









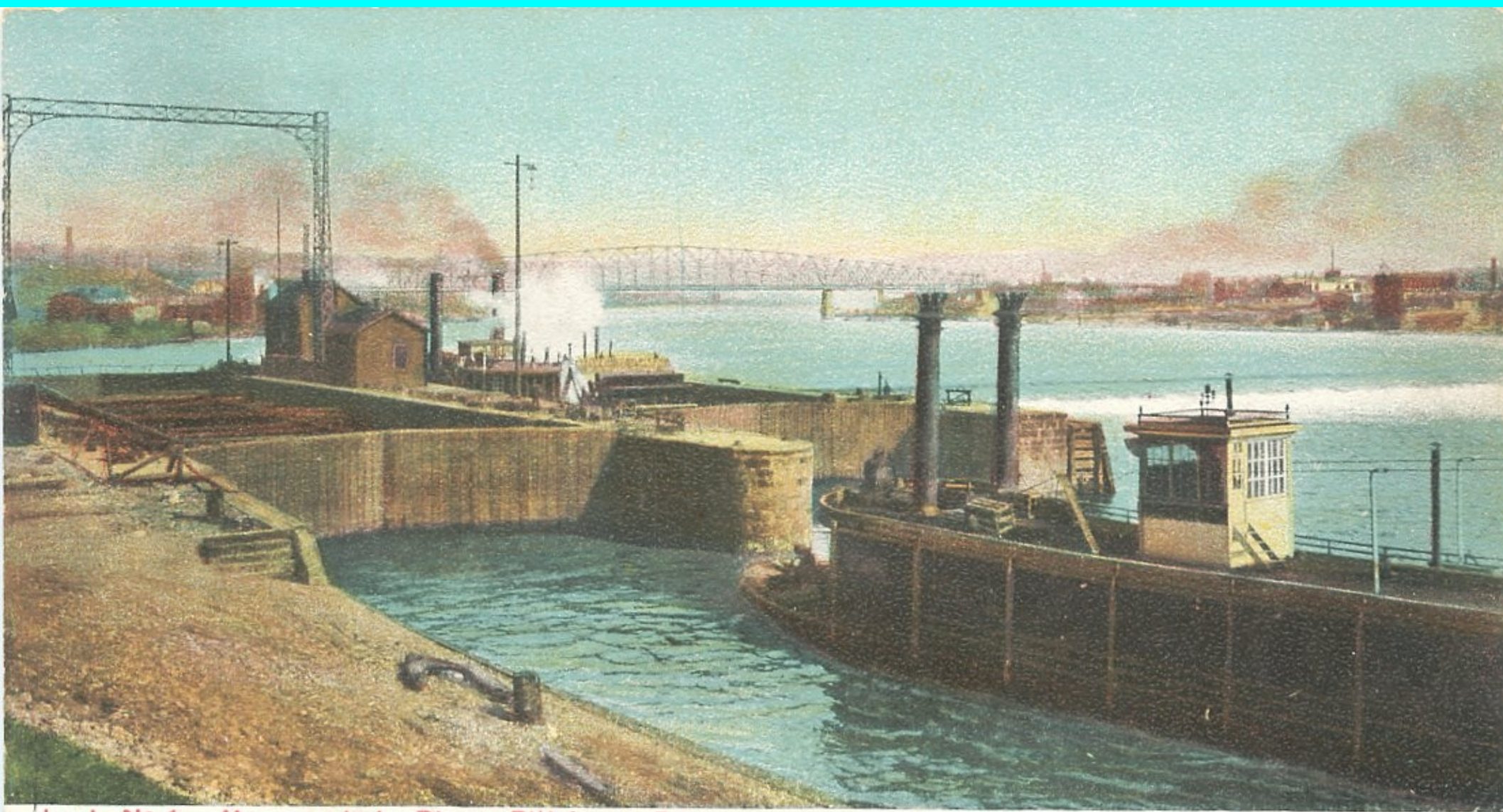
Col. Stephen Long's 1848 plan of the original locks and drydock.



The Monongahela Navigation

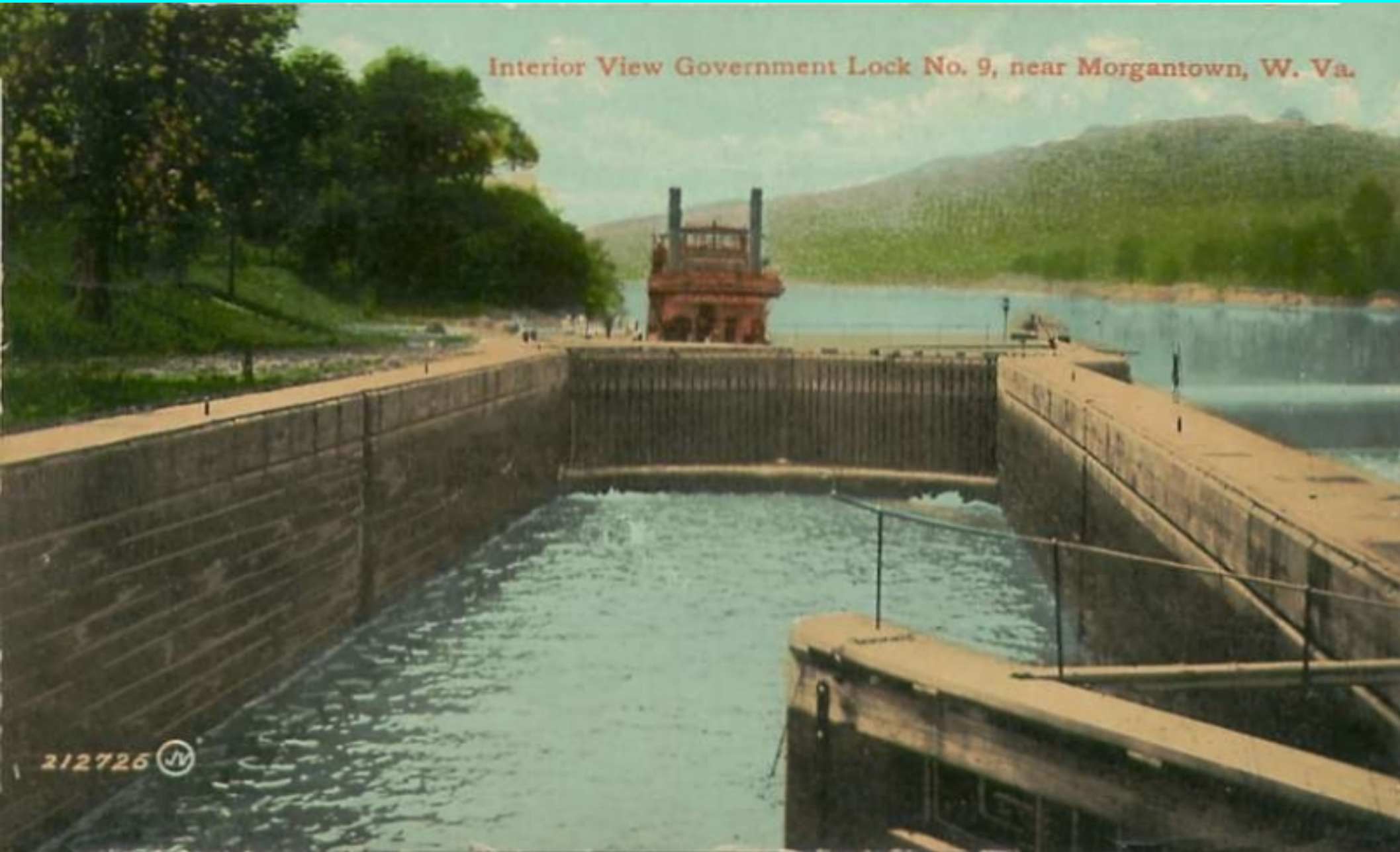
- VA charter to Congressman George Jackson for West Fork – 1793
- PA Monongahela Navigation Company – 1817
- Corps – planning grant – 1872, construction begun - 1873
- Federal purchase of Monongahela Navigation Company – 1897





Lock No 1. Monongahela River, Pittsburg, Pa.

Interior View Government Lock No. 9, near Morgantown, W. Va.



212725 (M)



Government Lock No. 9, Monongahela River, near Morgantown, W. Va.

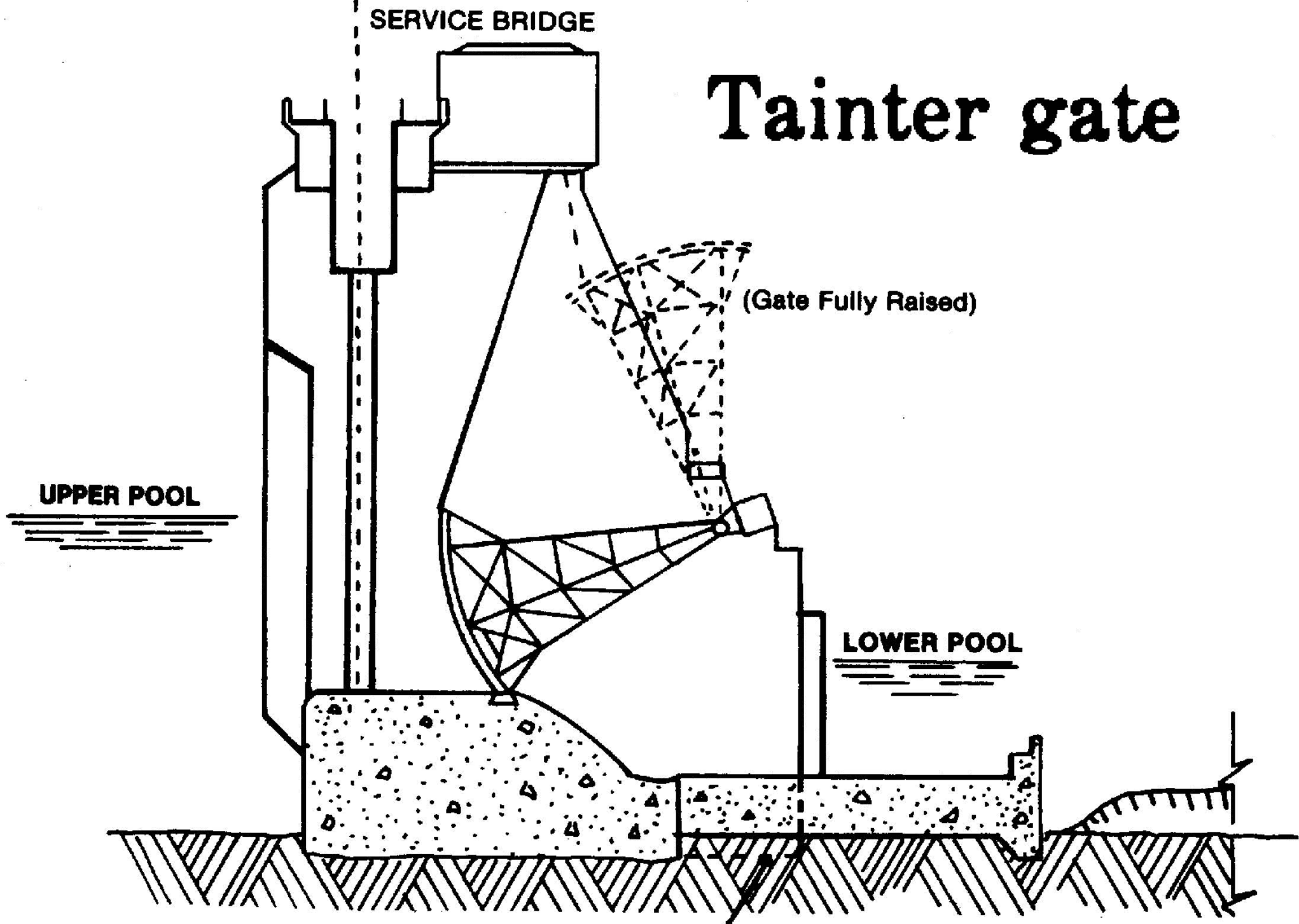
212724 (JV)



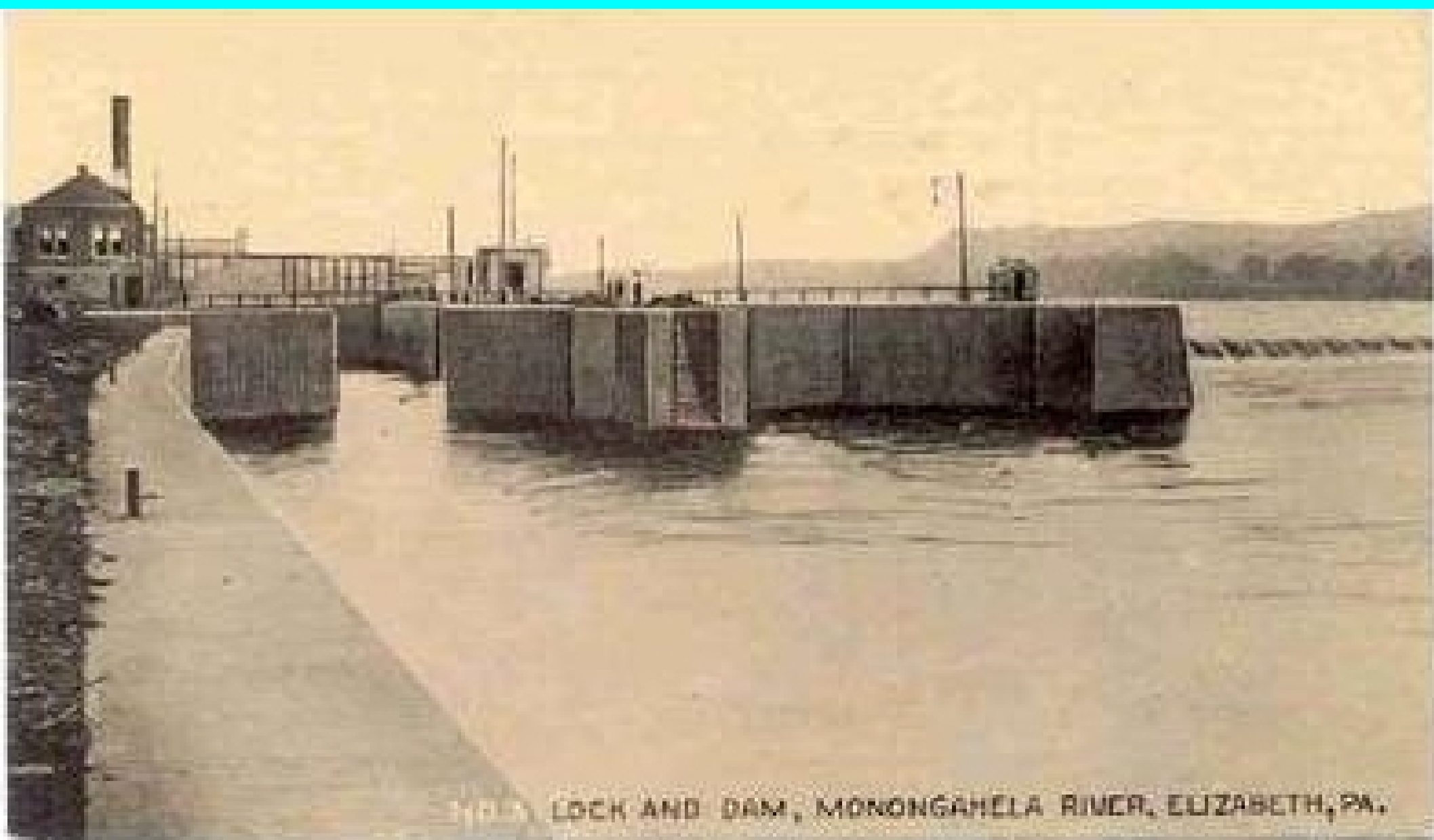


|Opekiska Lock and Dam

Tainter gate







LOCK AND DAM, MONONGAHELA RIVER, ELIZABETH, PA.

B. & O. Bridge,
Parkersburg, W. Va.

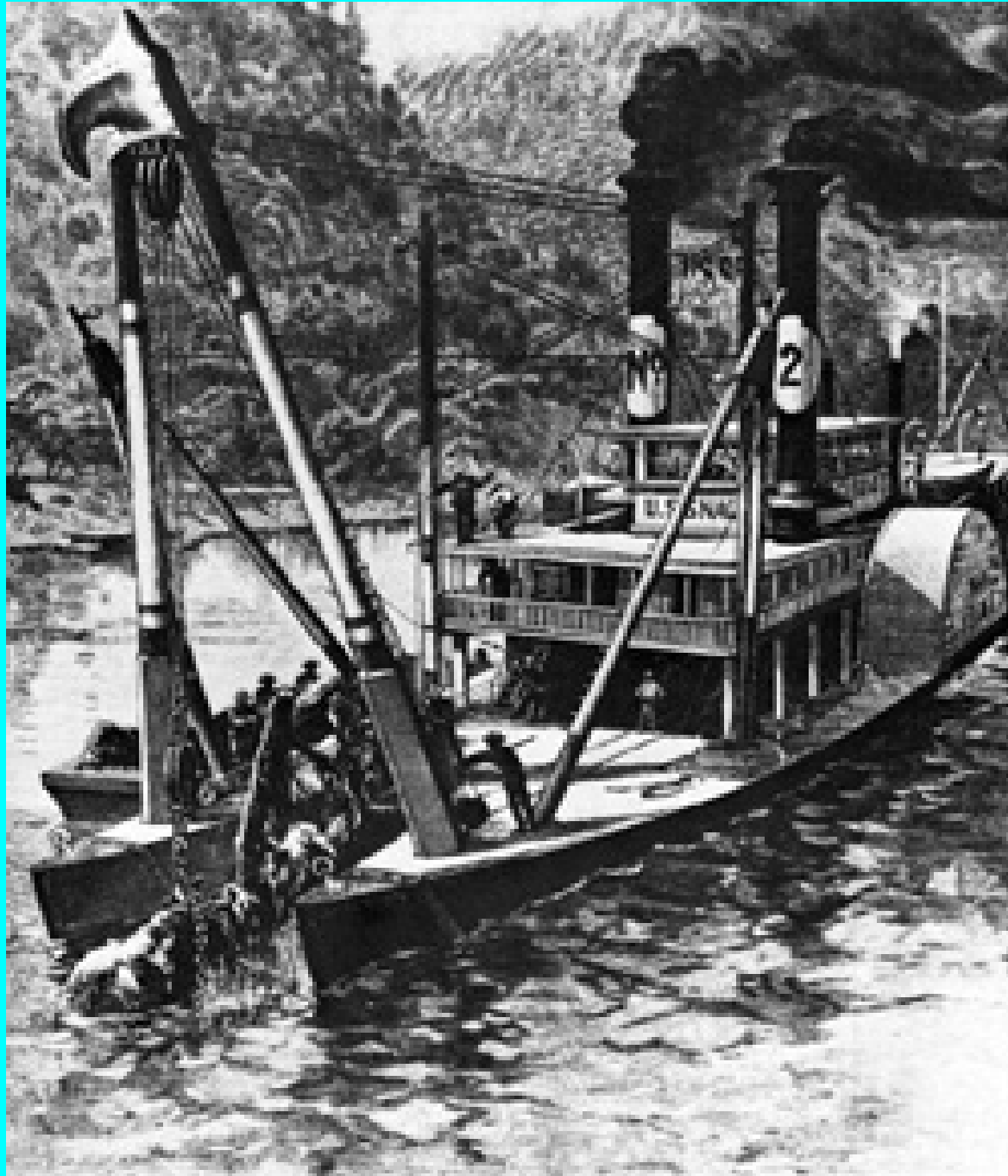




The gas boat era. Several of them are shown on the Little Kanawha River above slackwater, Big Root Shoals, eight miles below Grantsville, West Virginia.

Courtesy of The Waterways Journal

Snags

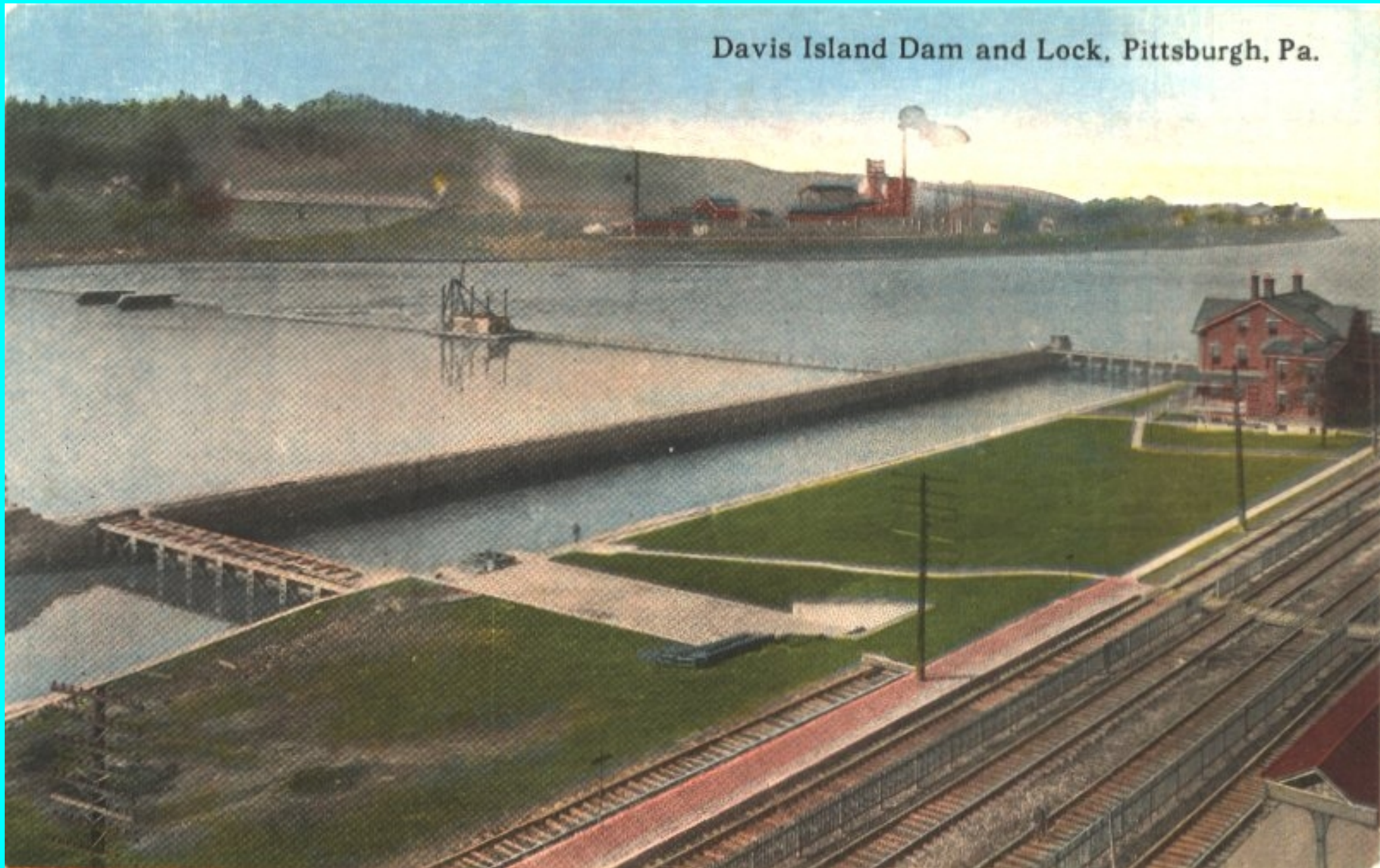


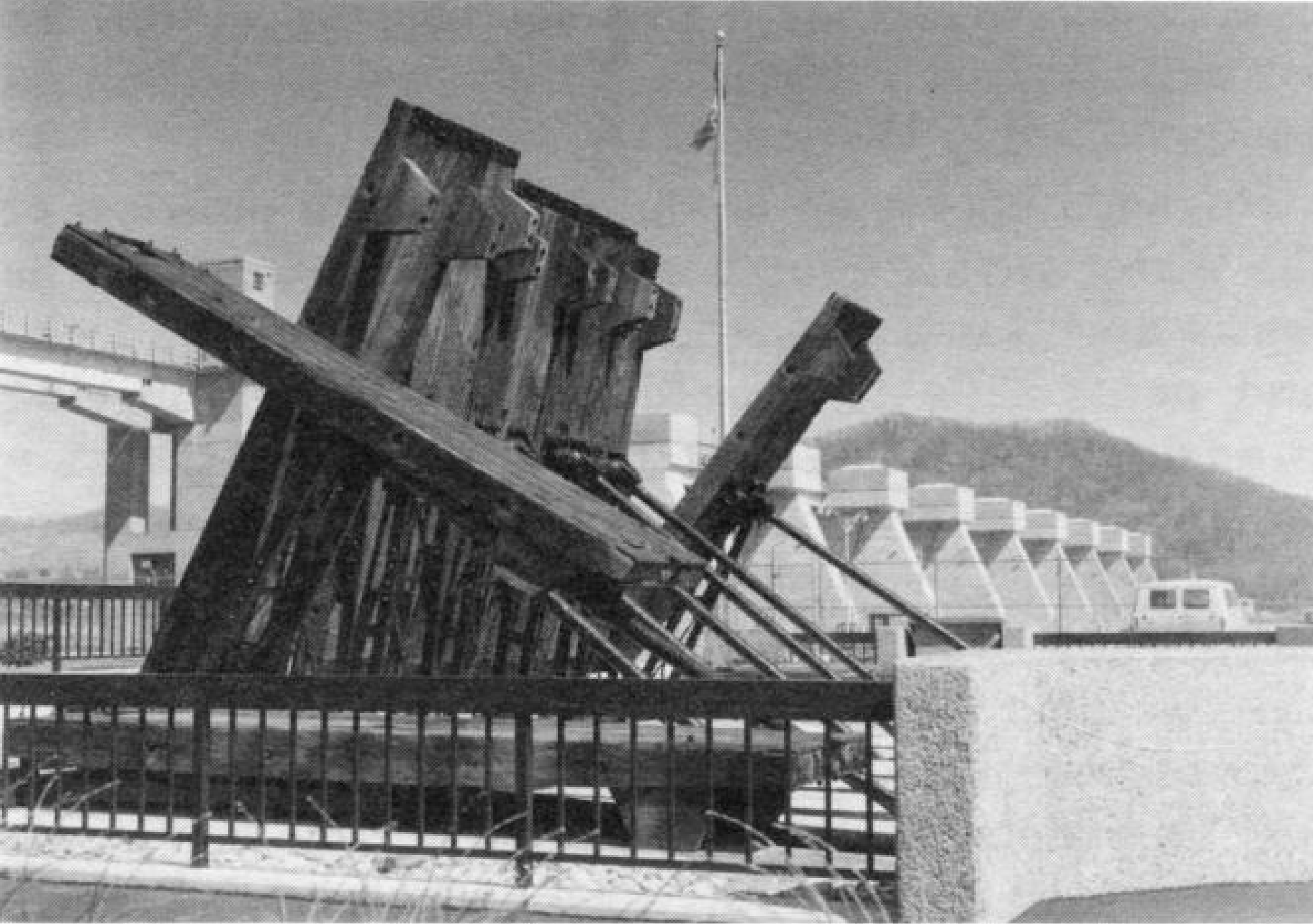
Low Water - Ohio River



OHIO-RIVER-SHOWING-LOWEST-STAGE OF WATER EVER RECORDED-OCT-08

Davis Island L&D – opened 1885





wicket Hannibal Locks and Dam

Floods



FOURTH AVE., & WATER ST., FLOOD DIST., MARCH 14TH 1907, MC KEESPORT, PA.
3213

Relieved by the N.Y. Tribune June 2, 1907

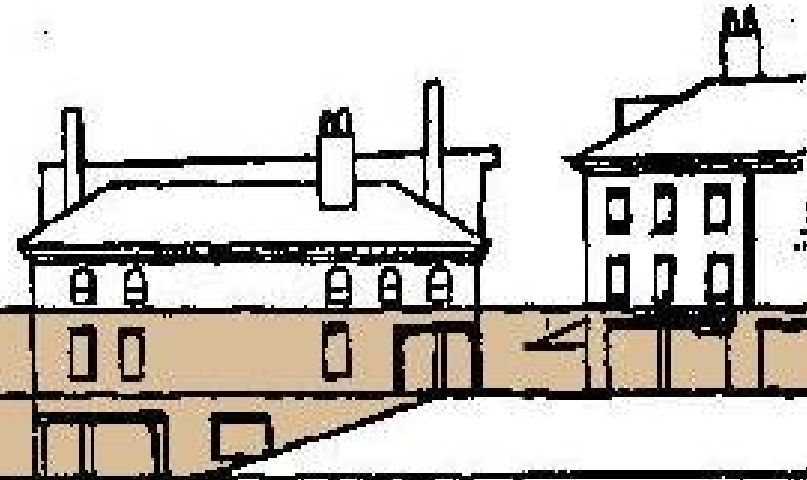
Cincinnati

1884 Flood

Front Street

Normal Level

Low Water





*BOATING AT THE ENTRANCE TO
BASE BALL PARK, ALLEGHENY.*

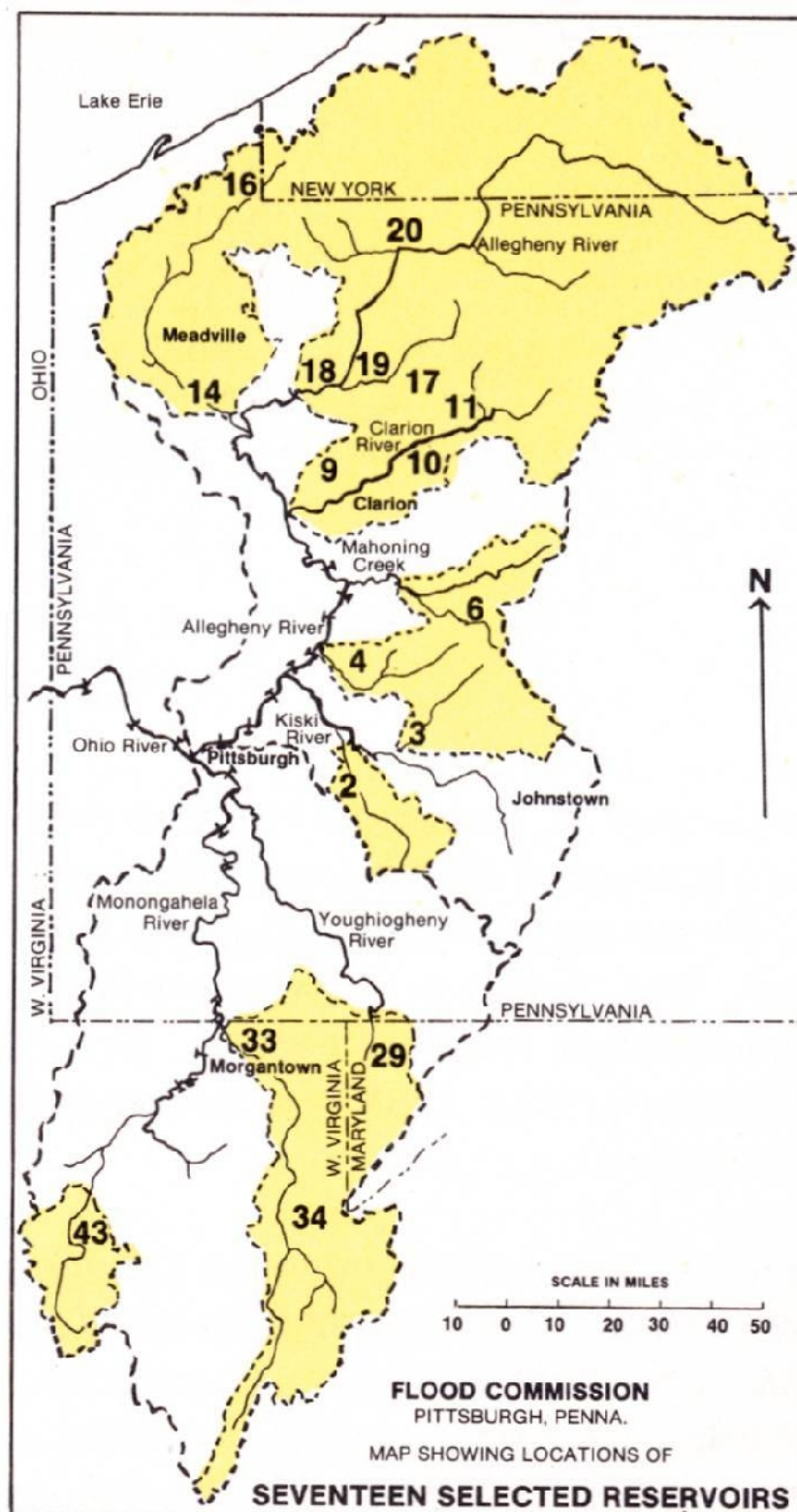
*ALONG WATER STREET, PITTSBURG.
FOUR SQUARES FROM JUNCTION OF THE
ALLEGHENY AND MONONGAHELA.*



Greatest flood ever recorded in Allegheny county. Monongahela river gauging 36.2 ft. of water, and Allegheny river 36.6 ft. Next greatest flood, the celebrated "Pumpkin Flood" of 1832, followed by the 1884 flood, which was 3.3 ft. less.

- 18 Allegheny River, Dam No. 1
- 19 Allegheny River, Dam No. 2
- 20 Allegheny River, Dam No. 3
- 2 Loyalhanna Lake Dam
- 3 Blacklick Creek Dam
- 4 Crooked Creek Dam
- 6 Mahoning Creek Dam, No. 2
- 9 Clarion River, Dam No. 1
- 10 Clarion River, Dam No. 3
- 11 Clarion River, Dam No. 4
- 14 French Creek Dam
- 16 North Branch Dam
- 17 Tionesta Lake Dam

- 29 Youghiogheny River, Dam No. 2
- 33 Cheat River, Dam No. 1
- 34 Cheat River, Dam No. 2
- 43 West Fork Dam



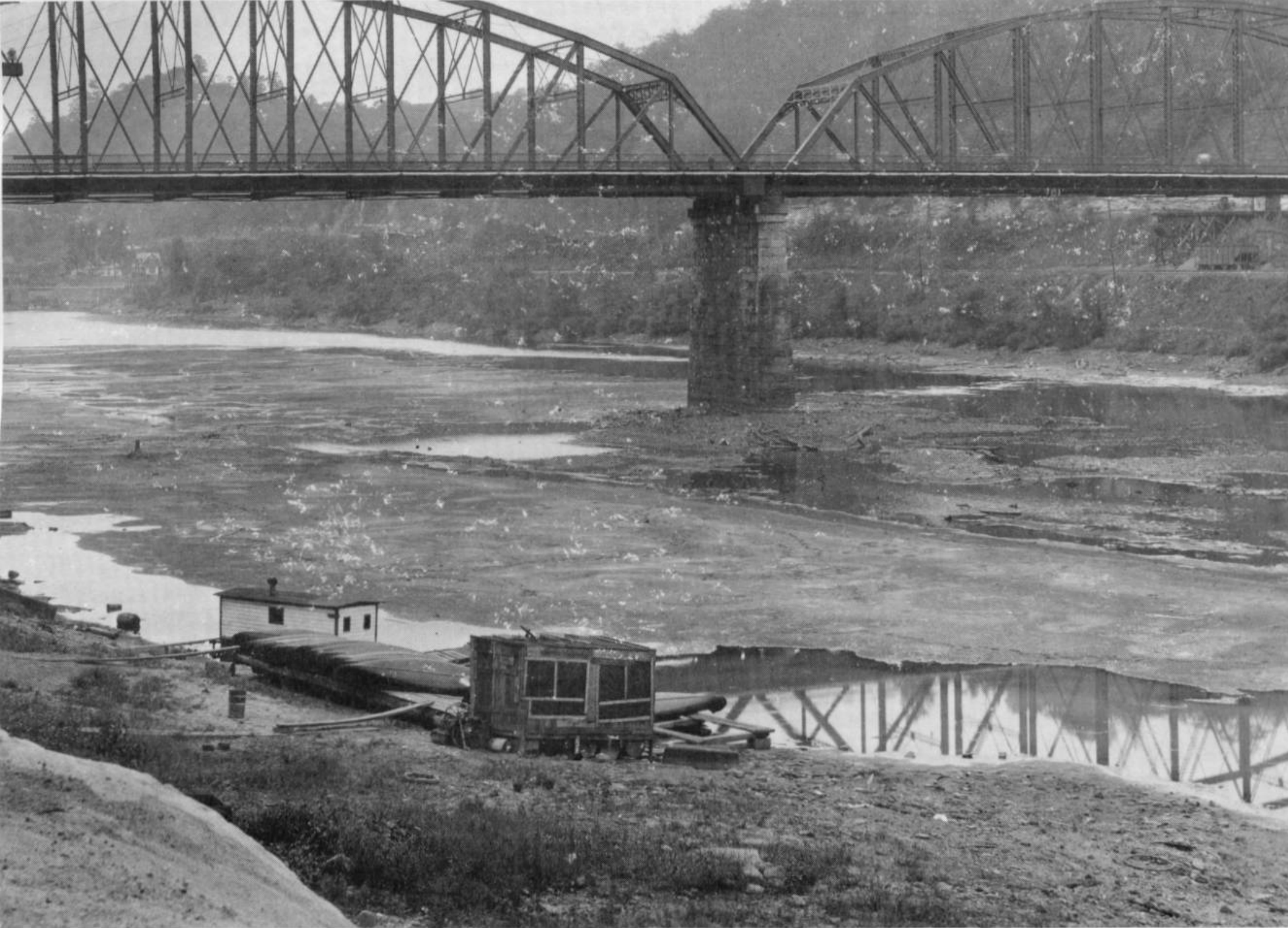
1937



- Floods - A local issue
- Navigation – A Federal responsibility

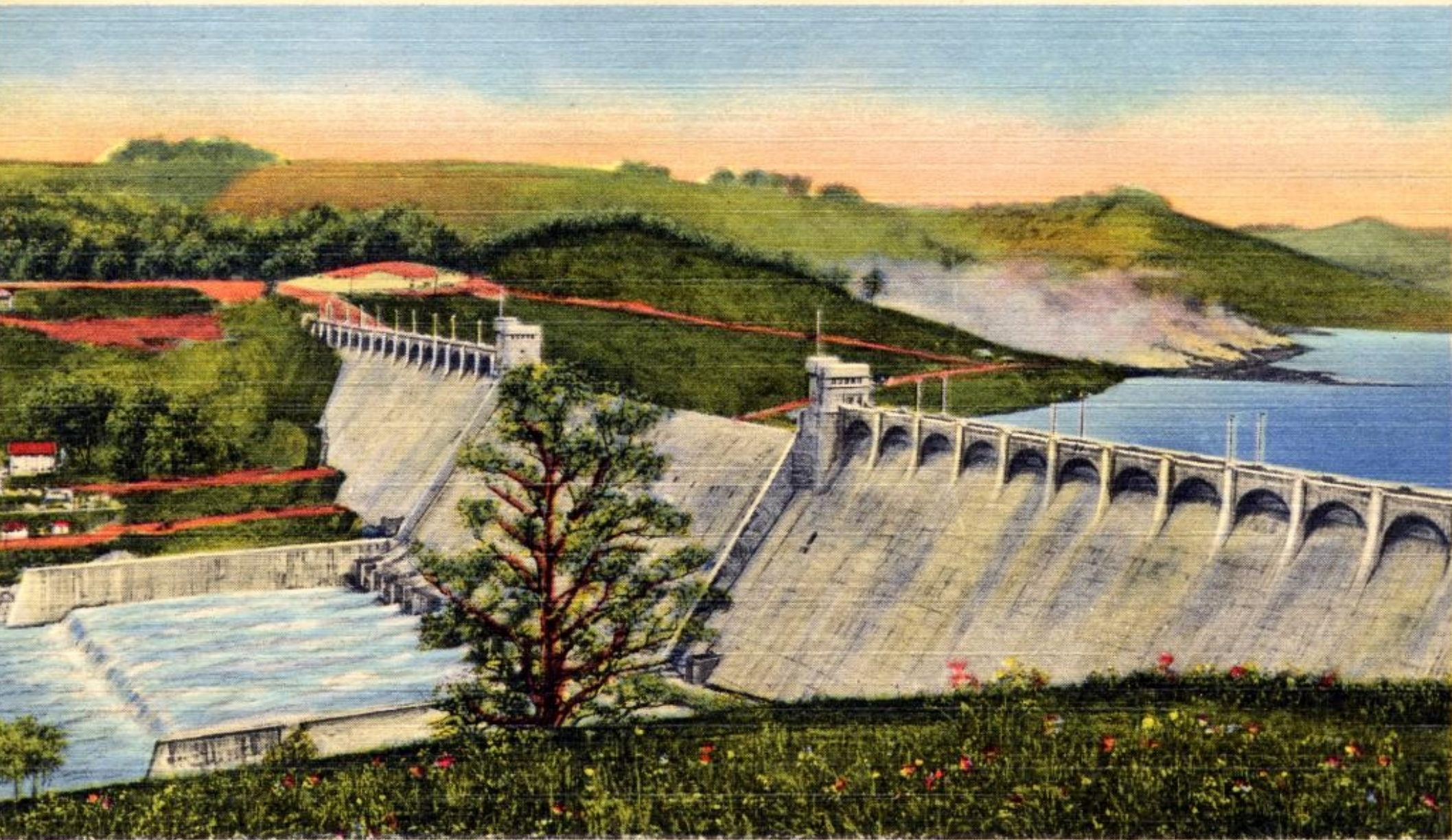


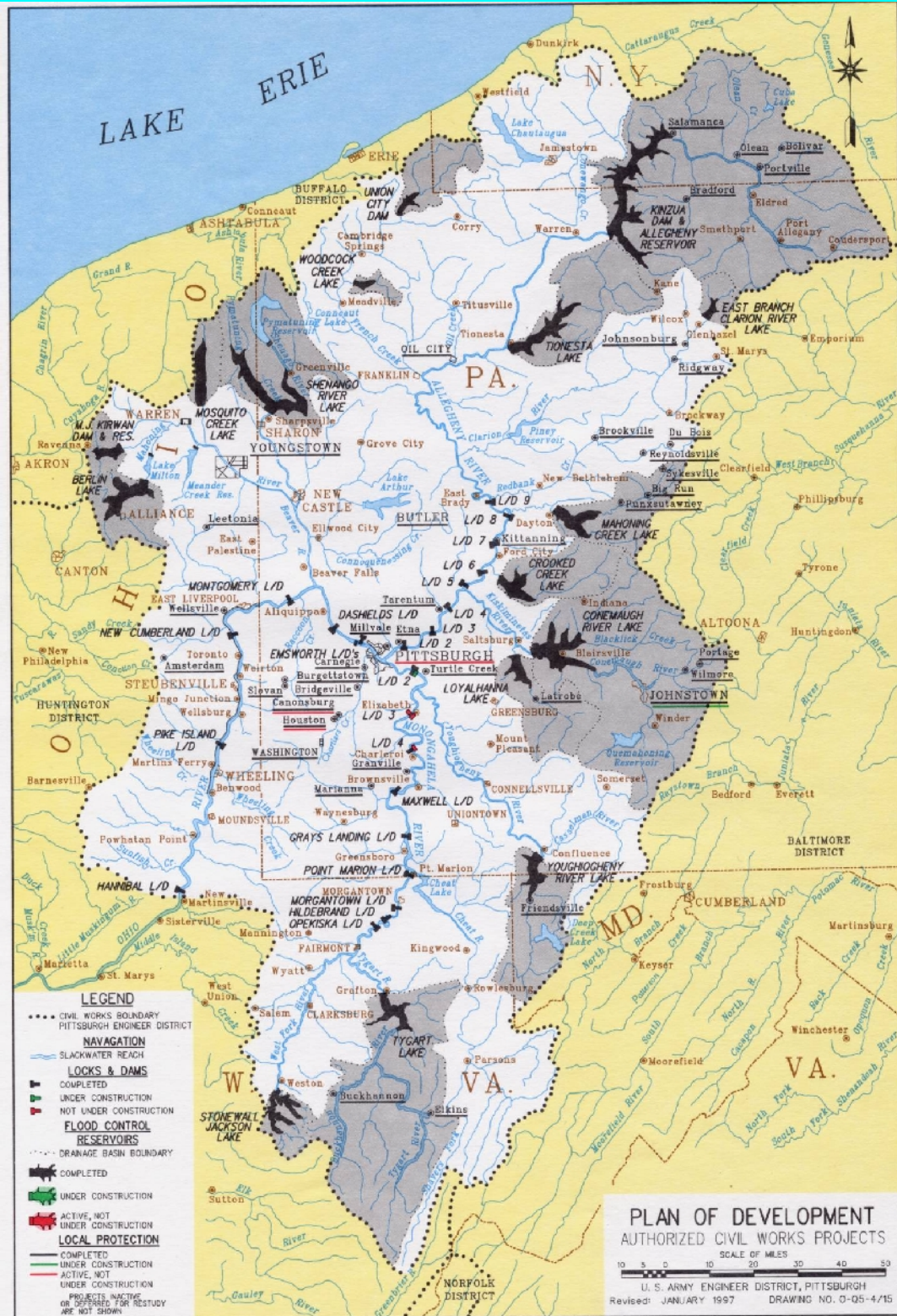
October 2, 1930, Lock & Dam 11, Monongahela River

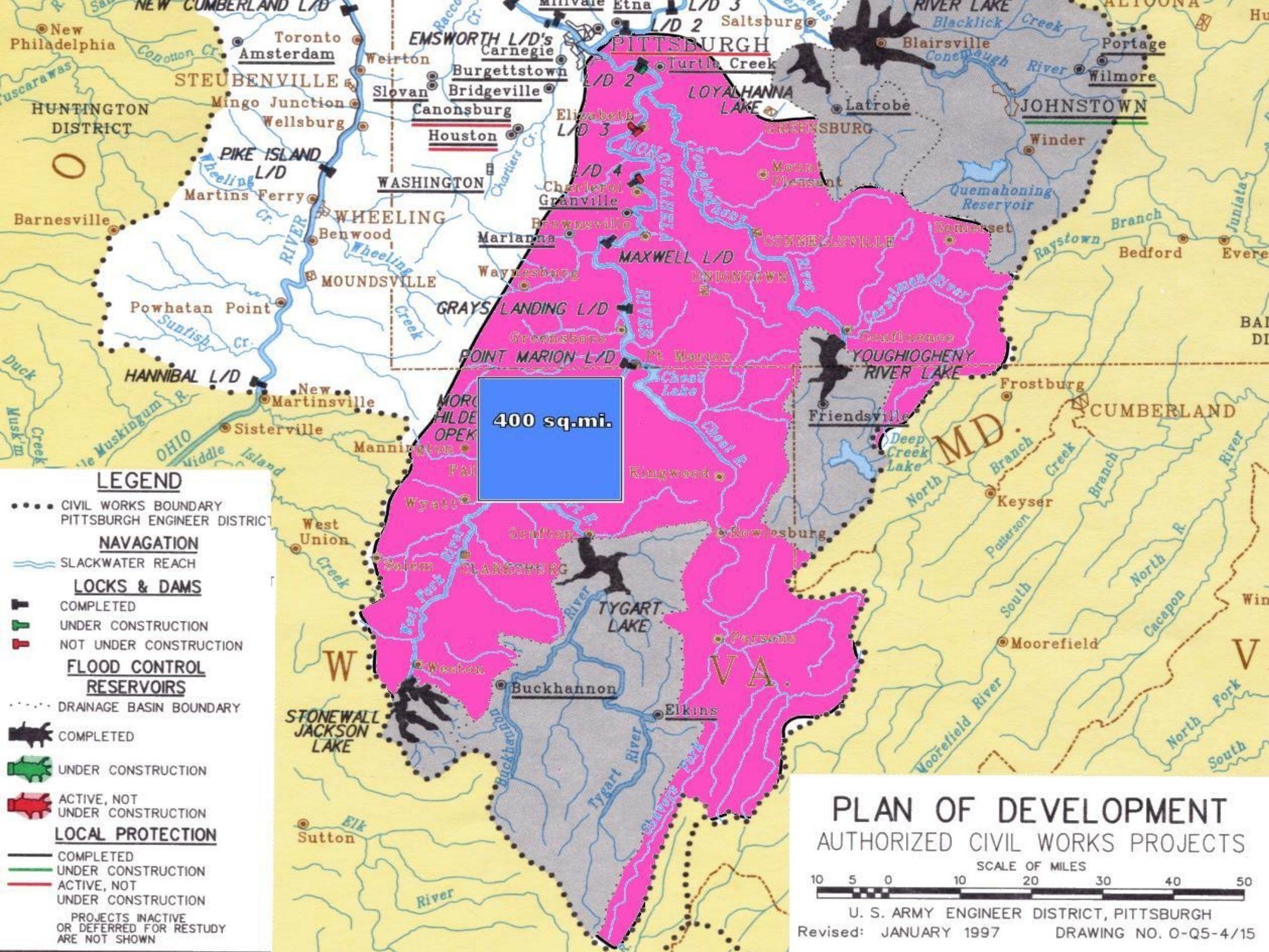


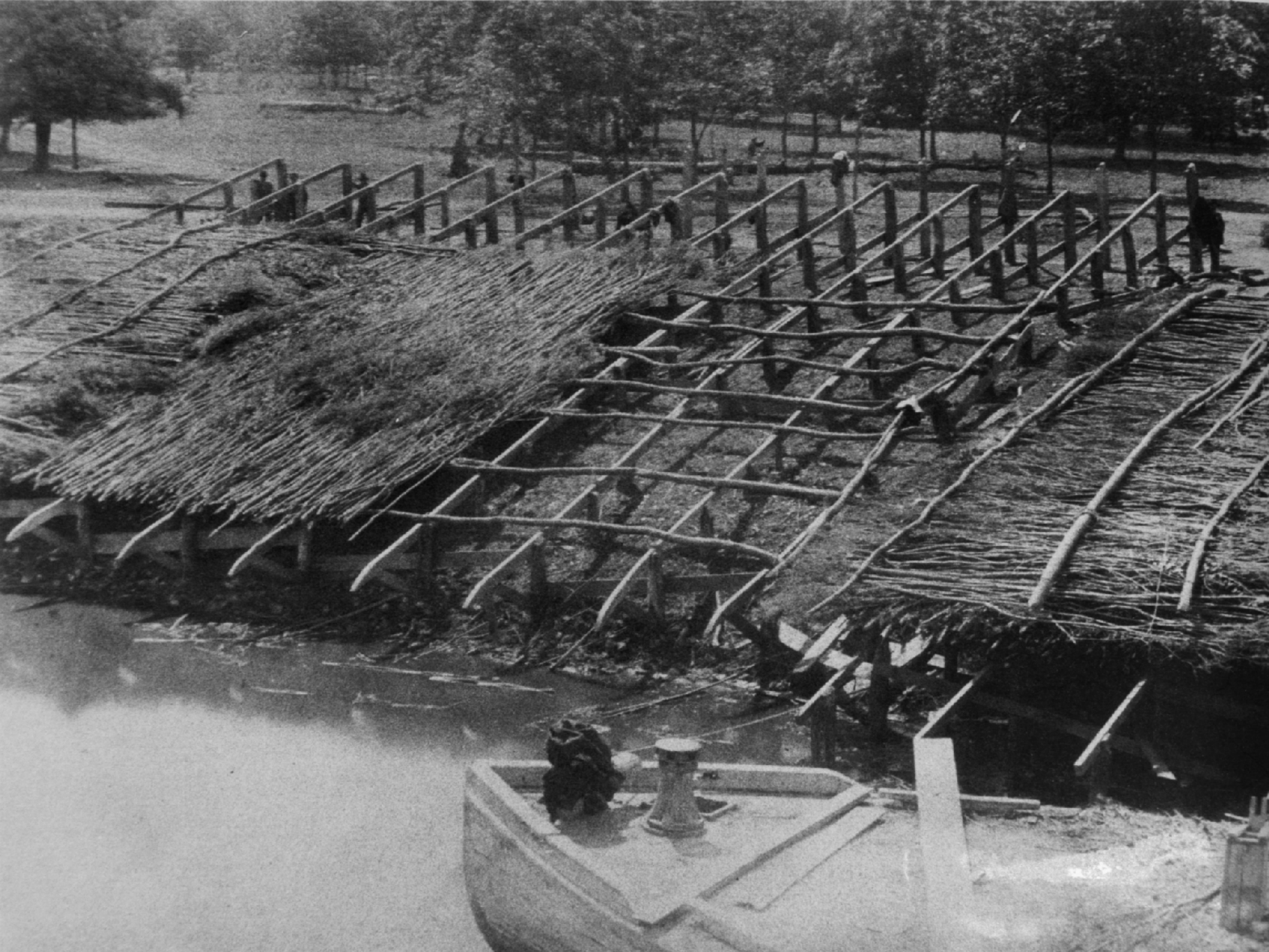
Morgantown 1930 drought Photographer: Scott Gibson

The Grafton Flood Dam, Grafton, West Virginia











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