56TH CONGRESS, 2d Session. } HOUSE OF REPRESENTATIVES. { DOCUMENT No. 263.

EXAMINATION AND SURVEY OF HENDERSONS POINT, PORTSMOUTH HARBOR, NEW HAMPSHIRE.

LETTER

FROM

THE SECRETARY OF WAR,

TRANSMITTING,

WITH A LETTER FROM THE CHIEF OF ENGINEERS, REPORTS OF EXAMINATION AND SURVEY OF HENDERSONS POINT, PORTSMOUTH HARBOR, NEW HAMPSHIRE.

JANUARY 3, 1901.—Referred to the Committee on Rivers and Harbors and ordered to be printed.

WAR DEPARTMENT,
Washington, December 29, 1900.

SIR: I have the honor to transmit herewith a letter from the Chief of Engineers, United States Army, dated December 28, 1900, together with copies of reports of Maj. W. L. Fisk and Capt. Harry Taylor, Corps of Engineers, dated, respectively August 27 and December 21, 1900, the former upon preliminary examination and the latter upon survey of Hendersons Point, Portsmouth Harbor, New Hampshire, made in compliance with the emergency river and harbor act approved June 6, 1900.

Very respectfully,

ELIHU ROOT,
Secretary of War.

THE SPEAKER OF THE HOUSE OF REPRESENTATIVES.

OFFICE OF THE CHIEF OF ENGINEERS,
UNITED STATES ARMY,
Washington, December 28, 1900.

SIR: I have the honor to submit the accompanying copies of reports, dated August 27 and December 21, 1900 (with map and a sheet of cross sections), the former by Maj. W. L. Fisk, Corps of Engineers, upon preliminary examination, and the latter by Capt. Harry Taylor, Corps of Engineers, upon survey, required by the provisions of the emergency river and harbor act of June 6, 1900, of Hendersons Point,

Portsmouth Harbor, New Hampshire, with a view of removing a portion of said point for the purpose of improving navigation to the navy-yard.

From these reports and the accompanying papers it appears that the proposed improvement is not needed in the interests of commerce, but is considered very essential in order to permit the larger ships of the Navy to pass freely to the new dry dock, located at the Portsmouth Navy-Yard.

The cost of the necessary work is estimated by Captain Taylor at $800,000 if funds are made available for carrying on the work continuously. For the reasons given, this estimate is increased to $1,180,000 if the work be not prosecuted under a single contract.

Very respectfully, your obedient servant,

JOHN M. WILSON,
Brig. Gen., Chief of Engineers,
U. S. Army.

Hon. ELIHU ROOT,
Secretary of War.

PRELIMINARY EXAMINATION OF HENDERSONS POINT, PORTSMOUTH HARBOR, NEW HAMPSHIRE, WITH A VIEW TO REMOVING A PORTION OF SAID POINT FOR THE PURPOSE OF IMPROVING NAVIGATION TO THE NAVY-YARD.

UNITED STATES ENGINEER OFFICE,
Portsmouth, N. H., August 27, 1900.

GENERAL: In compliance with instructions contained in your letter of June 13, 1900, I have the honor to submit the following report of preliminary examination of Hendersons Point, Maine, Portsmouth Harbor, New Hampshire, with a view of removing a portion of said point for the purpose of improving navigation to the navy-yard.

The channel makes at this place an abrupt turn of sixty degrees, and Hendersons Point narrows the available width to about one-half what it is immediately above and below, makes the tidal currents excessive, and renders it extremely difficult to handle vessels of the size to be accommodated by the new dry dock at the navy-yard, the entrance to which is less than 700 yards above the point.

The removal of all or a portion of the point would greatly facilitate access to the dry dock. In order to make an estimate of the cost a survey in great detail will be necessary, and while covering but a small area, it will cost about $750, as the tidal currents are so strong it will only be possible to work at and near slack water. There being no available balance from former appropriations, the allotment of this amount from the act of June 6, 1900, is requested.

Very respectfully, your obedient servant,

W. L. FISK,
Major, Corps of Engineers.

Brig. Gen. JOHN M. WILSON,
Chief of Engineers, U. S. A.
(Through the Division Engineer.)

[Third indorsement.]

U. S. ENGINEER OFFICE,
Portsmouth, N. H., September 5, 1900.

Respectfully returned to the Chief of Engineers.

This improvement is not required by the commercial interests of this port, as vessels of the size handling the local commerce (which is almost entirely coal) have little or no difficulty coming up to the city wharves.

The only question involved is that of the requirements of the naval service, upon which I am not prepared to express any opinion beyond that given in my report, as I have had no experience in connection with the handling of large vessels of naval types.

There is ample depth of water in the channel at the lowest water for the largest vessel in the world, and at slack water, either high or low, I presume naval vessels could be handled with little trouble; but at any other times there are terrific currents and eddies which must make the handling of very heavy ships extremely difficult and, I judge, dangerous, as the channel is very narrow, with banks of solid rock on both sides.

W. L. FISK,
Major, Corps of Engineers.

[Fourth indorsement.]

NORTHEAST DIVISION ENGINEER OFFICE,
New York, September 6, 1900.

Respectfully returned to the Chief of Engineers.

By the preceding indorsement it appears that the improvment is not worthy of being made by the United States for the benefit of "the commercial interests" of the port. As regards the naval interests of the port, attention is invited to copies of a correspondence between this office and the officer commanding the Kittery Navy-Yard, June 16 and 19, 1899, relative to the necessity for widening the channel at Seavys Island by an improvement on the right bank of the river opposite Hendersons Point.

The language of the naval commander is very guarded, and it is assumed that he would have recommended the improvement in unmistakable terms had he deemed it necessary for naval purposes.

In view of the foregoing the improvement is not recommended.

G. L. GILLESPIE,
Colonel, Corps of Engineers,
Division Engineer.

[Fifth indorsement.]

OFFICE CHIEF OF ENGINEERS,
U. S. ARMY,
October 25, 1900.

Respectfully submitted to the Secretary of War.

This is a report upon preliminary examination of Hendersons Point (Maine), Portsmouth Harbor, New Hampshire (full text of item given within), required by the provisions of the emergency river and harbor act of June 6, 1900.

The local and division engineers are of opinion, expressed in third

and fourth indorsements hereon, that the proposed improvement is not required by the commercial interests of the port.

Attention is respectfully invited to the accompanying letter, dated the 22d instant, to the Secretary of War by the Secretary of the Navy, who quotes and concurs in opinion of the Chief of the Bureau of Yards and Docks, Navy Department, that it is—

very necessary that navigation at the point named should be improved on account of its value to the naval service. If this be not done the dry dock referred to will not be available for a large number of the most important vessels of the naval service, and the usefulness of the yard will be largely impaired.

In view of this opinion of the Secretary of the Navy, I recommend that the local officer be directed to make a survey, estimated to cost not more than $750, and to prepare a plan and estimate of cost of improvement required.

JOHN M. WILSON,
Brig. Gen., Chief of Engineers,
U. S. Army.

[Sixth indorsement.]

WAR DEPARTMENT,
October 26, 1900.

Approved as recommended by the Chief of Engineers.
By order of the Secretary of War.

JOHN C. SCOFIELD,
Chief Clerk.

LETTER OF COL. G. L. GILLESPIE, CORPS OF ENGINEERS.

UNITED STATES ENGINEER OFFICE,
New York, N. Y., June 16, 1899.

SIR: The river and harbor act approved March 3, 1899, contains an item for a survey of "Pull-and-be-damned Point, Portsmouth Harbor," with a view to its removal, so far as the same is an obstruction to navigation.

I have the honor to request to be informed if this item was inserted at the suggestion of the Navy Department for the purpose of facilitating the navigation of the harbor in its relation to the navy-yard and of the special necessity for this improvement.

Very respectfully, your obedient servant,

G. L. GILLESPIE,
Colonel, Corps of Engineers,
Division Engineer, Northeast Division.

The COMMANDING OFFICER,
U. S. Navy-Yard, Portsmouth, N. H.

LETTER OF REAR-ADMIRAL GEORGE C. REMEY, UNITED STATES NAVY.

UNITED STATES NAVY-YARD,
Portsmouth, N. H., June 19, 1899.

SIR: In reply to your letter of the 16th instant, received at my office during an absence from this yard, I have the honor to inform you that

I have no knowledge whatever as to who suggested the item for a survey of "Pull-and-be-damned Point, Portsmouth Harbor," river and harbor act approved March 3, 1899.

2. The removal of a portion of "Pull-and-be-damned Point" has long been a topic of public discussion in the local press.

Very respectfully,

GEO. C. REMEY,
Rear-Admiral, United States Navy,
Commandant Navy-Yard and Station.

Col. G. L. GILLESPIE,
Corps of Engineers, Division Engineer Northeast Division,
Army Building, New York, N. Y.

LETTER OF THE CHIEF OF ENGINEERS.

OFFICE OF THE CHIEF OF ENGINEERS,
UNITED STATES ARMY,
Washington, September 10, 1900.

SIR: The emergency river and harbor act approved June 6, 1900, makes provision for a preliminary examination of Hendersons Point, Portsmouth Harbor, New Hampshire, with a view of removing a portion of said point for the purpose of improving navigation to the navy-yard. The act also calls for a survey, with plan and estimate of improvement proposed, provided the locality is deemed to be worthy of improvement by the United States.

I am just in receipt of the report of the preliminary examination at Hendersons Point, and the local officer, Maj. W. L. Fisk, Corps of Engineers, states as follows:

This improvement is not required by the commercial interests of this port, as vessels of the size handling the local commerce (which is almost entirely coal) have little or no difficulty coming up to the city wharves.

The only question involved is that of the requirements of the naval service. * * *

There is ample depth of water in the channel at the lowest water for the largest vessel in the world, and at slack water, either high or low, I presume naval vessels could be handled with little trouble; but at any other times there are terrific currents and eddies which must make the handling of very heavy ships extremely difficult and, I judge, dangerous, as the channel is very narrow, with banks of solid rock on both sides.

The division engineer, Col. G. L. Gillespie, Corps of Engineers, in forwarding Major Fisk's report, states that—

By the preceding indorsement it appears that the improvement is not worthy of being made by the United States for the benefit of "the commercial interests" of the port. As regards the naval interests of the port, attention is invited to copies of a correspondence between this office and the officer commanding the Kittery Navy-Yard, June 16 and 19, 1899, relative to the necessity for widening the channel at Seavys Island by an improvement on the right bank of the river, opposite Hendersons Point. The language of the naval commander is very guarded, and it is assumed that he would have recommended the improvement in unmistakable terms had he deemed it necessary for naval purposes.

In view of the foregoing the improvement is not recommended.

In order that a correct conclusion may be reached as to the propriety and necessity for a survey under the terms of the act, I recommend that the Secretary of the Navy be requested to state whether in his judgment the requirements of the naval service demand that a portion

of Hendersons Point, Portsmouth Harbor, shall be removed for the purpose of improving navigation to the navy-yard at Portsmouth, N. H.

Very respectfully, your obedient servant,

JOHN M. WILSON,
Brig. Gen., Chief of Engineers,
U. S. Army.

Hon. ELIHU ROOT,
Secretary of War.

WAR DEPARTMENT,
September 14, 1900.

Respectfully referred to the honorable the Secretary of the Navy, with request that the information desired by the Chief of Engineers be furnished, if practicable.

G. D. MEIKLEJOHN,
Acting Secretary of War.

LETTER OF THE SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
Washington, October 22, 1900.

SIR: Referring to your indorsement of the 14th ultimo on the letter of Brig. Gen. John M. Wilson, Chief of Engineers, U. S. A., requesting the views of this Department as to whether the requirements of the naval service demand that a portion of Hendersons Point, Portsmouth Harbor, shall be removed for the purpose of improving navigation in the navy-yard at Portsmouth, N. H., I have the honor to inform you that the Chief of the Bureau of Yards and Docks, to whom the letter of the Chief of Engineers was referred, has submitted the following report, in which the Department concurs:

The Bureau has given careful consideration to the subject of the removal of a portion of Hendersons Point, Portsmouth Harbor, and has received a copy of the correspondence referred to by Colonel Gillespie. In this correspondence the commandant of the station made no recommendation in the matter, but the Bureau does not regard that as conclusive that he did not consider such an improvement desirable or even necessary.

The navigation of this portion of the channel, which is between the Portsmouth Navy-Yard and the lower harbor, is well known to be difficult, if not dangerous, for the large battle ships of the Navy. The current at this point is exceedingly swift, except immediately at the turn of tide. As a matter of fact, none of the battle ships have passed up to the Portsmouth Navy-Yard, the commanders of these vessels preferring to undergo the inconvenience of retaining the ships in the lower harbor and receiving coal and other supplies by lighters, rather than incur the risks of passing through the channel at Hendersons Point.

The Government has under construction at this navy-yard one of the largest dry docks recently authorized by Congress, which was required to be not less than 700 feet in length and evidently intended to fit this yard for handling in dock the largest vessels in the service.

The Bureau considers it very necessary that navigation at the point named should be improved on account of its value to the naval service. If this be not done the dry dock referred to will not be available for a large number of the most important vessels of the naval service and the usefulness of the yard will be largely impaired.

Very respectfully,

J. D. LONG,
Secretary.

The HONORABLE THE SECRETARY OF WAR.

SURVEY OF HENDERSONS POINT, PORTSMOUTH HARBOR, NEW HAMPSHIRE, WITH A VIEW TO REMOVING A PORTION OF SAID POINT FOR THE PURPOSE OF IMPROVING NAVIGATION TO THE NAVY-YARD.

UNITED STATES ENGINEER OFFICE,
Portsmouth, N. H., December 21, 1900.

GENERAL: In compliance with instructions contained in your letter of October 30, 1900, I have the honor to submit the following report of a survey of Hendersons Point (Maine), Portsmouth Harbor, New Hampshire, "with a view of removing a portion of said point for the purpose of improving navigation to the navy-yard."

Under date of August 27, 1900, Maj. W. L. Fisk, Corps of Engineers, submitted a report of a preliminary examination of this point. In this report it was stated that—

The channel makes at this place an abrupt turn of 60 degrees, and Hendersons Point narrows the available width to about one-half what it is immediately above and below, makes the tidal currents excessive, and renders it extremely difficult to handle vessels of the size to be accommodated by the new dry dock at the navy-yard, the entrance to which is less than 700 yards above the point. The removal of all or a portion of the point would greatly facilitate access to the dry dock.

And in third indorsement on the same report, dated September 5, 1900, Major Fisk further stated that—

This improvement is not required by the commercial interests of this port, as vessels of the size handling the local commerce (which is almost entirely coal) have little or no difficulty coming up to the city wharves.

The only question involved is that of the requirements of the naval service, upon which I am not prepared to express any opinion beyond that given in my report, as I have had no experience in connection with the handling of large vessels of naval types.

There is ample depth of water in the channel at the lowest water for the largest vessel in the world, and at slack water, either high or low, I presume naval vessels could be handled with little trouble; but at any other times there are terrific currents and eddies which must make the handling of very heavy ships extremely difficult and, I judge, dangerous, as the channel is very narrow, with banks of solid rock on both sides.

The map[1] which is forwarded herewith is the result of a very careful survey, and the estimate of the quantities to be removed is believed to be very close. It is estimated that if sufficient money is available to carry on the improvement continuously the point can be removed to a depth of 30 feet below mean low water for a distance of 330 feet, measured from the high-water line, and that the work can be accomplished in about three years at an estimated cost of $800,000, but that if appropriations are not sufficient to carry on the work continuously the estimated cost will be $1,180,000. The detailed reasons for the difference in these two estimates are given in the report of Assistant Engineer W. F. Robinson, a copy of which is forwarded herewith.

It does not appear from the records of this office that there has ever been any complaint made by the commercial interests that this point is an unreasonable obstruction to navigation or that its removal is a necessity in the interests of the commerce which now seeks this port, and in my opinion the benefit to commerce which would result from its removal is not sufficient to justify the cost. I am not prepared to give an opinion as to the benefit to the Navy.

A letter from the collector of customs, dated March 13, 1900, forwarding commercial statistics for the calendar year ending December

[1] Only a portion printed herewith.

31, 1899, together with its inclosure, is also forwarded herewith. It will be observed that over 93 per cent of the tonnage of imports is coal, and that the balance consists of materials which are of comparatively small value.

Very respectfully, your obedient servant.

HARRY TAYLOR,
Captain, Corps of Engineers.

Brig. Gen. JOHN M. WILSON,
Chief of Engineers, U. S. A.
(Through the Division Engineer.)

[First indorsement.]

NORTHEAST DIVISION ENGINEER OFFICE,
New York, December 24, 1900.

Respectfully forwarded to the Chief of Engineers, concurring in the views of the district officer.

The proposed improvement is not required by the commercial interests of the port, but in view of the opinion expressed by the Secretary of the Navy that the improvement is very necessary in relation to the use by naval ships of the dry dock located at the Kittery Navy-Yard, I have the honor to recommend the locality as worthy of improvement by the United States at the estimated cost of $800,000.

G. L. GILLESPIE,
Colonel, Corps of Engineers,
Division Engineer.

REPORT OF MR. W. F. ROBINSON, ASSISTANT ENGINEER.

UNITED STATES ENGINEER OFFICE,
Portsmouth, N. H., December 21, 1900.

CAPTAIN: I have the honor to submit herewith map (in two sheets) of the recent survey of Hendersons Point, Maine, Portsmouth Harbor, New Hampshire, together with an estimate of the cost of the removal of same.

The whole point is solid ledge covered with a thin covering of earth. For the purpose of this estimate it has been considered all ledge. The point has been divided into four sections on the drawing with the quantities in cubic yards in each section. Sections I, II, and III, the removal of which would increase the width of the channel about 50 per cent at this point, contain 195,814 cubic yards, and the following estimate is based on the assumption that a single contract for the removal of the three sections will be made.

The time required to complete the work from time of commencement will probably be three years, and one-third of the total cost of the work could be used each year.

The estimated price for removing the ledge and wasting it in the coves on either side of the point is placed at $3.88+ per cubic yard. This estimate is based on the plan of using a cofferdam, which is believed to be the most economical way of doing the work, and the following items enter into the estimate:

Removing 16,000 cubic yards of ledge to make a foundation for the dam, at $10 per cubic yard	$160,000
Building 1,400 feet of cofferdam and filling same with ballast	140,000
Plant, pumping, and maintenance of the dam for the time the work is in progress	50,000
Removal of cofferdam after ledge is removed	20,000
Drilling, blasting, and removing 195,814 cubic yards of ledge, at $2 per cubic yard	391,628
Engineering expenses and contingencies	38,372
Total	800,000

Under the proposal to remove small portions under any one contract the estimated cost is as follows: To remove the portion of ledge in the three sections, I, II, and III, which lies above the plane of mean low water, 49,911 cubic yards, at $2 per cubic yard, $99,822, which can be done with derricks and cars. The remaining portion below that plane would be subaqueous work, 145,903 cubic yards, at $7, =$1,021,321. It will not be practicable to use a cofferdam for the work under this proposition, so the removal would have to be done by drilling and blasting under water and the material excavated by means of dredges. As the current is very rapid at this point, $7 per cubic yard is not thought to be an excessive price.

Recapitulation.

Removing ledge which lies above the plane of mean low water, 49,911 cubic yards, at $2	$99,822
Removing ledge which lies below the plane of mean low water, 145,903 cubic yards, at $7	1,021,321
Contingencies, etc	58,857
Total	1,180,000

Respectfully submitted.

W. F. ROBINSON,
Assistant Engineer.

Capt. HARRY TAYLOR,
Corps of Engineers.

LETTER OF MR. RUFUS N. ELWELL, COLLECTOR OF CUSTOMS AT PORTSMOUTH, N. H.

OFFICE OF THE COLLECTOR OF CUSTOMS,
Port of Portsmouth, N. H., March 13, 1900.

SIR: The figures in inclosed form relative to imports are approximate. As nearly all vessels entering this port with cargo arrive from American ports on the North Atlantic seaboard they are not required to produce manifests of cargoes at custom-house.

With the exception of foreign coal that is imported in British steamers of about 20 feet draft, about all the coal that arrives here is brought by sailing vessels and barges of large tonnage, from 15 to 25 feet draft.

A large number of sailing vessels of small tonnage, of 10 feet draft, bring building sand, stone, molding sand, fertilizer, cement, etc., most of which goes up country to manufacturing towns; some of these vessels load here with leather scrap, hay, cord wood, etc.

Some years there are received a great many thousand railroad ties in vessels from British provinces; last year there were very few, which makes foreign entrances and clearances smaller than usual.

There is some clay shipped from up-river banks, but the exports consist almost entirely of bricks, of which about twenty to twenty-five million are shipped annually.

Respectfully, yours,

RUFUS N. ELWELL,
Collector.

Maj. W. L. FISK,
Corps of Engineers.

Commercial statistics for Portsmouth Harbor, New Hampshire, for the calendar year ending December 31, 1899.

[Amount of revenue collected during the year, $16,070.25.]

	Number.	Tonnage.
Entrances:		
Foreign	14	8,824
Coastwise	943	313,568
Clearances:		
Foreign	25	13,950
Coastwise	900	310,000

Commercial statistics for Portsmouth Harbor, New Hampshire, for the calendar year ending December 31, 1899—Continued.

	Imported.	Exported.
	Tons.	*Tons.*
Coal	350,000	.....
Iron	1,700	.....
Stone	10,000	.....
Sand	3,000	.....
Lumber	6,000	.....
Salt	800	.....
Lime, cement, and plaster	1,600	.....
Fertilizer	2,000	.....
Clay	700	6,000
Bricks	.....	58,000
Merchandise	.....	500

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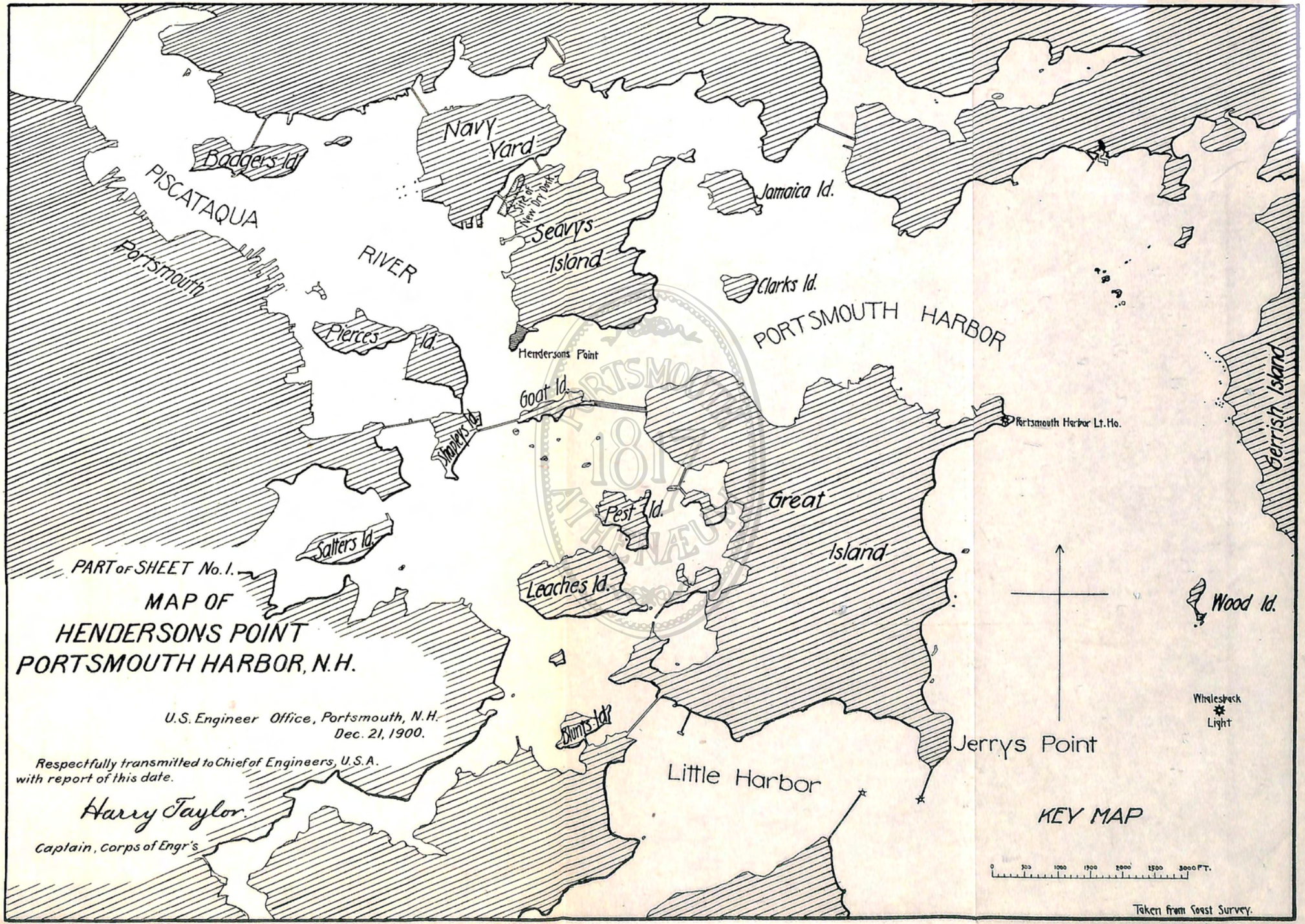

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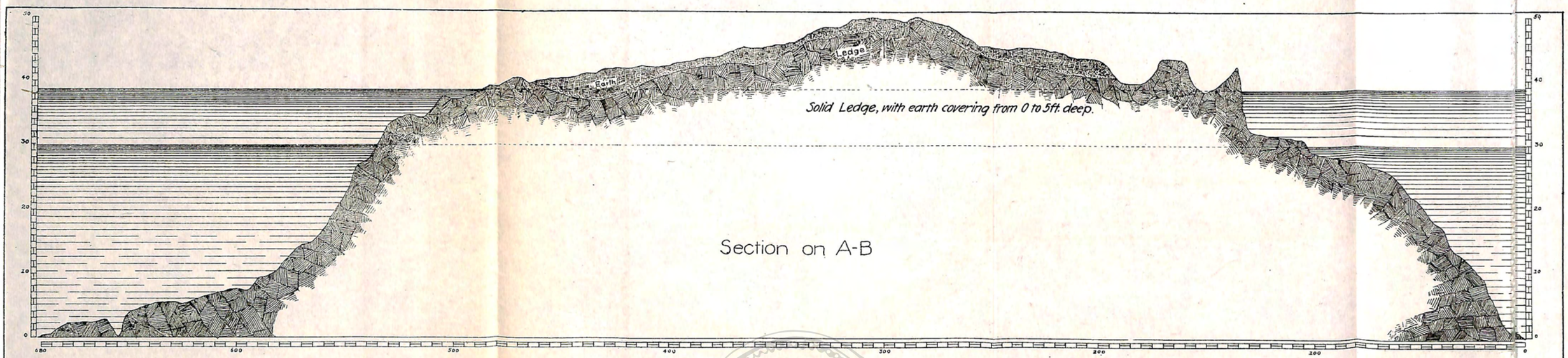
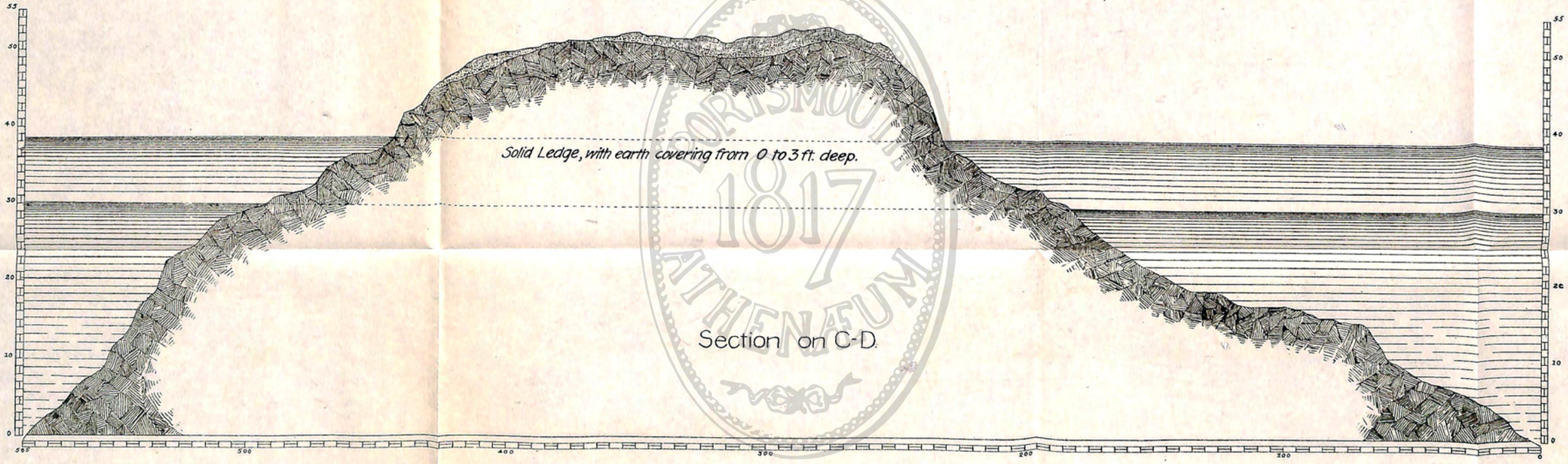
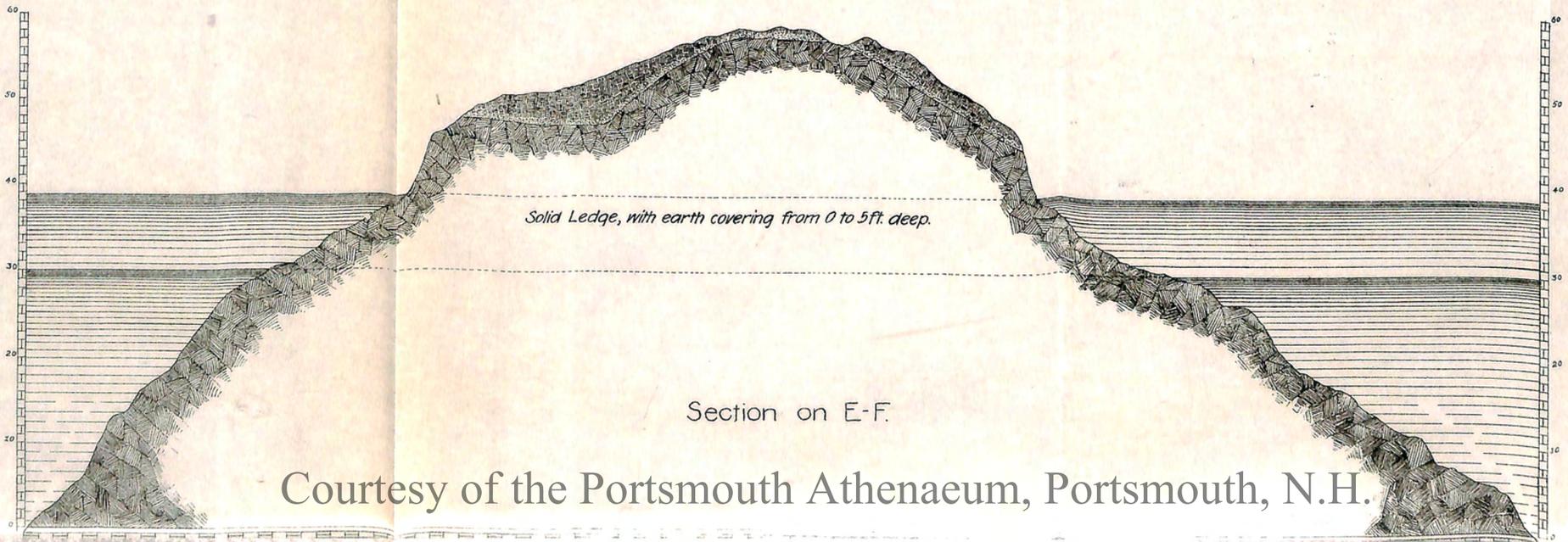


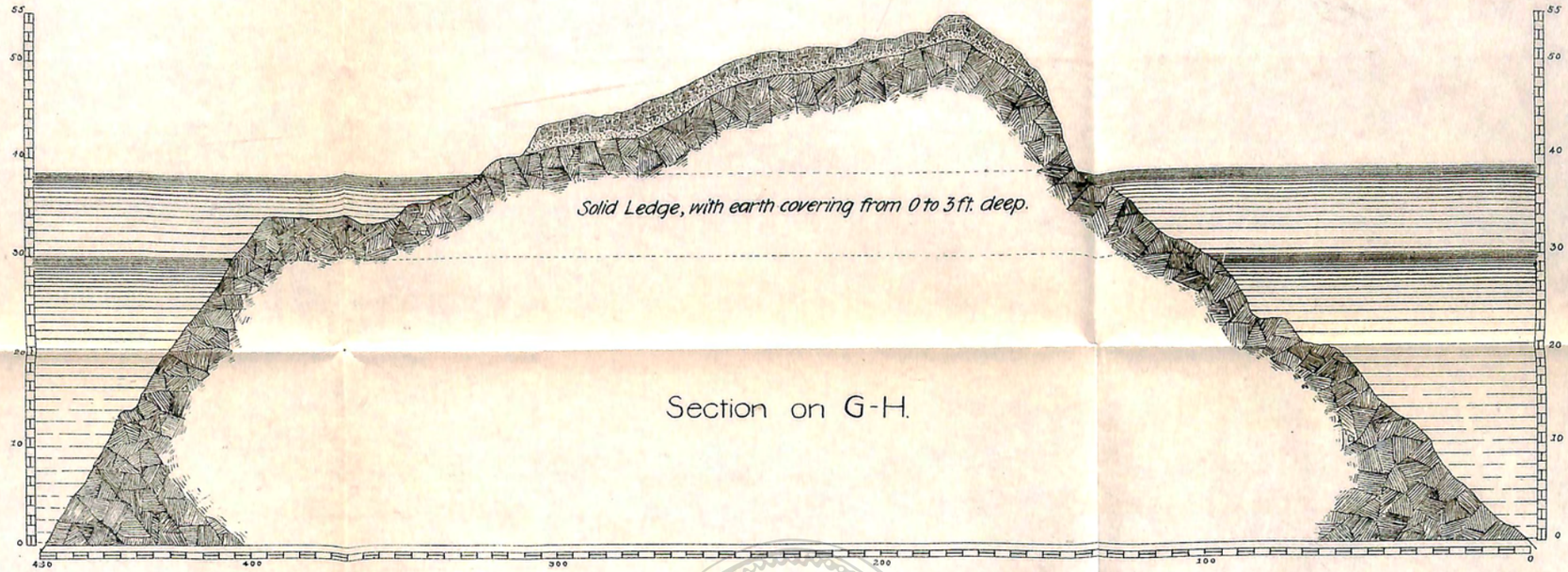
Section on A-B



Section on C-D.



Section on E-F.



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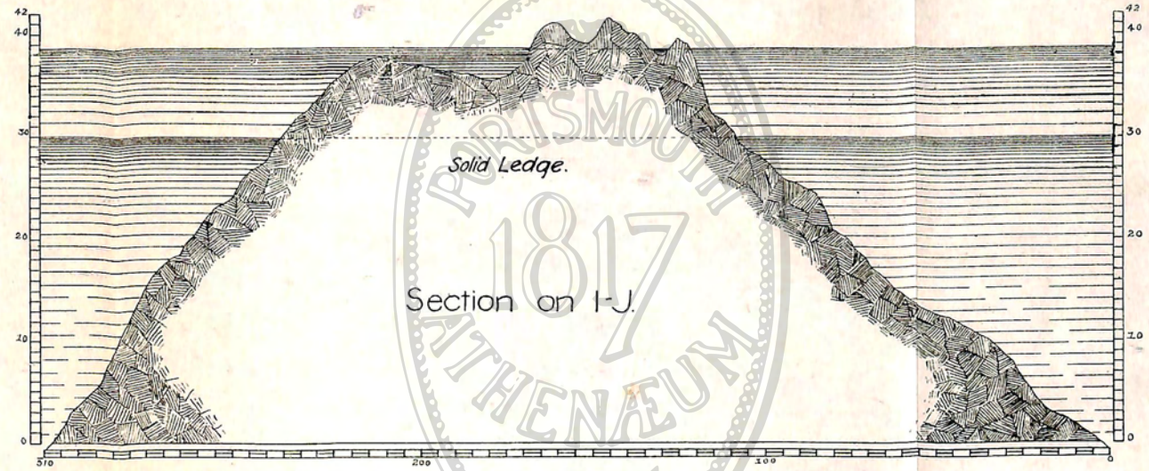

Section on I-J.

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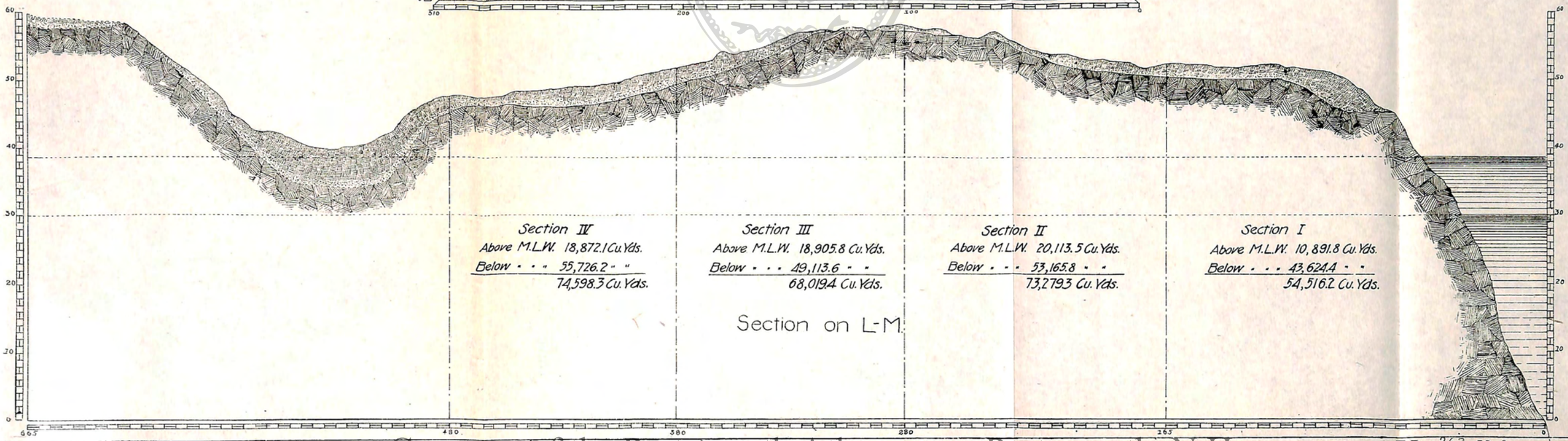
SECTIONS
Vertical Scale 1:200
Horizontal Scale 1:600



Section IV
Above M.L.W. 18,872.1 Cu. Yds.
Below " " 55,726.2 " "
74,598.3 Cu. Yds.

Section III
Above M.L.W. 18,905.8 Cu. Yds.
Below " " 49,113.6 " "
68,019.4 Cu. Yds.

Section II
Above M.L.W. 20,113.5 Cu. Yds.
Below " " 53,165.8 " "
73,279.3 Cu. Yds.

Section I
Above M.L.W. 10,891.8 Cu. Yds.
Below " " 43,624.4 " "
54,516.2 Cu. Yds.

Section on L-M.