

has been furnished by the United States collector of customs at that port, viz :

Amount of revenue collected.....	\$2,228 59
Value of exports.....	\$5,611 00
Value of imports.....	\$10,697 64
Arrival of vessels from foreign ports.....	15
Departure of vessels to foreign ports.....	20
Arrival of domestic vessels.....	304
Departure of domestic vessels.....	292
Vessels built and, documented 5; tonnage.....	1,777.75

The following-named papers are hereto appended:

1. Abstract of proposals received.
2. Abstract of contracts made.
3. Letter from Hon. E. M. Boynton, as to the commerce of the cities and towns in the valley of the Merrimac River.

Money statement.

July 1, 1878, amount available.....	\$10,180 10	
Amount appropriated by act approved March 3, 1879.....	5,000 00	15,180 10
July 1, 1879, amount expended during fiscal year.....		9,442 57
July 1, 1879, amount available.....		5,737 23
Amount (estimated) required for completion of existing project.....	24,000 00	
Amount that can be profitably expended in fiscal year ending June 30, 1881.....	24,000 00	

Abstract of proposals received August 5, 1878, for breaking up and removing North Gangway Rock in Newburyport Harbor, Mass.

No. for reference.	Bidders.	Residence.	Per cubic yard as measured in its bed.
1	Isaac A. Sylvester.....	Quincy, Mass.....	\$28 00
2	James H. Freeman & Co.....	Boston, Mass.....	30 00
3	Solon S. Andrews.....	Biddeford, Me.....	35 00
4	George L. and Hiram W. Phillips.....	Quincy, Mass.....	36 00
5	Isaac Hamilton.....	Portland, Me.....	38 00

Abstract of contracts made during the fiscal year ending June 30, 1879, for improvement of Merrimac River, including the harbor of Newburyport, Mass.

Date of cont.	Contractor.	Nature of work.	Price per cubic yard as measured in its bed.
Aug. 10, 1878	Isaac A. Sylvester, of Quincy, Mass.	Breaking up and removing North Gangway Rock, Newburyport Harbor, Mass., 300 cubic yards, more or less.	\$28 00

COMMERCIAL STATISTICS.

NEWBURYPORT, MASS., July 7, 1879.

This river (Merrimac) affords access by water to the ocean from the principal cities of New Hampshire and Massachusetts. In the counties from Concord, N. H., to the sea, a distance of 50 miles, more than half a million of people reside.

Besides the seven incorporated cities of Lowell, Lawrence, Manchester, Concord, Nashua, Haverhill, and Newburyport, there are a score of important towns and the largest mills in New England to be benefited.

The obstructions to navigation are principally near two points, the Gangway Rocks at Newburyport and between Haverhill and the head of tide-water, where there are several dangerous obstructions that have caused injuries to steamers and barges. A vast amount of property in transit up and down the valley is thus imperiled.

To show the importance and national character of this river, for which so small a sum is asked, it is only necessary to recall the fact that near it is a population exceeding that of the city of Boston, a coal consumption of at least 500,000 tons, a water-power afforded that turns more spindles than any river in the world. These 500,000 tons of anthracite coal come from Pennsylvania by sea and are transhipped by rail at a cost of more than double what it will cost by water when proper facilities are afforded. Already a private corporation, the Pentucket Navigation Company, have made extensive improvements in the river above tide-water, and are engaged in successful navigation to the cities of Lawrence and Lowell, where will be by the close of another season a large commerce if facilitated by this appropriation.

Accessibility to the sea is desired for all heavy freighting, such as cotton, corn, anthracite coal, lumber, granite, lime, cement, and every form of merchandise, to promote the material prosperity of these important cities, and reduce the cost of a commerce in which many States share. These cities send 90 per cent. of their goods beyond New England, and in return receive distant supplies.

The contribution to the nation of this large population who toil and spin, is unsurpassed, per capita, elsewhere. The productive wealth and labor and purchases of this section are of national importance, exceeding \$200,000,000. These cities should receive the most generous treatment from the national government. Since they pay a full proportion of the taxes, they should share in the benefit of the expenditure.

In the Upper Merrimac ample locks and canals have been required by Massachusetts and New Hampshire, in the charters given by these States, for every dam as far as Concord, N. H. Private capital, in a time of great commercial depression, has expended large sums in the improvement of the Merrimac River above tide-water. It therefore seems reasonable and just that this large population should receive the small appropriation requested.

It is not necessary to urge that cheapening of production relieves the operative, enables the skilled manufacturer to supply the home market and contend successfully for foreign markets, thus permitting larger purchases of supplies and increased consumption of the raw material produced in every section of the country.

These cities have been created within the present generation, and their \$200,000,000 of manufactures and of purchases are but an indication of the future triumphs of American wealth and civilization.

Among other indications of the importance of this river is that the Philadelphia and Reading Coal and Iron Company have constructed a coal pocket at Newburyport, capable of transferring all the coal for the valley from their ocean coal-steamers. Other companies stand ready to supply the coal as fast as facilities are afforded for water shipments.

Bvt. Brig. Gen. GEO. THOM.

E. M. BOYNTON.

A 12.

IMPROVEMENT OF BOSTON HARBOR, MASSACHUSETTS.

On the 1st of July, 1878, the unexpended balance of the appropriations made for the improvement of this harbor were as follows, viz :

Of the appropriation of \$50,000 made by act of August 14, 1876.....	\$20,201 44
Appropriation made by act of June 18, 1878.....	55,000 00
Total unexpended July 1, 1878.....	75,201 44
Amount expended during the fiscal year ending June 30, 1879, (including the outstanding liabilities due July 1, 1878, on account of works prosecuted under the appropriation of August 14, 1876, amounting to \$4,500.20).....	\$49,402 50
Outstanding liabilities July 1, 1879, on account of contract-work carried on under the appropriation of June 18, 1878.....	2,492 10
	51,894 60
Leaving available July 1, 1879.....	23,306 84
Amount appropriated by act of March 3, 1879.....	50,000 00
Total.....	73,306 84

During the past fiscal year the following work has been carried on, viz:

1. Under a contract made June 4, 1877, with Mr. George W. Townsend, of Boston, Mass., for breaking up and removing to a depth of 23 feet at mean low-water about 290 cubic yards of sunken ledge (of which 82 cubic yards was situated in the upper middle channel and the remainder in the main ship channel of the lower harbor, near Kelly's Rock), the contractor had, on the 1st of July, 1878, removed 50 cubic yards at the upper middle and 76.42 cubic yards near (26.42 cubic yards above and 50 below) Kelly's Rock. On the 20th of August, 1878, he completed the removal of the entire ledge at the upper middle, after which he resumed work on the sunken ledge below Kelly's Rock, and continued it until the 1st of December, 1878, when he suspended work for the winter on account of the boisterous and unfavorable weather, he having, since the 20th of August, broken up and removed to grade 107 cubic yards of that ledge. He resumed work on the 1st of May, 1879, and continued up to the 12th of June, during which period he broke up and removed to grade the remaining portion (24½ cubic yards) of this ledge, in full and satisfactory completion of his contract of June 4, 1877.

2. On the 19th of August, 1878, operations were resumed at Nash's Rock Shoal, in the lower harbor, for removing the remaining sunken bowlders and ledges scattered over this extended shoal, and they were completed on the 31st of August, during which period about 45 tons of the bowlders and ledge were removed, in completion of all the work projected for the improvement of this shoal. This work was done by a submarine party with a vessel and crew hired by the day. By the operations carried on in the years 1876, 1877, and 1878 the depth of water on this shoal has been increased about 7 feet, so as to give not less than 20½ feet at mean low-water on its shoalest part.

3. The reconstruction of the sea-wall at the southeast bluff of Lovell's Island (built in 1868 and 1869) was commenced about the middle of June, 1878, and continued until the 9th of December, 1878, when work was suspended for the winter. It was resumed on the 14th of April and completed on the 21st of June, 1879. All the stone required for this sea-wall was furnished by contracts (as reported in the last annual report), and all the work done with hired labor. This work is now completed, and it is believed that with its increased thickness and height, in addition to the rubble-stone apron built for the protection of its foundation, and the granite paving in its rear, it will now be able to resist the violent storms to which it is exposed, and fully answer the purpose for which it is intended, to wit, the protection and preservation of this part of the island. This work has, in part, been done under the appropriation of June 18, 1878.

4. Under the appropriation of \$55,000, made by the act of June 18, 1878, a contract was made, on the 15th of August, 1878, with Mr. Joseph E. Bartlett, the lowest of eight bidders, for the removal of Man-of-War Shoal (situated in the upper harbor at the confluence of Charles and Mystic rivers) to a depth of 23 feet at mean low-water, by 65,000 cubic yards, more or less, of dredging at 27 cents per cubic yard, as measured in the scows.

Dredging operations were commenced by the contractor at the Man-of-War Shoal on the 26th of August, 1878, and continued day and night up to the 15th of December, when they were suspended for the winter. They were resumed on the 24th of April and continued up to the end of this fiscal year. During the year the contractor has done about 46,000

cubic yards of dredging, under his contract, which is now about two-thirds completed, with a probability that it will be entirely completed before the first of October next.

5. Under the appropriation of June 18, 1878, a contract was also made on the 26th of August, 1878, with Mr. Isaac A. Sylvester, of Quincy, Mass., the lowest of three bidders, for breaking up and removing to a depth of 23 feet at mean low-water a sunken ledge situated near Kelly's Rock, containing 145 cubic yards, more or less, at \$43 per cubic yard measured *in situ*.

Mr. Sylvester has made arrangements for commencing work at once with the same submarine party, vessel, and machinery that he used so satisfactorily on the work recently completed by him in Newburyport Harbor.

Some repairs, where found necessary, have also been made during the past year on the several sea-walls, built on the north head of Lovell's Island, Gallop's Island, the north head of Long Island, the north head of Deer Island, and Rainsford Island.

The works that have been completed up to this date for the improvement and preservation of this harbor consist of the following, to wit:

I. The main ship channel has been straightened, widened, and deepened, so as to have a width of not less than 600 feet and a depth of 23 feet at mean low-water at the following places, viz:

1. At the west end of Great Brewster Spit.
2. At the southeast and southwest points of Lovell's Island.
3. At the Upper Middle Bar; whereby this channel from the entrance of the lower harbor up to Anchorage Shoal has a width of not less than 600 feet and a depth of 23 feet at mean low-water (or about 32½ feet at ordinary high-water), except at the Lower Middle where it requires widening, and near Kelly's Rock where obstructed by a sunken ledge recently discovered to be 3½ feet shoal.

II. *Sea-walls* have also been built for the preservation and protection of the headlands in the harbor at Point Allerton, Great Brewster Island, Lovell's Island (north and southeast heads), Gallop's Island, Long Island (north head), Rainsford Island, and Deer Island (north middle and south heads), all of which are now generally in good condition.

III. *Sunken rocks* have also been broken up and removed as follows, viz:

Kelly's Rock, and several sunken ledges near it, Tower Rock, Corwin Rock, the ledges recently discovered at the west end of Great Brewster Spit, and between there and George's Island (all situated in the main ship channel at "the Narrows"), to a depth of 23 feet at mean low-water. Barrel Rock in Broad Sound, State and Palmyra Rocks situated about ½ a mile east of Castle Island, have also been removed. Nash's Rock Shoal in the outer entrance to the harbor has also been removed to a depth of not less than 20½ feet at mean low-water, an increase of 7 feet in depth.

In the annual report for the fiscal year ending June 30, 1878, will be found a complete history of the above works, so far as can be ascertained, showing their commencement, progress, and completion, which it is not deemed necessary to repeat in this report.

From the foregoing statements, considered in connection with the projects and estimates submitted in the last annual report, it is seen

that the work that remains to be done for completing all the improvements now projected for this harbor consists of the following, to-wit:

1. Completing the dredging at the Man-of-War Shoal, say 25,000 cubic yards at 27 cents per cubic yard as per contract for the same.....	\$6,750 00
2. Breaking up and removing 145 cubic yards of sunken ledge below Kelly's Rock, at \$43 per cubic yard, as per contract for the same.....	6,235 00
3. Deepening and widening the main ship channel at Anchorage Shoal (next above the Upper Middle) to a depth of 23 feet at mean low-water for a least width of 1,000 feet, 135,000 cubic yards at 60 cents per cubic yard.....	81,000 00
4. Increasing to a width of 600 feet, for a depth of 23 feet at mean low-water, the main ship-channel at the Lower Middle, 6,000 cubic yards at 75 cents per cubic yard.....	4,500 00
5. Straightening, widening, and deepening the main ship-channel in the upper harbor near the mouth of Mystic River, and in front of the navy-yard, 125,000 cubic yards of dredging at 50 cents per cubic yard.....	62,500 00
6. For straightening, widening, and deepening the main ship-channel in the upper harbor, from the mouth of Charles River up to western avenue bridge, and thence up to the head of tide-water at Watertown, as per special report on same, dated December 17, 1878, herewith.....	74,600 00
7. For repairs of the several sea-walls built for the preservation of this harbor.....	5,500 00
8. Add for engineering and other incidental expenses, say.....	27,221 84
Total.....	268,306 84
Amount available July 1, 1879 (as above), to be expended during the fiscal year ending June 30, 1880.....	73,306 84
Additional amount required for completing all the work now projected for the improvement of Boston Harbor.....	195,000 00

This amount can be profitably expended during the fiscal year ending June 30, 1881.

The several works built and projected for the improvement of this harbor lie within the port of Boston and in the collection-district of Boston and Charlestown, Mass.

The following information in regard to the revenue and commerce of the port of Boston for the year ending December 31, 1878, has been furnished by the United States collector of customs at that port, viz:

AMOUNT OF REVENUE.

For duties.....	\$12,734,822 75
For fees.....	204,786 94
Value of exports.....	50,375,392 00
Value of imports.....	36,679,863 00
Arrivals, coastwise.....	998
Arrivals, foreign.....	2,201
Clearances, coastwise.....	1,354
Clearances, foreign.....	2,138
Vessels built, 18; tonnage.....	8,166 ⁷⁸ / ₁₀₀

The following papers are hereto appended, viz:

1. Abstract of proposals received.
2. Abstracts of contracts made.

Money statement.

July 1, 1878, amount available.....	\$75,201 44
Amount appropriated by act approved March 3, 1879.....	50,000 00
July 1, 1879, amount expended during fiscal year.....	\$125,201 44
July 1, 1879, outstanding liabilities.....	49,402 50
	2,492 10
	51,894 60
July 1, 1879, amount available.....	73,306 84
Amount (estimated) required for completion of existing project.....	195,000 00
Amount that can be profitably expended in fiscal year ending June 30, 1881.....	195,000 00

Abstract of proposals received August 5, 1878, for improvement of Boston Harbor, Mass.

Number for reference.	Bidders.	Residence.	Removal of sunken ledges near Kelly's Rock, as measured in its bed.	Dredging Man-of-War Shoal, as measured in the scows.
1	Isaac A. Sylvester.....	Quincy, Mass.....	Per cu. yd. \$43 00	Per cu. yd. Per ton.
2	George W. Townsend.....	Boston, Mass.....	50 00	
3	Isaac Hamilton.....	Portland, Me.....	74 00	
4	Jos. E. Bartlett.....	Boston, Mass.....		\$0 27
5	George C. Fobes & Co.....	Baltimore, Md.....		43
6	Emory R. Seward.....	Albany, N. Y.....		43
7	Atlantic Dredging Company.....	Brooklyn, N. Y.....		50
8	Harbor Improvement Company.....	Boston, Mass.....		55
9	Boynton Bros.....	do.....		59
10	Elijah Brainard, jr.....	Albany, N. Y.....		1 00
11	William S. Fretch & Co.....	Boston, Mass.....		

* Boulders over two tons.

Abstract of contracts made during the fiscal year ending June 30, 1879, for improvement of Boston Harbor, Mass.

Date of contracts.	Contractors.	Nature of work.	Price.
Aug. 15, 1878	Joseph E. Bartlett, Boston, Mass.	Dredging Man-of-War Shoal, 65,000 cubic yards, more or less.	27 cents per cubic yard, as measured in the scows.
Aug. 26, 1878	Isaac A. Sylvester of Quincy, Mass.	Breaking up and removing sunken ledges near Kelly's Rock, 145 cubic yards, more or less.	\$43 per cubic yard, as measured in its bed.

A 13.

IMPROVEMENT OF PLYMOUTH HARBOR, MASSACHUSETTS.

The existence of this harbor depends entirely upon the protection and preservation of Long Beach, which is a narrow strip of land that extends 2³/₄ miles out from the main land, in a northwesterly direction, nearly parallel to the shore of the town of Plymouth, and distant from it about 1 mile. It affords to the harbor its only shelter from easterly storms. In late years it has been washed away in some places and much weakened in others, to an extent seriously threatening the ruin of the harbor. For the protection and preservation of this beach various works have been built, from time to time, until finally they have proved efficient and successful.

These works consist of bulkheads, jetties, and groins built for the accumulation of sand, and the planting of beach-grass, also to accumulate sand and give permanency to the beach thus formed, whereby a ridge has been formed throughout the whole extent of the beach, which is for the most part covered with beach-grass, and is now in an efficient condition.

The total amount that has been appropriated by Congress for the preservation and improvement of this harbor, from 1824 up to and including March 3, 1879, is \$122,067.

Of this amount there has been allotted to and appropriated for this

harbor, since the resumption of work on rivers and harbors in 1866, the sum of \$64,800, as follows, viz:

Amount allotted in 1866 from appropriations made July 2, 1864, for harbors on the Atlantic coast	\$8,300
Amount allotted under act of July 25, 1868	7,500
Appropriated by act approved July 11, 1870	10,000
Appropriated by act approved March 3, 1871	10,000
Appropriated by act approved June 10, 1872	2,500
Appropriated by act approved March 3, 1873	3,000
Appropriated by act approved June 23, 1874	5,000
Appropriated by act approved March 3, 1875	10,000
Appropriated by act approved June 18, 1878	5,000
Appropriated by act approved March 3, 1879	3,500
Total	64,800

A history and description of the several works built for the protection and preservation of Long Beach will be found in the annual report for the fiscal year ending June 30, 1877.

For the permanent preservation of the extreme outer end of the beach, near the beacon, a rubble-stone bulkhead has been built. But, owing to its exposed position, the beach has not grown to the extent desired; so that it has been found necessary to extend this bulkhead further round the end of the beach.

Under the appropriation of \$5,000 made for this harbor by the river and harbor act of June 18, 1878, the work for the extension of the stone bulkhead, and the repairs of the other works where necessary, was carried on from the 20th of August to the end of November last, the work having been done by hired labor, with stone and other materials purchased in open market. During that period 1,435 tons of large and small stone were purchased and placed in the works (viz: the stone and wooden bulkheads and jetties); also about 35 tons of brush in the repairs of the wooden bulkhead and jetties. Work was resumed about the middle of June, 1879, since which time 213 tons of granite grout has been purchased and placed upon the stone bulkhead, in extension of the same, making a total of 1,648 tons of stone during the year.

The works projected for the improvement and preservation of Long Beach are now all completed with the exception of the extension of the stone bulkhead on its outer end, which will probably be completed about the 1st of September next.

In a recent inspection of these works, they were all found in good condition. But, exposed as they are to violent easterly storms, they necessarily will require occasional repairs. The unexpended balance of the appropriation of June 18, 1878, will probably be sufficient for the completion of the stone bulkhead and all the repairs that may be necessary during the year ending June 30, 1880.

Under an appropriation of \$10,000 by the river and harbor act of March 3, 1875, for the improvement of this harbor, a channel was opened by dredging from the Middle Ground up to Long Wharf, a distance of about 2,500 feet, to a depth of 6 feet at mean low-water (or 16 feet at mean high-water), and for a width of 50 feet. The project originally provided for a channel 100 feet in width, to be extended southward to the mouth of Town Brook, a distance of about 900 feet above Long Wharf, so as to form a basin in front of the wharves of the city 125 feet in width, with a depth of 8 feet at mean low-water. For the completion of this project the additional sum of \$25,000 was asked in my last annual report to the Chief of Engineers, since published by Congress, of which amount \$3,500 was appropriated by the river and harbor act of March 3, 1879, leaving still required for completion \$21,500.

The following information as to the revenue and commerce of the port of Plymouth, Mass., for the year ending December 31, 1878, has been furnished by the collector of customs at that port, viz:

Amount of revenue collected	\$29,572.04
Value of exports	\$3,540.00
Vessels cleared for foreign ports	2
Tonnage	134.78
Vessels cleared for the cod-fishery	25
Tonnage	1,355.69
Product	\$32,000.00
Arrivals, coastwise	111
Clearances, coastwise	25

Money statement.

July 1, 1878, amount available	\$5,088.07
Amount appropriated by act approved March 3, 1879	3,500.00
July 1, 1879, amount expended during fiscal year	\$8,588.07
July 1, 1879, amount available	2,992.60
July 1, 1879, amount available	5,595.47
Amount (estimated) required for completion of existing project	21,500.00
Amount that can be profitably expended in fiscal year ending June 30, 1881	21,500.00

A 14.

IMPROVEMENT OF PROVINCETOWN HARBOR, MASSACHUSETTS.

The following amounts have been allotted to and appropriated for the preservation of this harbor since the resumption of work on rivers and harbors in 1866, viz:

Amount allotted in 1866 from appropriation made July 2, 1864, for harbors on the Atlantic coast	\$15,000.00
Amount appropriated by act of June 23, 1866	43,068.44
Amount allotted under act of April 10, 1869	9,000.00
Amount appropriated by act of March 3, 1871	6,000.00
Amount appropriated by act of June 10, 1872	5,000.00
Amount appropriated by act of March 3, 1873	6,000.00
Amount appropriated by act of June 23, 1874	6,000.00
Amount appropriated by act of March 3, 1875	5,000.00
Amount appropriated by act of August 14, 1876	4,000.00
Amount appropriated by act of June 18, 1878	1,000.00
Amount appropriated by act of March 3, 1879	1,000.00
Total	101,088.44

Under the appropriation of \$1,000 made by the river and harbor act of June 18, 1878, for the preservation and improvement of this harbor, operations were confined to the extension of the stone bulkhead on Long Point, and planting beach-grass at Cove Section along the beach newly formed by the bulkhead and jetties built in 1874. This work was commenced in the latter part of August and continued until the 1st of October, in which time 506 tons of rubble-stone was placed in the bulkhead on Long Point, beach-grass planted, and the repairs completed where necessary on all the works built for the preservation and improvement of this harbor.

The works projected for the preservation and improvement of this harbor have been completed as follows, viz:

1. Bulkheads and jetties of various descriptions have been built from

time to time along Beach Point for its preservation and protection, both by the United States Government and by the local authorities.

2. A dike was built in 1868 and 1869 by the State of Massachusetts across the outlet of East Harbor Creek.

3. A dike 690 feet in length was built in 1868 and 1869 by the United States Government across East Harbor Creek at the Wading-place, near High Head, about 2 miles above the outlet of the creek.

4. In 1867 and 1868 about 6,000 linear feet of fence bulkheads and jetties were built for the protection and preservation of the beach at Long Point and Beach Point.

5. A stone bulkhead for about 700 feet in length has been built for the protection and preservation of the outer end of Long Point, the light-house, and Three-gun battery.

6. A substantial dike (272 feet in length) was built, in 1871-72, across the head of Lawcey's Harbor, near Abel Hill.

7. Beach-grass planted on Beach Point, Long Point, Abel Hill, Cove Section, and Oblique Section; and, at the last two places, brush has also been laid for their further protection.

8. The projected extension of the several jetties on Beach Point and State Dike has been completed.

9. A bulkhead and six jetties built for the preservation and protection of the beach at Cove Section, near High Head, where encroached upon by the extraordinary gales of November, 1873, and January, 1874. This bulkhead is 607 feet in length, and the jetties have an aggregate length of 126 feet. They consist of a frame-work filled with brush and ballasted with stone, and were completed in December, 1874.

These works at Cove Section have accumulated the sand to such an extent, both in height and width (since covered and strengthened with beach-grass), that it is believed that this weak portion of the beach is now secure against further encroachment by gales.

All the above-described works are generally in excellent condition, and have fully answered the purpose for which they were designed. They will, however, require constant watching and occasional repairs, exposed as they are to injury from the violent storms to which they are exposed. For this purpose an additional appropriation of \$1,000 is recommended for the fiscal year ending June 30, 1881.

The appropriation of \$1,000 made for the improvement of this harbor by the river and harbor act of March 3, 1879, it is proposed to apply to extending the stone bulkhead on Long Point, and to such repairs as may be necessary on the several other works built for the protection and preservation of this harbor.

In regard to the estimates for the work done for the preservation of this harbor, they appear to have generally agreed with the amounts that have been appropriated and expended therefor. Much of the work, however, has been for repairs and extensions, not foreseen, but absolutely necessary to be made as they have occurred, for which no previous estimates could be made.

Provincetown, in which the above-described works are situated, is a port of entry within the collection-district of Barnstable, Mass.

The following information in regard to the revenue and commerce of the port of Provincetown, for the year ending December 31, 1878, has been furnished by the United States deputy collector of customs at that port, viz:

Amount of revenue collected.....	\$2,047 95
Value of imports.....	92,249 00
Value of exports.....	19,272 00
Number of arrivals and departures of vessels.....	8,136

Money statement.

July 1, 1878, amount available.....	\$1,107 29
Amount appropriated by act approved March 3, 1879.....	1,000 00
	<u>\$2,107 29</u>
July 1, 1879, amount expended during fiscal year.....	851 32
July 1, 1879, amount available.....	<u>1,255 97</u>
Amount (estimated) required for completion of existing project.....	1,000 00
Amount that can be profitably expended in fiscal year ending June 30, 1881.....	1,000 00

A 15.

SURVEY OF LINCOLNVILLE HARBOR, MAINE.

UNITED STATES ENGINEER OFFICE,
Portland, Me., December 16, 1878.

GENERAL: I have the honor to submit the following report on the survey of Lincolnville Harbor, Maine, called for by act of Congress approved June 18, 1878, "making appropriations for the construction, repair, preservation, and completion of certain public works on rivers and harbors, and for other purposes."

This survey was made in September last by Mr. A. C. Both, assistant engineer, whose report and map of the same are also herewith submitted.

Lincolnville Harbor is an indentation of the western coast of Penobscot Bay at the mouth of Duck Trap River, about seven miles north of the light-house at the entrance to Camden Harbor, and distant about 12 miles by water from the port of Belfast. Its importance is chiefly owing to the water-power afforded by Duck Trap River, as well as to the extensive lime quarries and kilns at and near this place. On referring to the map, herewith, it is seen that this harbor from the bridge at the head of it to its entrance, about 800 feet below, is dry at mean low-water, the bottom varying from 0 to 3½ feet above that plane; and thence, for a distance of about 1,100 feet outside, the depth increases from 0 to 3 feet at mean low-water. In order to meet the wants of the commerce of this place, I have projected a channel (as shown on the accompanying drawing) extending from the bridge at the head of the harbor to deep water, for a length of about 1,900 feet, with a depth of 3 feet at mean low-water, or about 13 feet at ordinary high-water, (the mean rise and fall of the tides being 9.8 feet), and a width varying from 50 to 80 feet, terminating at its upper end in a basin 250 feet in length by an average of 110 feet in width—so made that vessels may have room to turn round, and at the same time give to both sides of the harbor the benefit of the projected improvement. Numerous borings have been made along this channel, in order to ascertain the character of the material necessary to be dredged; and they show that the upper portion of it consists of coarse gravel, small rocks, and sand, and the lower portion chiefly of gravel, sand, and mud—a material which offers no difficulties in dredging.

For the better protection of the channel at the entrance (B), a temporary breakwater has been built with such means as were at hand; but this work requires extension and strengthening with rubble-stone to make it more effective and permanent.