

SCHEDULE OF PAPERS

ACCOMPANYING THE REPORT OF THE SECRETARY OF THE NAVY.

- No. 1. Estimate for the office of the Secretary of the Navy and the several bureaus.
- No. 2. General estimate for the navy and marine corps.
- No. 3. Report from the Bureau of Yards and Docks.
Estimates, in detail, from the Bureaus of—
- No. 4. Yards and Docks.
- No. 5. Ordnance and Hydrography.
- No. 6. Construction, Equipment, &c.
- No. 7. Provisions and Clothing.
- No. 8. Medicine and Surgery.
- No. 9. Estimates for the marine corps, in detail.
- No. 10. Report of the Commissioner of Pensions, with estimate.
- No. 11. Report of the Fourth Auditor, with statement of expenditures of navy pension fund.
- No. 12. List of deaths in the navy.
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- No. 14. List of dismissals in the navy.
- No. 15. Report of Lieutenant W. W. Hunter.
- No. 16. Report of Captain R. F. Stockton.
- No. 17. Report of the survey of Memphis.
- No. 18. Report on the cultivation of hemp.
- No. 19. Report of Commander C. Wilkes.
- No. 20. Report of Lieut. J. M. Gilliss.
- No. 21. Report of Captain J. T. Newton.
- No. 22. Report of Professor W. R. Johnson.

No. 1.

General estimate of the amount required for the support of the office of the Secretary of the Navy, and of the bureaus of the Navy Department; also, for the contingent expenses of the southwest executive building, for the year ending June 30, 1845.

	Salaries.	Contingent.	Total.
Office of the Secretary of the Navy -	\$19,350	\$2,000	\$21,350
Submitted	8,400	300	8,700
Bureau of Yards and Docks -	10,400	550	10,950
Bureau of Ordnance and Hydrography	7,400	520	7,920
Bureau of Construction, &c. -	9,100	500	9,600
Submitted	3,335	-	3,335
Bureau of Provisions and Clothing -	7,100	650	7,750
Submitted	2,938	-	2,938
Bureau of Medicine and Surgery -	5,200	600	5,800
Southwest executive building -	1,345	2,825	4,170
Submitted	600	-	600
	<u>75,168</u>	<u>7,945</u>	<u>83,113</u>

Estimate of the sums required for the support of the office of the Secretary of the Navy, for the year ending June 30, 1845.

Salary of the Secretary of the Navy -	-	-	-	\$6,000
Clerks and messengers -	-	-	-	13,350
				<u>19,350</u>

For contingent expenses, viz :

For blank books, binding, and stationery -	-	-	-	\$800
For extra clerk-hire -	-	-	-	4,000
For printing -	-	-	-	300
For labor -	-	-	-	350
For miscellaneous items -	-	-	-	350
For newspapers and periodicals -	-	-	-	200
				<u>6,000</u>

SUBMITTED :

For expense of translating a work on the cultivation and preparation of hemp from the Russian language -	-	-	-	\$300
For three additional clerks for the office of the Secretary of the Navy, at \$1,000 -	-	-	-	3,000
For one clerk, to be placed in charge of all the papers, records, and				

correspondence of the late office of the Navy Commissioners, to properly arrange and index the same for convenience of reference, together with such other duties necessary to be assigned him by the department

1,400

\$4,700

Estimate of the sums required for the expenses of the southwest executive building, for the fiscal year ending June 30, 1845.

Superintendent	-	-	-	-	-	-	\$250
Three watchmen	-	-	-	-	-	-	1,095
Labor	-	-	-	-	-	-	325
Fuel and light	-	-	-	-	-	-	1,350
Miscellaneous items	-	-	-	-	-	-	1,150
							<u>\$4,170</u>

SUBMITTED :

An additional sum of \$200 each, for the watchmen, in consideration of their being required to watch day and night, to wit: from 3 o'clock, p. m., until relieved by the messengers of the department, about 8 o'clock, a. m. When their salaries were formerly fixed at \$500, they were required to watch only from sunset to sunrise.

Estimate of the sums required for the support of the Bureau of Yards and Docks, for the year ending June 30, 1845, under act of Congress approved August 31, 1842.

Commodore L. Warrington, chief of bureau	-	-	-	-	-	-	\$3,500
William G. Ridgely, chief clerk	-	-	-	-	-	-	1,400
Stephen Gough, clerk	-	-	-	-	-	-	1,000
William P. Moran, clerk	-	-	-	-	-	-	800
Wm. P. S. Sanger, engineer	-	-	-	-	-	-	2,000
Geo. F. de la Roche, draughtsman	-	-	-	-	-	-	1,000
Charles Hunt, messenger	-	-	-	-	-	-	700
Contingent expenses	-	-	-	-	-	-	550
							<u>\$10,950</u>

BUREAU OF YARDS AND DOCKS,
November 21, 1843.

L. WARRINGTON,
Chief of Bureau.

Estimate of the sums required for the support of the Bureau of Medicine and Surgery, for the year ending June 30, 1845, under the law of August 31, 1842.

For the salary of the chief of the bureau	-	-	\$2,500	
For the salaries of two clerks and messenger	-	-	2,700	
				\$5,200
Contingent expenses:				
Blank books and stationery	-	-	400	
Miscellaneous items	-	-	200	
				600
				<u>\$5,800</u>

NAVY DEPARTMENT,
Bureau of Medicine and Surgery, November 29, 1843.

No. 2.

General estimate of the amounts required for the support of the navy, for the year ending June 30, 1845.

[For particulars, see detailed estimates from the several bureaus.]

For pay of commission, warrant, and petty officers and seamen, including the engineer corps of the navy, viz:				
For vessels in commission	-	-	\$2,999,684 00	
For navy-yards and shore-stations	-	-	497,742 00	
For officers on leave or waiting orders	-	-	225,000 00	
				\$3,722,426 00
For pay of superintendents, naval constructors, and all the civil establishments of the several yards	-	-		88,320 00
For provisions for the navy, including transportation, cooperage, and other expenses	-	-		1,027,037 00
For surgeons' necessaries and appliances for the sick and hurt of the navy, including the marine corps	-	-		42,250 00
For the increase, repair, armament, and equipment of the navy, and wear and tear of vessels in commission	-	-		1,900,000 00
For ordnance and ordnance stores, including all incidental expenses and liabilities on outstanding contracts	-	-		620,885 00
For books, maps, charts, and instruments, binding and repairing the same, and all expenses of the Hydrographic Office	-	-		43,200 00

For improvements and necessary repairs of navy-yards, viz:			
At Portsmouth, New Hampshire	-	\$44,220	60
At Charlestown, Massachusetts	-	121,201	53
At Brooklyn, New York	-	81,118	00
At Philadelphia, Pennsylvania	-	34,615	16
At Washington, District of Columbia	-	46,230	00
At Gosport, Virginia	-	124,680	00
At Pensacola, Florida	-	50,137	26
			\$502,202 55
For necessary repairs of hospital buildings and their dependencies, viz:			
At Charlestown, Massachusetts	-	1,700	00
At Brooklyn, New York	-	1,500	00
At Washington, District of Columbia	-	250	00
At Norfolk, Virginia	-	4,000	00
At Pensacola, Florida	-	5,000	00
At the naval asylum, Philadelphia	-	7,090	00
			19,540 00
For necessary repairs of magazines, viz:			
At Charlestown, Massachusetts	-	200	00
At Brooklyn, New York	-	200	00
At Washington, District of Columbia	-	200	00
At Norfolk, Virginia	-	750	00
			1,350 00
For contingent expenses, as per estimate of Bureau of Yards and Docks		175,000	00
For contingent expenses, as per estimate of Bureau of Construction, &c.		213,800	00
For storage and rent; travelling expenses of officers and transportation of seamen; house-rent to pursers, when duly authorized; funeral expenses; commissions, clerk-hire, office-rent, stationery, and fuel, to navy agents; premiums and incidental expenses of recruiting; apprehending deserters; per diem allowance to persons attending courts martial and courts of inquiry, or other services authorized by law; compensation to judge advocates; printing and stationery of every description; pilotage and towing of vessels of war; assistance rendered to vessels in distress; postage of letters on public service		111,200	00
			500,000 00
For contingent expenses for objects not enumerated	-	-	5,000 00
For coal and other fuel for steam-vessels	-	-	84,080 00
			\$8,556,290 55

MARINE CORPS.

For pay of officers, non-commissioned officers, musicians, privates, and servants, serving on shore, and subsistence of officers	-	-	-	-	-	\$200,815 60
For clothing	-	-	-	-	-	43,635 00
For provisions	-	-	-	-	-	45,011 95
For fuel	-	-	-	-	-	16,274 12
For military stores	-	-	-	-	-	2,800 00
For transportation	-	-	-	-	-	8,000 00
For repair of barracks	-	-	-	-	-	6,000 00
For contingencies	-	-	-	-	-	17,980 00
						<u>\$340,516 67</u>

Estimate of the amount required for the pay of officers of the navy on leave of absence, or waiting orders, for the year ending June 30, 1845.

Number.	Rank.	Rate of pay.	Amount.
30	Captains	\$2,500	\$75,000
36	Commanders	1,800	64,800
50	Lieutenants	1,200	60,000
5	Surgeons, (average)	1,400	7,000
10	Masters, superannuated	750	7,500
			<u>214,300</u>
	Add for difference of pay for officers on occasional temporary duty, such as courts martial, courts of inquiry, boards of examination, &c.	-	10,700
			<u>\$225,000</u>

No. 3.

BUREAU OF YARDS AND DOCKS,
November 24, 1843.

SIR: I have the honor to present to you, conformably to the directions contained in your letter of the 1st of September, the estimates for the improvements of the navy-yards, for the repairs of all buildings which require them, and for the support of the establishments belonging to or connected with them—including the civil as well as naval officers attached

to them. I also forward the estimates for the improvement, repair, and support of the several naval hospitals; and also for the preservation and repair of the magazines. Those for the receiving vessels, recruiting stations, and ordinary of the several yards, accompany them.

The amount called for by me, for the year commencing on the 1st of July, 1844, and ending on the 30th of June of the subsequent year, is \$1,256,274 55; being \$200,525 84 more than was called for, for the twelve months beginning on the 1st of July of the present year. The cause of this is to be sought and found in addition to the sum for contingent, which has been found to be considerably short of the supposed actual expenditure; in the recommendation for a larger portion of improvements; and a very small increase in the salaries of superintendents. Of the first, the increase is \$85,000; of the second, \$167,234 09; and of the last, \$14,600.

The deficiency of a proper police for the yards, as watchmen to guard the public property, and their consequent increase, causes the first item to be swelled to a larger amount than that of last year; and a belief that works of great importance to the public interests may be prosecuted to advantage within the period for which the estimates are made, produces the increase of the second item.

Our several yards, from Portsmouth, N. H., to Norfolk, inclusive, have so many demands on them for the proper arrangement of the building, repairing, equipping, and storage branches of the service, that it becomes a measure of sound economy, at a time when wages and materials are lower than they have been for years, that a more rapid progress should be made in buildings, wharves, and other conveniences, to meet the present and probable increasing demands of those branches. The improvements are being made in strict accordance with the plans of the various establishments, approved in 1828 by the Executive, and furnish almost daily evidence of the forecast and discretion which marked their preparation.

It may be proper to state a little more particularly, and in detail, the works at the several points which go to form the aggregate of these calculations, and put you in possession, in a brief manner, of what is now going on, and is contemplated at each.

The yard at Portsmouth, N. H., being the most northern, I shall begin with it, and continue the enumeration to Pensacola, in rotation.

At this yard, after completing a variety of works within the past year, which have been in hand for longer or shorter periods, to the amount of \$101,508 35, we propose to continue the construction of the quay walls, begun some time back; which is a most important matter, and almost indispensable to the security of the yard, and the convenience of the public ships resorting to it. This is the principal work to be carried on there; the rest consisting of filling up low places, covered, or partly covered, by water; of the repairs of buildings; and for the convenience of embarkation and disembarkation of stores and supplies.

At Boston, it is in contemplation to erect one wing of a large house for the deposit of stores of all kinds, and for their preservation. It is intended to have this completed gradually, and perhaps two or three years may elapse before it is finished. It will be built in such a manner as to suffer nothing by the delay. An additional story to the rope-walk is proposed, and it is much wanted; as in it we may not only store the rough and prepared hemp in a secure place, but have it always adjacent to the spot on

which it is converted into rope. A rigging or sail loft, or another range of commodious apartments for storage, will also be thus added to the yard. Another wharf, between two of the ship-houses, and an additional height to a part of the boundary wall, are also much wanted. Machinery for the smithery and block-shop, with the requisite tools, form a considerable item; and, with the amount necessary to keep in repair all the buildings, wharves, and slips, will make up the whole of the improvements which are designed to be the result of this estimate.

At New York, a new smithery, to be commodious, and adapted to the increasing operations of the yard, with a cob-wharf around the mud flats on one side of the yard, will form the principal items of the sum asked. It is intended to finish, with the sum asked for the wharf, about one-half of the whole; leaving the remainder to be carried on subsequently. It is of great consequence to commence soon, as by it we shall be relieved of the expense and labor of clearing, by machinery, the channel; and, with what may be taken up, may add considerably to the solid surface of the yard—a thing very desirable, as room is much wanted.

The other works to be accomplished are, a stable, a building for steam-engines, and the repair of all edifices, &c. which may require it within the period allotted. I consider this a proper time, and a fit place, to state, more formally than I have hitherto done, that a plan of this yard has been, by my order, made within the year, by the civil engineer of the navy, and will, I believe, on examination, be found to be as well adapted to the wants of the establishment, and as economically as well as methodically arranged, as those of the other yards. For want of such a plan, no improvements commensurate with the importance of this yard have been undertaken; and, consequently, the little that has been done has been of a more temporary nature than was desirable. In a very short time I shall have the honor of laying it before you, for your decision, and for such alterations as may be suggested by you.

At Philadelphia, the principal, and, I may add, the whole of the works to be undertaken, with the exception of the repair of buildings, are those for extending the wharves, and for the erection of piers at their ends, to serve as sluices. The rapid manner in which the silt is deposited by the downward current of the Delaware at the extremities of the present wharves, has compelled us to extend them several times, to enable us to launch the several vessels which have been built; and it is confidently expected that, when the work of the kind now in progress is completed, we shall have no further occasion for such an outlay. This has been commenced, and is going on in a workmanlike and skilful manner.

At Washington, the works to be undertaken, with the amount asked for, are for the repair and raising of some of the wharves; machinery for the engineer's branch of business; extension of works in the forges and anchor shops; and for improvements in the latter, such as forge hammers, forges, and blowers. A-house for a galvanizing apparatus; a small addition to the houses of three of the officers; and repairs of the buildings generally, make up the remaining items at this yard. Several important buildings are necessary to this yard, to enable it to prepare with care, despatch, and economy, the various metallic articles of equipment so much wanted by our vessels. Its contiguity to the iron and coal beds of this portion of the country, and the commencement of works for the preparation of water-tanks, of chain cables, of cambooses, of anchors, and of all other

such requisites, give to it advantages which it would seem proper to extend as rapidly and as widely as the sums to be placed at our disposal will admit. If the means in buildings and machinery were prepared, we could constantly employ, with great benefit, a force of four or five hundred men, in the manufacture of the above-mentioned principal articles, and various others of less cost, though of not less demand.

At Norfolk, the continuation of the line of quay walls, and the completion of the wet basin, (commonly called the timber dock,) form two of the principal works included in this estimate. They are both much wanted: the first, to complete the east front of the north section of the yard, and to give accommodation to vessels; and the second, to fill out the plan of that portion of the yard, for which large improvements are contemplated. It is intended that vessels of an easy draught of water shall enter this basin for the discharge and embarkation of stores, &c., in addition to the convenience of landing timber and other bulky articles. Upon this basin the mast-house is placed; and as soon as the former is finished, the masts will be floated into the building, or out of it, as occasion may require, with great ease, and at a very small expense, compared to that which would be encountered by hauling them on the land. The boat-house is also placed on it, and, by means of a railway, possesses the advantage of a quick and easy transportation for all its materials and productions. To build an additional store-house; to finish another; and raise the roof of a long range of buildings on the north side, or front of the yard, so as to enable it to answer the purpose designed for it, on the plan of the yard; and to give (what is much wanted) good accommodation for fitting and storing rigging, form three other items of consequence to this establishment. A bridge across the timber dock; the repairs of all buildings; and the completion of a building slip, laid down on the plan of the yard, and on which the ship *Jamestown* is building, form the remaining items. All these works, it is considered, are very necessary; and it is believed to be very proper to urge them forward as fast as comports with a due regard for their proper erection and completion; as the ease of approach, and the mildness of the climate, unite to make this a most important port for equipment at all times, but most particularly in winter.

I come now to the last yard—that of Pensacola; and have to observe, that the erection of four houses for officers; the building of a store-house, and of a floating water-tank, by which to convey expeditiously to vessels in want, a supply of water; with a provision for the general repair of all works requiring it, constitute the objects for which the estimate is made. Houses for officers are there more indispensable than at any other yard, as there are no means of obtaining accommodation near the yard—or, rather, so near as to enable those requiring it to give as much of their attention as is proper to a due discharge of their duty. It would be desirable to have a supply of water brought to this yard by iron pipes; but, as it was estimated for last year, and omitted in the appropriation bill, I have not deemed it proper to submit it again; and the more particularly, as it would seem to be a very large sum for such a purpose. The distance, however, which it would require to be brought, and the difficulty of preparing the source for a full supply, would be the causes of the great outlay. I have called on the commandant of the yard for a statement, in detail, of the expense; of the quantity which may be afforded daily; and of the capacity of the source whence the water is supplied; which will be submitted

hereafter, should it be deemed by you of such importance as to render a special application for the amount necessary.

Presuming it would be satisfactory for you to know what has been doing since the last report, in the way of improvements, and the amount expended at the different points, I subjoin a statement of those which have been completed since October 1st, 1842, and the sums expended on them.

At Portsmouth, N. H., wharves Nos. 1, 2, and 3, a permanent building slip for a frigate, a portable bridge, and a dock for soaking knees, have been finished, at a cost of \$101,508 35.

At Boston, a ship-house and a steam-engine for the ropewalk have been completed, in addition to several less costly but useful works, and the amount expended is \$62,256 37.

At New York, a few small works only have been erected, and those but to serve the immediate wants of the establishment, and their amount is \$29,214 35. The cause of this small expenditure for such purposes is owing to the hitherto unsettled state of the question relative to its continuance at that point, and the kind of works which should be considered proper. As it seems now to be decided that the yard will be suffered to remain where it is, it is hoped that buildings and other proper works will be erected and put up in it, commensurate with its advantages and importance.

At Washington, a small amount only has been laid out in finished works, which are the foundation of the shears, and a machine for proving, by hydraulic power, the chain cables of the navy. The total is \$12,487 31.

At Norfolk, several important works are in progress—as quay walls, wharves, store-houses, &c. ; but as none of these have been completed, the sum of \$11,050 only has been laid out on finished works, which are of considerable use, but of little magnitude.

At Pensacola, several works have been finished, but of no other importance than as affording accommodation to stores, and convenience to the sick. The amount expended hereon is \$23,041 36.

In the commencement of my report, I stated that one or two items of the present estimates had been increased beyond the amount called for, on account of the same items, for the last year.

It is proper to state, in connexion with that circumstance, that there are others which have been reduced below similar items in the last year, viz : the item of pay is less by \$64,134 ; that for hospitals, by \$1,574 25 ; and that for magazines, by \$600 : making an aggregate of \$66,308 25.

I have the honor to be, very respectfully, your obedient servant,
L. WARRINGTON,
Chief of Bureau.

Hon. D. HENSHAW,
Secretary of the Navy.

No. 4.

Schedule of the papers accompanying the report of the Chief of the Bureau of Yards and Docks to the Secretary of the Navy.

Y. & D.—A.—General estimate.

Y. & D. No. 1.—Receiving vessels, in detail, being part of the first item in the general estimate.

Y. & D. No. 2.—Recruiting stations, in detail, being part of the first item in the general estimate.

Y. & D. No. 3.—Officers and others at yards and stations, in detail.

Y. & D. No. 4.—Improvements and repairs of navy-yards.

Y. & D. No. 5.—Statement showing the sums which make up the first and second items in the general estimate.

Y. & D.—A.

GENERAL ESTIMATE.

Estimated amounts that will be required for the naval service for the year ending June 30, 1845, so far as coming under the cognizance of the Bureau of Yards and Docks, in addition to the unexpended balances which may remain in the treasury July 1, 1844.

1. For the pay of commission, warrant, and petty officers, (see paper marked Y. & D. No. 5.) - \$469,862 00
2. For the pay of superintendents, naval constructors, and all the civil establishments at the several yards and stations, (see paper marked Y. & D. No. 3, for detail) - 88,320 00
3. For the improvement and necessary repairs of navy-yards, (see paper marked Y. & D. No. 4,) viz :

Portsmouth, N. H.	-	-	-	-	\$41,220 60	
Boston	-	-	-	-	121,201 53	
New York	-	-	-	-	81,118 00	
Philadelphia	-	-	-	-	34,615 16	
Washington	-	-	-	-	46,230 00	
Gosport	-	-	-	-	124,680 00	
Pensacola	-	-	-	-	50,137 26	
						502,202 55

4. For hospital buildings and their dependencies, viz :

Charlestown	-	-	-	-	\$1,700 00	
Brooklyn	-	-	-	-	1,500 00	
Washington	-	-	-	-	250 00	
Norfolk	-	-	-	-	4,000 00	
Pensacola	-	-	-	-	5,000 00	
Philadelphia, asylum	-	-	-	-	7,090 00	
						19,540 00

5. For magazines, viz :

Charlestown	-	-	-	-	\$200 00
Brooklyn	-	-	-	-	200 00
Washington	-	-	-	-	200 00
Norfolk	-	-	-	-	750 00

 \$1,350 00

6. For contingent expenses that may accrue for the following purposes, viz :

For the freight and transportation of materials and stores for yards and docks; for printing and stationery; for books, maps, models, and drawings; for the purchase and repair of fire-engines, and for machinery of every description; for the repair of steam-engines in yards; for the purchase and maintenance of horses and oxen; for carts, timber-wheels, and workmen's tools of every description; for postage of letters on public service; for coals and other fuel; for candles and oil for use of navy-yards and shore stations; for incidental labor at navy-yards, not applicable to any other appropriation; and for no other object or purpose whatever

 175,000 00

 1,256,274 55

BUREAU OF YARDS AND DOCKS,
November 21, 1843.

L. WARRINGTON,
Chief of Bureau

Y. & D. No. 1.

RECEIVING VESSELS.

Estimate of the number and pay of officers and others required for the receiving vessels, for the year ending June 30, 1845, if no alteration is made in the number of vessels or in their respective complements.

	Boston.	New York.	Philadelphia.	Norfolk.	New Orleans.	Charleston.	Total.	Aggregate amount.
Captains - - -	1	1	-	1	-	-	3	\$10,500
Commanders - - -	1	1	1	1	1	1	6	12,600
Lieutenants - - -	4	4	2	4	2	2	18	27,000
Masters - - -	1	1	1	1	1	1	6	6,000
Pursers - - -	1	1	-	1	-	-	3	7,500
Surgeons - - -	1	1	-	1	-	-	3	7,200
Assistant surgeons - - -	1	1	-	1	-	-	3	3,600
Chaplains - - -	1	1	-	1	-	-	3	3,600
Passed midshipmen - - -	3	3	-	3	-	-	9	6,750
Midshipmen - - -	6	6	3	6	3	3	27	9,450
Clerks - - -	1	1	-	1	-	-	3	1,500
Boatswains - - -	1	1	-	1	-	-	3	2,400
Gunners - - -	1	1	-	1	-	-	3	2,400
Carpenters - - -	1	1	-	1	-	-	3	2,400
Sailmakers - - -	1	1	-	1	-	-	3	2,400
Yeomen - - -	1	1	-	1	-	-	3	1,440
Boatswain's mates - - -	2	2	1	2	1	1	9	2,052
Gunner's mates - - -	1	1	-	1	-	-	3	684
Carpenter's mates - - -	1	1	1	1	1	1	6	1,368
Quartermasters - - -	3	3	-	3	-	-	9	1,944
Masters-at-arms - - -	1	1	-	1	-	-	3	648
Ships' corporals - - -	1	1	-	1	-	-	3	540
Ships' stewards - - -	1	1	1	1	1	1	6	1,296
Officers' stewards - - -	2	2	1	2	1	1	9	1,944
Surgeons' stewards - - -	1	1	-	1	-	-	3	648
Ships' cooks - - -	1	1	1	1	1	1	6	1,296
Officers' cooks - - -	2	2	1	2	1	1	9	1,620
Captains of hold - - -	1	1	-	1	-	-	3	540
Seamen - - -	15	15	2	15	4	2	53	7,632
Ordinary seamen - - -	35	35	4	35	9	4	122	14,640
Landsmen and apprentices - - -	50	50	-	50	4	-	154	12,936
Total -	143	143	19	143	30	19	497	156,528

BUREAU OF YARDS AND DOCKS,
November 21, 1843.

L. WARRINGTON,
Chief of Bureau.

RECRUITING STATIONS.

Estimate for the pay of officers attached to recruiting stations, for the year ending June 30, 1845, if no alteration is made in the number of stations.

	Boston.	New York.	Philadelphia.	Norfolk.	New Orleans.	Charleston.	Total.	Aggregate amount.
Commandants - -	1	1	1	1	1	1	6	\$12,600
Lieutenants - -	2	2	2	2	2	2	12	18,000
Surgeons - -	1	1	1	1	1	1	6	10,500
Midshipmen - -	2	2	2	2	2	2	12	4,200
Total - -	6	6	6	6	6	6	36	45,300

BUREAU OF YARDS AND DOCKS,
November 21, 1843.

L. WARRINGTON,
Chief of Bureau.

Y. & D. No. 3.

Estimate of the pay of officers and others at navy-yards and stations, for the year ending June 30, 1845.

No.	PORTSMOUTH, N. H.	Pay.	Aggregate.
	<i>Naval.</i>		
1	Captain - - - - -	\$3,500	
1	Commander - - - - -	2,100	
1	Lieutenant - - - - -	1,500	
1	Master - - - - -	1,000	
3	Passed midshipmen, at \$750 each - - - - -	2,250	
3	Midshipmen, at \$350 each - - - - -	1,050	
1	Surgeon - - - - -	1,800	
1	Boatswain - - - - -	700	
1	Gunner - - - - -	700	
1	Carpenter - - - - -	700	
1	Sailmaker - - - - -	700	
1	Purser - - - - -	2,000	
1	Steward, assistant to purser - - - - -	360	
			\$18,360

No.	PORTSMOUTH, N. H.—Continued.	Pay.	Aggregate.
<i>Ordinary.</i>			
1	Lieutenant - - - - -	\$1,500	\$4,032
1	Carpenter's mate - - - - -	228	
6	Seamen, at \$144 each - - - - -	864	
12	Ordinary seamen, at \$120 each - - - - -	1,440	
<i>Civil.</i>			
1	Storekeeper - - - - -	1,400	8,450
1	Naval constructor - - - - -	2,300	
1	Foreman and inspector of timber - - - - -	700	
1	Clerk to the yard - - - - -	900	
1	Clerk to the commandant - - - - -	900	
1	Clerk to the storekeeper - - - - -	800	
1	Clerk (2d) to the storekeeper - - - - -	750	
1	Clerk to the master-builder - - - - -	400	
1	Porter - - - - -	300	
	Total - - - - -	-	

No.	BOSTON.	Pay.	Aggregate.
<i>Naval.</i>			
1	Captain - - - - -	\$3,500	\$25,770
1	Commander - - - - -	2,100	
2	Lieutenants, at \$1,500 each - - - - -	3,000	
2	Masters, at \$1,000 each - - - - -	2,000	
1	Surgeon - - - - -	1,800	
1	Chaplain - - - - -	1,200	
1	Professor - - - - -	1,200	
4	Passed midshipmen, at \$750 each - - - - -	3,000	
3	Midshipmen, at \$350 each - - - - -	1,050	
1	Boatswain - - - - -	800	
1	Gunner - - - - -	800	
1	Carpenter - - - - -	800	
1	Sailmaker - - - - -	800	
1	Purser - - - - -	2,500	
1	Clerk to purser - - - - -	500	
1	Steward - - - - -	360	
1	Steward, assistant to purser - - - - -	360	

No.	BOSTON—Continued.	Pay.	Aggregate.
<i>Ordinary.</i>			
2	Lieutenants, at \$1,500 each - - -	\$3,000	
1	Master - - - - -	1,000	
3	Midshipmen, at \$350 each - - -	1,050	
1	Boatswain - - - - -	700	
1	Gunner - - - - -	700	
1	Carpenter - - - - -	700	
4	Carpenter's mates, (3 as calkers,) at \$228 each	912	
2	Boatswain's mates, at \$228 each - -	456	
14	Seamen, at \$144 each - - - - -	2,016	
36	Ordinary seamen, at \$120 each - - -	4,320	
			\$14,854
<i>Hospital.</i>			
1	Surgeon - - - - -	1,750	
1	Assistant surgeon - - - - -	950	
1	Steward - - - - -	360	
2	Nurses, at \$120 each { when number of sick }	240	
2	Washers, at \$96 each { shall require them. }	192	
1	Cook - - - - -	144	
			3,636
<i>Civil.</i>			
1	Storekeeper - - - - -	1,700	
1	Naval constructor - - - - -	2,300	
1	Measurer and inspector of timber - - -	1,050	
1	Clerk to the yard - - - - -	900	
1	Clerk to the commandant - - - - -	900	
1	Clerk (2d) to the commandant - - - - -	750	
1	Clerk to the storekeeper - - - - -	900	
1	Clerk (2d) to the storekeeper - - - - -	800	
1	Clerk (3d) to the storekeeper - - - - -	600	
1	Clerk to the naval constructor - - - - -	650	
1	Keeper of the magazine - - - - -	480	
1	Porter - - - - -	300	
			11,330
Total - - - - -		-	\$55,590

NOTE.—The surgeon of the yard is to be required to attend to the marines also.

No.	NEW YORK.	Pay.	Aggregate.
<i>Naval.</i>			
1	Captain - - - - -	\$3,500	
1	Commander - - - - -	2,100	
2	Lieutenants, at \$1,500 each - - - - -	3,000	
2	Masters, at \$1,000 each - - - - -	2,000	
1	Surgeon - - - - -	1,800	
1	Chaplain - - - - -	1,200	
1	Professor - - - - -	1,200	
4	Passed midshipmen, at \$750 each - - - - -	3,000	
3	Midshipmen, at \$350 each - - - - -	1,050	
1	Boatswain - - - - -	800	
1	Gunner - - - - -	800	
1	Carpenter - - - - -	800	
1	Sailmaker - - - - -	800	
1	Purser - - - - -	2,500	
1	Clerk to purser - - - - -	500	
-1	Steward - - - - -	360	
1	Steward, assistant to purser - - - - -	360	
			\$25,770
<i>Ordinary.</i>			
2	Lieutenants, at \$1,500 each - - - - -	3,000	
1	Master - - - - -	1,000	
3	Midshipmen, at \$350 each - - - - -	1,050	
1	Boatswain - - - - -	700	
1	Gunner - - - - -	700	
1	Carpenter - - - - -	700	
4	Carpenter's mates, (3 as calkers,) at \$228 each - - - - -	912	
2	Boatswain's mates, at \$228 each - - - - -	456	
14	Seamen, at \$144 each - - - - -	2,016	
36	Ordinary seamen, at \$120 each - - - - -	4,320	
			14,854
<i>Hospital.</i>			
1	Surgeon - - - - -	1,700	
1	Assistant surgeon - - - - -	950	
1	Steward - - - - -	360	
2	Nurses, at \$120 each } when number of sick }	240	
2	Washers, at \$96 each } shall require them. }	192	
1	Cook - - - - -	144	
			3,636
<i>Civil.</i>			
1	Storekeeper - - - - -	1,700	
1	Naval constructor - - - - -	2,300	
1	Measurer and inspector of timber - - - - -	1,050	
1	Clerk to the yard - - - - -	900	

No.	NEW YORK—Continued.	Pay.	Aggregate.
1	Clerk to the commandant - - -	\$900	
1	Clerk (2d) to the commandant - - -	750	
1	Clerk to the storekeeper - - -	900	
1	Clerk (2d) to the storekeeper - - -	800	
1	Clerk (3d) to the storekeeper - - -	600	
1	Clerk to the naval constructor - - -	650	
1	Keeper of the magazine - - -	480	
1	Porter - - -	300	
			\$11,330
	Total - - -	-	\$55,590

NOTE.—The surgeon of the yard is also to be required to attend to the marines.

No.	PHILADELPHIA.	Pay.	Aggregate.
	<i>Naval.</i>		
1	Captain - - -	\$3,500	
1	Commander - - -	2,100	
2	Lieutenants, at \$1,500 each - - -	3,000	
1	Master - - -	1,000	
1	Surgeon - - -	1,800	
3	Passed midshipmen, at \$750 each - - -	2,250	
2	Midshipmen, at \$350 each - - -	700	
1	Chaplain - - -	1,200	
1	Boatswain - - -	700	
1	Gunner - - -	700	
1	Carpenter - - -	700	
1	Purser - - -	2,000	
1	Steward - - -	360	
			\$20,010
	<i>Ordinary.</i>		
1	Lieutenant - - -	1,500	
1	Boatswain's mate - - -	228	
4	Seamen, at \$144 each - - -	576	
12	Ordinary seamen, at \$120 each - - -	1,440	
			3,744
	<i>Naval asylum and hospital.</i>		
1	Captain - - -	3,500	
1	Lieutenant - - -	1,500	

No.	PHILADELPHIA—Continued.	Pay.	Aggregate.
1	Secretary - - - - -	\$900	\$8,586
1	Surgeon - - - - -	1,750	
1	Steward - - - - -	360	
2	Nurses, at \$120 each	240	
2	Washers, at \$96 each	192	
1	Cook - - - - -	144	
<i>Civil.</i>			
1	Storekeeper - - - - -	1,250	
1	Naval constructor - - - - -	2,300	
1	Inspector and measurer of timber - - - - -	900	
1	Clerk to the yard - - - - -	900	
1	Clerk to the commandant - - - - -	900	
1	Clerk to the storekeeper - - - - -	800	
1	Clerk (2d) to the storekeeper - - - - -	750	
1	Clerk to the naval constructor - - - - -	400	
1	Porter - - - - -	300	
	Total - - - - -	-	8,500
			\$40,840

NOTE.—The surgeon of the yard is also required to attend to the receiving vessel and the marines.

No.	WASHINGTON.	Pay.	Aggregate.
<i>-Naval.</i>			
1	Captain - - - - -	\$3,500	\$20,730
1	Commander - - - - -	2,100	
2	Lieutenants, at \$1,500 each - - - - -	3,000	
1	Master - - - - -	1,000	
1	Surgeon - - - - -	1,800	
3	Passed midshipmen, at \$750 each - - - - -	2,250	
2	Midshipmen, at \$350 each - - - - -	700	
1	Chaplain - - - - -	1,200	
1	Boatswain - - - - -	700	
1	Gunner - - - - -	700	
1	Carpenter - - - - -	700	
1	Purser - - - - -	2,000	
1	Steward - - - - -	360	
1	Steward, assistant to purser - - - - -	360	
1	Steward to hospital - - - - -	360	

No.	WASHINGTON—Continued.	Pay.	Aggregate.	
<i>Ordinary.</i>				
1	Lieutenant - - - - -	\$1,500		
1	Boatswain's mate - - - - -	228		
1	Carpenter's mate - - - - -	228		
6	Seamen, at \$144 each - - - - -	864		
14	Ordinary seamen, at \$120 each - - - - -	1,680		
\$4,500				
<i>Civil.</i>				
1	Storekeeper - - - - -	1,700		
1	Inspector and measurer of timber - - - - -	900		
1	Clerk to the yard - - - - -	900		
1	Clerk to the commandant - - - - -	900		
1	Clerk (2d) to the commandant - - - - -	750		
1	Clerk to the storekeeper - - - - -	800		
1	Clerk (2d) to the storekeeper - - - - -	750		
1	Master camboose maker and plumber - - - - -	1,250		
1	Chain cable and anchor maker - - - - -	1,250		
1	Keeper of the magazine - - - - -	480		
1	Porter - - - - -	300		
9,980				
\$35,210				

NOTE.—The surgeon is also required to attend to the hospital when necessary.

No.	NORFOLK.	Pay.	Aggregate.
<i>Naval.</i>			
1	Captain - - - - -	\$3,500	
1	Commander - - - - -	2,100	
2	Lieutenants, at \$1,500 each - - - - -	3,000	
2	Masters, at \$1,000 each - - - - -	2,000	
1	Surgeon - - - - -	1,800	
1	Chaplain - - - - -	1,200	
1	Professor - - - - -	1,200	
4	Passed midshipmen, at \$750 each - - - - -	3,000	
3	Midshipmen, at \$350 each - - - - -	1,050	
1	Boatswain - - - - -	800	
1	Gunner - - - - -	800	
1	Carpenter - - - - -	800	

No.	NORFOLK—Continued.	Pay.	Aggregate.	
1	Sailmaker - - - - -	\$800		
1	Purser - - - - -	2,500		
1	Clerk to purser. - - - - -	500		
1	Steward - - - - -	360		
1	Steward, assistant to purser - - - - -	360		
<i>Ordinary.</i>			\$25,770	
2	Lieutenants, at \$1,500 each - - - - -	3,000		
1	Master - - - - -	1,000		
3	Midshipmen, at \$350 each - - - - -	1,050		
1	Boatswain - - - - -	700		
1	Gunner - - - - -	700		
1	Carpenter - - - - -	700		
4	Carpenter's mates, (3 as calkers,) at \$228 each - - - - -	912		
2	Boatswain's mates, at \$228 each - - - - -	456		
14	Seamen, at \$144 each - - - - -	2,016		
36	Ordinary seamen, at \$120 each - - - - -	4,320		
<i>Hospital.</i>				14,854
1	Lieutenant - - - - -	1,800		
1	Surgeon - - - - -	1,750		
1	Assistant surgeon - - - - -	950		
1	Steward - - - - -	360		
2	Nurses, at \$120 each } when number of sick {	240		
2	Washers, at \$96 each } shall require them. }	192		
1	Cook - - - - -	144		
<i>Civil.</i>			5,436	
1	Storekeeper - - - - -	1,700		
1	Naval constructor - - - - -	2,300		
1	Inspector and measurer of timber - - - - -	1,050		
1	Clerk to the yard - - - - -	900		
1	Clerk to the commandant - - - - -	900		
1	Clerk (2d) to the commandant - - - - -	750		
1	Clerk to the storekeeper - - - - -	900		
1	Clerk (2d) to the storekeeper - - - - -	800		
1	Clerk (3d) to the storekeeper - - - - -	600		
1	Clerk to the naval constructor - - - - -	650		
1	Keeper of the magazine - - - - -	480		
1	Porter - - - - -	300		
			11,330	
			57,390	

NOTE.—The surgeon of the yard is to be required to attend to the marines also.

No.	PENSACOLA.	Pay.	Aggregate.
	<i>Naval.</i>		
1	Captain - - - - -	\$3,500	
1	Commander - - - - -	2,100	
2	Lieutenants, at \$1,500 each - - - - -	3,000	
1	Master - - - - -	1,000	
1	Surgeon - - - - -	1,800	
1	Chaplain - - - - -	1,200	
3	Passed midshipmen, at \$750 each - - - - -	2,250	
3	Midshipmen, at \$350 each - - - - -	1,050	
1	Boatswain - - - - -	700	
1	Gunner - - - - -	700	
1	Carpenter - - - - -	700	
1	Sailmaker - - - - -	700	
1	Purser - - - - -	2,500	
1	Steward - - - - -	360	
			\$21,560
	<i>Ordinary.</i>		
1	Lieutenant - - - - -	1,500	
1	Carpenter - - - - -	700	
1	Carpenter's mate - - - - -	228	
1	Boatswain's mate - - - - -	228	
10	Seamen, at \$144 each - - - - -	1,440	
60	Ordinary seamen, at \$120 each - - - - -	7,200	
			11,296
	<i>Hospital.</i>		
1	Surgeon - - - - -	1,750	
1	Assistant surgeon - - - - -	950	
1	Steward - - - - -	360	
2	Nurses, at \$120 each } when number of sick {	240	
2	Washers, at \$96 each } shall require them {	192	
1	Cook - - - - -	144	
			3,636
	<i>Civil.</i>		
1	Storekeeper - - - - -	1,700	
1	Clerk to the yard - - - - -	900	
1	Clerk to the commandant - - - - -	900	
1	Clerk (2d) to the commandant - - - - -	750	
1	Clerk to the storekeeper - - - - -	800	
1	Clerk (2d) to the storekeeper - - - - -	750	
1	Clerk (3d) to the storekeeper - - - - -	450	
1	Porter - - - - -	300	
			6,550
			43,042

NOTE.—The surgeon of the yard is also to attend to the marines near the yard, and to such persons in the yard as the commander may direct.

No.	STATIONS.	Pay.	Aggregate.
BALTIMORE.			
1	Captain - - - - -	\$3,500	
1	Lieutenant - - - - -	1,500	
1	Surgeon - - - - -	1,500	
1	Purser - - - - -	1,500	
1	Clerk - - - - -	500	
			\$8,500
CHARLESTON.			
1	Captain - - - - -	3,500	
1	Lieutenant - - - - -	1,500	
1	Surgeon - - - - -	1,500	
1	Purser and storekeeper - - - - -	1,500	
			8,000
FOR GENERAL DUTY.			
1	Chief naval constructor - - - - -	3,000	
1	Principal steam engineer - - - - -	2,500	
			5,500
SACKETT'S HARBOR.			
1	Master - - - - -	1,000	
			1,000
LAKE ERIE.			
1	Naval constructor - - - - -	2,300	
			2,300
FOREIGN STATIONS.			
1	Storekeeper at Mahon - - - - -	1,500	
1	Storekeeper at Rio de Janeiro - - - - -	1,500	
3	Storekeepers, (for the African, Pacific, and East India squadrons) - - - - -	4,500	
			7,500

RECAPITULATION.

	Naval.	Ordinary.	Hospital.	Civil.	Aggregate.
Portsmouth, N. H.	\$18,360	\$4,032	-	\$8,450	\$30,842
Boston	25,770	14,854	\$3,636	11,330	55,590
New York	25,770	14,854	3,636	11,330	55,590
Philadelphia	20,010	3,744	8,586	8,500	40,840
Washington	20,730	4,500	-	9,980	35,210
Norfolk	25,770	14,854	5,436	11,330	57,390
Pensacola	21,560	11,296	3,636	6,550	43,042
Baltimore	8,000	-	-	500	8,500
Charleston	8,000	-	-	-	8,000
General duty	-	-	-	5,500	5,500
Sackett's Harbor	1,000	-	-	-	1,000
Lake Erie	-	-	-	2,300	2,300
Foreign stations	-	-	-	7,500	7,500
For the additional storekeepers and storekeepers' clerks, from January 1 to July 1, 1844	-	-	-	5,050	5,050
	174,970	68,134	24,930	88,320	356,354

BUREAU OF YARDS AND DOCKS,
November 21, 1843.

L. WARRINGTON,
Chief of Bureau.

Y. & D. No. 4.

Estimate of the amounts that will be required for making the proposed improvements and repairs in the several navy-yards, for the year ending June 30, 1845.

Navy-yard at Portsmouth, New Hampshire.

No. 1. For completing quay walls, from S to U	-	-	\$36,286	30
2. For boat-house and landing-stage	-	-	1,227	50
3. For filling in low grounds	-	-	1,906	80
4. For repairs of all kinds	-	-	4,800	00
Total	-	-	\$44,220	60

Navy-yard at Boston.

No. 1. For store-house on site 15, north wing, &c.	-	-	\$30,561	74
2. For additional story on ropewalk	-	-	49,413	24
3. For wharf between ship-houses H and I	-	-	16,676	55
4. For raising boundary-wall west of ship-house G	-	-	2,550	00
5. For machinery and tools for smithery and block-maker's shop	-	-	8,000	00
6. For repairs of all kinds	-	-	14,000	00
Total	-	-	\$121,201	53

Navy-yard at New York.

No. 1.	For brick stables	-	-	-	\$5,000 00	
2.	For cob-wharf round mud flats	-	-	-	30,000 00	
3.	For building No. 18, for steam-engines, &c.	-	-	-	7,500 00	
4.	For smithery	-	-	-	30,000 00	
5.	For repairs of all kinds	-	-	-	8,618 00	
Total					-	<u><u>\$81,118 00</u></u>

Navy-yard at Philadelphia.

No. 1.	For completing wharves Nos. 1, 2, and 3	-	-	-	\$3,295 66	
2.	For outside pier of wharf No. 2	-	-	-	8,467 50	
3.	For outside pier of wharf No. 3	-	-	-	10,200 00	
4.	For wharf No. 4	-	-	-	6,725 00	
5.	For extending quay-walls in slip of ship-house G, &c.	-	-	-	3,845 00	
6.	For repairs of all kinds	-	-	-	2,082 00	
Total					-	<u><u>\$34,615 16</u></u>

Navy-yard at Washington.

No. 1.	For repairing and raising wharves	-	-	-	\$5,250 00	
2.	For addition to quarters of lieutenant, master, and surgeon	-	-	-	2,704 00	
3.	For new forges in proving-machine shop, and conveying blast from anchor shop to forges	-	-	-	9,307 00	
4.	For laboratory buildings	-	-	-	3,790 00	
5.	For steam forge, hammer, and forges in anchor shop	-	-	-	10,470 00	
6.	For building for galvanizing apparatus	-	-	-	2,232 00	
7.	For machinery in engineer's department	-	-	-	6,300 00	
8.	For repairs of all kinds	-	-	-	6,177 00	
Total					-	<u><u>\$46,230 00</u></u>

Navy-yard at Norfolk.

No. 1.	For store-house No. 13, to be used as timber-shed	-	-	-	\$20,000 00	
2.	For continuation of quay walls	-	-	-	25,000 00	
3.	For continuation of walls of timber-dock	-	-	-	20,000 00	
4.	For bridge across timber-dock	-	-	-	8,000 00	
5.	For raising roof of building No. 19	-	-	-	20,000 00	
6.	For completing No. 16, to be used as timber-shed	-	-	-	16,500 00	
7.	For foundation of building-slip	-	-	-	1,800 00	
8.	For repairs of all kinds	-	-	-	13,380 00	
Total					-	<u><u>\$124,680 00</u></u>

Navy-yard at Pensacola.

No. 1.	For store-house E	-	-	-	-	\$4,851	00
2.	For four warrant officers' houses	-	-	-	-	32,000	00
3.	For floating water-tank	-	-	-	-	3,500	00
4.	For outhouse in commandant's yard	-	-	-	-	1,800	00
5.	For furnace in blacksmith's shop	-	-	-	-	786	26
6.	For repairs of all kinds	-	-	-	-	7,200	00
Total						-	-
						\$50,137	26

RECAPITULATION.

Portsmouth, New Hampshire	-	-	-	-	\$44,220	60	
Boston	-	-	-	-	121,201	53	
New York	-	-	-	-	81,118	00	
Philadelphia	-	-	-	-	34,615	16	
Washington	-	-	-	-	46,230	00	
Norfolk	-	-	-	-	124,680	00	
Pensacola	-	-	-	-	50,137	26	
						\$502,202	55

BUREAU OF YARDS AND DOCKS,
November 21, 1843.

L. WARRINGTON,
Chief of Bureau.

Y. & D. No. 5.

Statement showing the several items going to make up the sum of \$469,862
—being the first item in the general estimate from the Bureau of Yards
and Docks, marked Y. & D. A.

Receiving vessels, see Y. & D. No. 1, for detail	-	-	\$156,528
Recruiting stations, see Y. & D. No. 2, for detail	-	-	45,300
Navy-yards, except the civil branch, see Y. & D. No. 3, for detail	-	-	268,034
			\$469,862

For the second item in the general estimate, of \$88,320, see Y. & D.
No. 3, for detail of civil branch.

BUREAU OF YARDS AND DOCKS,
November 21, 1843.

L. WARRINGTON,
Chief of Bureau.

No. 5.

BUREAU OF ORDNANCE AND HYDROGRAPHY,
November 15, 1843.

SIR: In obedience to your order of the 24th ultimo, I have the honor to submit estimates for the support of this bureau for the year commencing 1st of July, 1844, and ending the 30th June, 1845. Accompanying these estimates, is a schedule of the papers composing them.

I have the honor to be, very respectfully, sir, your obedient servant,
 W. M. CRANE.

HON. DAVID HENSHAW,
Secretary of the Navy.

Schedule of the papers composing the estimates of the Bureau of Ordnance and Hydrography, for the year commencing July 1, 1844, and ending June 30, 1845.

- A. Estimate of the expenses of the bureau, for the year ending 30th June, 1845.
- B. Estimate of the pay of officers on ordnance duty, for the year ending 30th June, 1845.
- C. Estimate of ordnance and ordnance stores, small arms, powder tanks, &c., required for the general service of the navy, for the year ending 30th June, 1845.
- D. Estimate of the pay of officers, &c., on hydrographical duty, for the year ending 30th June, 1845.
- E. Estimate of the sums required for the naval service, under the head of "hydrography," for the year ending 30th June, 1845.

A.

Estimate of the sums required for the support of office of Bureau of Ordnance and Hydrography, from July 1, 1844, to June 30, 1845.

For salary of the chief of bureau, per act of August 31, 1842	\$3,500 00
For salary of one clerk, at \$1,200 per annum, per act of August 31, 1842	1,200 00
For salary of one clerk, at \$1,000 per annum, per act of August 31, 1842	1,000 00
For salary of draughtsman, at \$1,000 per annum, per act of August 31, 1842	1,000 00
For salary of messenger, at \$700 per annum, per act of August 31, 1842	700 00

For contingent expenses of said bureau, viz:	
For blank books, binding, and stationery	\$260 00
For miscellaneous items	140 00
For labor	120 00
	<hr/>
	\$520 00
	<hr/>
	<u>\$7,920 00</u>

BUREAU OF ORDNANCE AND HYDROGRAPHY,
November 15, 1843.

W. M. CRANE.

B.

Estimate of pay of officers on ordnance duty, from July 1, 1844, to June 30, 1845.

1 Captain, at \$3,500 per annum	\$3,500 00
2 Commanders, at \$2,100 per annum, each	4,200 00
4 Lieutenants, at \$1,500 per annum, each	6,000 00
	<hr/>
	<u>\$13,700 00</u>

BUREAU OF ORDNANCE AND HYDROGRAPHY,
November 15, 1843.

W. M. CRANE.

C.

Estimate of ordnance, and ordnance stores, small arms, powder tanks, &c., required for the general service of the navy, from July 1, 1844, to June 30, 1845.

100 guns, 32-pounders, of about 42 cwt. each, at \$133 per ton	\$27,930 00
100 guns, 32-pounders, of about 27 cwt. each, for 3d class sloops and brigs, at \$133 per ton	17,955 00
200 gun carriages, with implements complete, at \$150 each	30,000 00
2,000 barrels of powder, at \$17 each	34,000 00
1,500 carbines, Jenks's pattern, at \$15 each	22,500 00
1,200 swords, at \$4 each	4,800 00
1,200 pistols, at \$5 each	6,000 00
2,000 copper powder-flasks, at \$1 each	2,000 00
1,200 boarding-pikes, at \$2 each	2,400 00
100,000 pounds pig-lead, for musket and pistol balls, at \$3 50 per 100 pounds	3,500 00
10,000 pounds sheet-lead, for gun-aprons, at 8 cents per pound	800 00
Copper powder-tanks, for 9 ships of the line	60,600 00
Copper powder-tanks, for 2 razees	7,500 00
Copper powder-tanks, for 8 frigates	29,000 00
Copper powder-tanks, for 5 sloops of war	7,500 00

Copper powder-tanks, for 4 brigs, or schooners	\$1,500 00
3,600 8-inch shells, weighing 262,800 pounds, at 5 cents per pound	13,140 00
6,360 stands of grape-shot, at \$2 50 per stand	15,900 00
360 stands of canister-shot, at \$3 per stand	1,080 00
1,500 9-pounder shot, at 3 cents per pound	405 00
For cannon-locks, flannel for cylinders, battle and maga- zine lanterns, and other articles of ordnance stores	116,375 00
For contingent expenses that may accrue for the follow- ing purposes, viz:	
For drawings and models, for postage paid by officers on ordnance duty; for travelling expenses of officers, in in- specting ordnance and ordnance stores; for hire of agents, and rent of store-houses for ordnance and ordnance stores on the lakes; for experiments in gun, shell, and shot practice; for targets; for transportation of ordnance and ordnance-stores; for advertising in the public news- papers; for repairs of gun-carriages; for a complete set of tools, machinery, and fixtures for a laboratory, capable of making fire-works, &c., for the navy; and for pay of chemist and pyrotechnist	56,000 00
For meeting liabilities on outstanding contracts, made by the late Board of Navy Commissioners, under the act of September 11, 1841, appropriating \$600,000 for ordnance and ordnance stores, (which appropriation has been merged in the general appropriation for "increase, re- pairs," &c.)	160,000 00
	<u>\$620,885 00</u>

BUREAU OF ORDNANCE AND HYDROGRAPHY,
November 15, 1843.

W. M. CRANE.

D.

*Estimate of the pay required for officers, &c., on hydrographical duty,
from July 1, 1844, to June 30, 1845.*

4 Lieutenants, at \$1,500 per annum	\$6,000 00
8 Passed midshipmen, at \$750 per annum	6,000 00
1 Clerk attached to Bureau of Ordnance and Hydrography, per act of Congress of 31st August, 1842	1,000 00
1 Draughtsman	1,000 00
1 Porter	180 00
	<u>\$14,180 00</u>

BUREAU OF ORDNANCE AND HYDROGRAPHY,
November 15, 1843.

W. M. CRANE.

E.

Estimate of the amount required for the naval service, under the head of "hydrography," from July 1, 1844, to June 30, 1845:

For the purchase of nautical books, maps, charts, and instruments	\$28,000 00
For binding and repairing same, including pay of workman	6,000 00
For freight and transportation	1,000 00
For postage, models, drawings, and incidental labor	2,500 00
For travelling expenses	1,200 00
For house-rent	500 00
For fuel, lights, repairs of house, and other contingent expenses	1,800 00
For office books and stationery	1,000 00
For working the lithographic press, including the pay of lithographer, and the cost of stones, ink, and chemicals	1,200 00
	<hr/>
	\$43,200 00

BUREAU OF ORDNANCE AND HYDROGRAPHY,
November 15, 1843.

W. M. CRANE.

No. 6.

Schedule of papers contained in the estimates for the naval service, prepared by the Bureau of Construction, Equipment, and Repairs, for the year ending June 30, 1845.

- A. Estimate of the expenses of the bureau, for the year ending June 30, 1845.
- B. Estimate of the amounts that will be required for the pay of the several squadrons, for the year ending June 30, 1845.
- C. Estimate of the sums required, under the appropriation for the pay, wear and tear, and contingent expenses of the navy, for the several vessels to be kept in commission, for the year ending June 30, 1845.
- D. Estimate of the amount that will be required to keep in commission, for one year ending June 30, 1845, under the appropriation for the pay, wear and tear, and contingent expenses of the navy, for two steamers of the first class, and four smaller ones.
- E. Estimate of the probable consumption of coal, for one year, ending June 30, 1845, for two steamers of the first class, and four smaller ones.
- F. Statement of the names of the vessels in ordinary, or under repair, at the several navy-yards, November 1, 1843.
- G. Statement of the names of the vessels on the stocks, at the several navy-yards, November 1, 1843.
- H. Statement of the materials used and expended for the fiscal year ending June 30, 1843, and balance of stores on hand at that period.

- I. Statement of the labor done at the several yards, for the year ending June 30, 1843.
- J. Estimate of the amount required under "increase, repairs, armament, and equipment of the navy, and wear and tear of vessels in commission," for the year ending June 30, 1845.

A.

Estimate of the sums required for the support of the Bureau of Construction, Equipment, and Repairs, for the year ending June 30, 1845, under the law of August 31, 1842.

For the salary of chief of bureau	-	-	\$3,000 00	
For the salaries of four clerks, draughtsman, and messenger	-	-	6,100 00	
For the pay of a clerk, employed to assist the chief naval constructor from July 8 to November 2, 1843, four months, at \$1,000 per annum			335 00	
				\$9,435 00
<i>Contingent expenses.</i>				
For blank books and stationery	-	-	200 00	
For miscellaneous items	-	-	180 00	
For labor	-	-	120 00	
				500 00
				<u>\$9,935 00</u>

BUREAU OF CONSTRUCTION, &c., &c.,
November 1, 1843.

B.

An estimate of the amount of pay that will be required for the following squadrons of vessels in commission, for the year ending June 30, 1845.

	Number of vessels.	Amount.	Aggregate.
<i>For the Mediterranean.</i>			
1 Commander-in-chief	-	\$4,000	
3 Frigates of the first class	3	277,962	
3 Sloops of the first class	3	138,084	
1 Sloop of the third class	1	34,734	
1 Brig or schooner	1	19,224	
1 Store-ship	1	19,692	
	9		\$493,696
<i>For the coast of Brazil.</i>			
1 Commander-in-chief	-	4,000	
2 Frigates of the first class	2	185,308	

	Number of vessels.	Amount.	Aggregate.
2 Sloops of the first class	2	\$92,056	
1 Sloop of the third class	1	34,734	
1 Brig or schooner	1	19,224	
1 Store ship	1	19,692	
	7		\$355,014
<i>For the Pacific station.</i>			
1 Commander-in-chief	-	4,000	
2 Frigates of the first class	2	185,308	
1 Frigate of the second class	1	76,676	
3 Sloops of the first class	3	138,084	
1 Sloop of the third class	1	34,734	
2 Brigs or schooners	2	38,448	
1 Store-ship	1	19,692	
	10		496,942
<i>For the East India station.</i>			
1 Commander-in-chief	-	4,000	
2 Frigates of the first class	2	185,308	
2 Sloops of the first class	2	92,056	
1 Brig or schooner	1	19,224	
1 Store-ship	1	10,476	
	6		311,064
<i>For the home station.</i>			
1 Commander-in-chief	-	4,000	
2 Frigates of the first class	2	185,308	
1 Frigate of the second class	1	76,676	
4 Sloops of the first class	4	184,112	
2 Sloops of the third class	2	69,468	
2 First class steamers	2	113,134	
5 Brigs or schooners	5	96,120	
For the steamer Princeton	1	42,540	
For the steamer Union	1	42,540	
For the steamer on the lakes	1	42,540	
For the steamer Engineer	1	4,370	
	20		860,808
<i>For the coast of Africa.</i>			
1 Commander-in-chief	-	4,000	
4 Sloops of the first class	4	184,112	
2 Brigs or schooners	2	38,448	
1 Store-ship	1	10,476	
	7		237,036
Total			2,754,560

RECAPITULATION.

For the Mediterranean station	-	-	-	\$493,696
For the Brazil station	-	-	-	355,014
For the Pacific station	-	-	-	496,942
For the East India station	-	-	-	311,064
For the home station	-	-	-	860,808
For the African station	-	-	-	237,036
Aggregate	-	-	-	<u>2,754,560</u>

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

C.

An estimate of the sums required, under the following heads of appropriation, for the following vessels for the year ending June 30, 1845.

Vessels.	Pay.	Wear and tear, including fuel.	Contingent.	Aggregate.
11 Frigates of first class	\$1,019,194	\$330,000	\$74,250	\$1,423,444
2 Frigates of second class	153,352	50,000	11,400	214,752
18 Sloops of first class	828,504	180,000	54,000	1,062,504
5 Sloops of third class	173,670	32,500	11,500	217,670
2 First class steamers	113,134	93,480	11,400	218,014
4 Smaller steamers	131,990	70,880	14,800	217,670
5 Store-vessels	80,028	9,000	3,350	92,378
12 Brigs or schooners	230,688	60,000	12,600	303,288
				<u>3,749,720</u>

RECAPITULATION

11 Frigates of the first class	-	-	-	\$1,423,444
2 Frigates of the second class	-	-	-	214,752
18 Sloops of the first class	-	-	-	1,062,504
5 Sloops of the third class	-	-	-	217,670
2 First class steamers	-	-	-	218,014
4 Smaller steamers	-	-	-	217,670
5 Store-vessels	-	-	-	92,378
12 Brigs or schooners	-	-	-	303,288
				<u>3,749,720</u>

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

D.

An estimate showing the amount of the pay, wear and tear, and contingent expenses, of the following steamers for one year ending June 30, 1845.

Steamers' names.	Pay.	Wear and tear, including 4 months' coal.	Contingent.	Aggregate.
Mississippi - - -	\$70,594	\$48,040	\$5,700	\$124,334
Fulton - - -	42,540	45,160	5,700	93,400
Princeton - - -	42,540	21,520	3,000	67,060
Union - - -	42,540	18,520	2,000	63,060
Lake steamer - - -	42,540	21,520	3,000	67,060
Engineer - - -	4,370	9,320	1,100	14,790
				<u>\$429,704</u>

RECAPITULATION.

Mississippi - - -	-	-	-	-	\$124,334
Fulton - - -	-	-	-	-	93,400
Princeton - - -	-	-	-	-	67,060
Union - - -	-	-	-	-	63,060
Lake steamer - - -	-	-	-	-	67,060
Engineer - - -	-	-	-	-	14,790
					<u>\$429,704</u>

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

E.

An estimate of the consumption of coal, its probable cost per ton, and aggregate cost, for the following steamers; four months, or one hundred and twenty days, being allowed for its consumption.

Steamers.	Tons of coal in 24 hours.	Tons of coal in 4 months.	Cost per ton.	Aggregate cost.
Mississippi - - -	32	3,840	\$6 00	\$23,040
Princeton - - -	16	1,920	6 00	11,520
Fulton - - -	28	3,360	6 00	20,160
Lake steamer - - -	16	1,920	6 00	11,520
Union - - -	16	1,920	6 00	11,520
Engineer - - -	6	720	6 00	4,320
	114	13,680		<u>\$82,080</u>

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

F.

A statement of the names of the vessels in ordinary, or under repair, at the several navy-yards, November 1, 1843.

At Portsmouth, N. H.

The sloop-of-war Portsmouth—just launched.

At Charlestown, Mass.

The ship of the-line Ohio—used as a receiving-ship, and in good condition.

The ship-of-the-line Franklin—ordered from New York to be razed.

The frigates Cumberland and Potomac—nearly ready for sea.

The Mississippi, a first-class steamer—dismantled.

The sloop-of-war Boston—ready for sea.

The sloop-of-war Plymouth—just launched, and fitting for sea.

The sloop-of-war Preble—repairing.

The sloop-of-war Marion—nearly ready for sea.

The brig Consort, (store vessel,)—ready for sea.

At Brooklyn, N. Y.

The ship-of-the-line North Carolina—used as a receiving-ship, and in good order.

The frigate Hudson—unfit for service.

The sloop Yorktown—repairing.

The sloop Dale—in ordinary.

At Philadelphia, Penn.

The Raritan—nearly ready for sea.

The steamer Princeton—just completed.

The receiving-vessel Experiment—unfit for sea service.

At Norfolk, Va.

The ship-of-the-line Pennsylvania—in good order, and used as a receiving-vessel.

The frigate Constitution—repairing.

The Ontario—repairing, and nearly ready for sea.

The new brig Péry—nearly ready for sea.

The new brig Lawrence—nearly ready for sea.

The brig Dolphin—can soon be prepared for sea.

The brig Oregon—in ordinary.

At Washington, D. C.

The steamers Union and Engineer—undergoing repairs.

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

G.

A statement of the names of the vessels on the stocks at the several navy-yards November 1, 1843.

At Portsmouth, N. H.

The Alabama, ship of the line.
The Santee, a first-class frigate.

At Charlestown, Mass.

The Virginia and Vermont, ships of the line.

At Brooklyn, N. Y.

The Sabine, a first-class frigate.
The Albany, a first-class sloop.

At Philadelphia, Penn.

The Germantown, a first-class sloop.

At Washington, D. C.

The St. Mary's, a first-class sloop.
An iron steamer, not yet named.

At Norfolk, Va.

The New York, a ship of the line.
The Jamestown, a first-class sloop.
The frigate St. Lawrence, nearly ready to launch.

In addition to the above, there is being constructed at Erie, Penn., and not yet named, a medium-sized iron steamer.

RECAPITULATION.

Ships of the line	-	-	-	-	-	-	-	4
First-class frigate	-	-	-	-	-	-	-	1
First-class sloops	-	-	-	-	-	-	-	4
Iron steamers	-	-	-	-	-	-	-	2

Total on the stocks November 1, 1843

11

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS, F
November 1, 1843.

H.

A statement of the cost, or estimated value of stores on hand, at the several navy-yards, at the close of the fiscal year, (June 30, 1842,) of articles received and expended from July 1, 1842, to June 30, 1843, and the stores on hand at that period, (June 30, 1843,) under the appropriation for "increase, repairs, armament, and equipment of the navy, and wear and tear of vessels in commission."

Yards.	Value on hand July 1, 1842.	Receipts.	Expenditures.	Value on hand June 30, 1843.
Portsmouth	\$619,778 58	\$52,088 65	\$88,820 90	\$583,046 33
Boston	1,673,664 59	459,349 71	441,877 97	1,691,136 33
New York	1,273,132 67	404,580 54	324,655 01	1,353,058 20
Philadelphia	454,581 87	92,094 79	42,626 23	504,050 43
Washington	536,299 68	234,971 01	232,512 31	638,758 38
Norfolk	1,451,727 31	377,742 40	280,659 97	1,548,809 74
Pensacola.				

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

I.

A statement exhibiting the number of days' labor, and the amounts expended, at the several navy-yards, from the 1st of July, 1842, to the 30th of June, 1843, for the wages of mechanics and laborers, in building, repairing, or equipping vessels of the navy, or in receiving or securing stores and materials for these purposes.

Navy-yards.	Days of labor.	Cost of labor.	Price of labor per day.
Portsmouth, N. H.	16,508 $\frac{1}{4}$	\$22,531 22	\$1 36 $\frac{1}{4}$
Charlestown	74,653 $\frac{1}{2}$	126,791 91	1 69 $\frac{9}{15}$
Brooklyn, N. Y.	87,070 $\frac{1}{2}$	136,061 04	1 56 $\frac{2}{10}$
Philadelphia	21,152	28,325 21	1 33
Washington	63,983	93,179 02 $\frac{1}{2}$	1 45 $\frac{2}{3}$
Norfolk	119,107 $\frac{3}{4}$	175,029 91	1 47
Pensacola	2,063	3,318 04	1 61

BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

J.

A statement of what will be required, under the head of "increase, repairs, armament, and equipment of the navy, and wear and tear of vessels in commission," for the year ending June 30, 1845.

Increase, repair, armament, and equipment of the navy, and wear and tear of vessels in commission	\$1,900,000
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BUREAU OF CONSTRUCTION, EQUIPMENT, AND REPAIRS,
November 1, 1843.

No. 7.

NAVY DEPARTMENT,
Bureau of Provisions and Clothing,
November 14, 1843.

SIR: I have the honor to submit herewith, in triplicate, (marked A and B,) estimates for the naval service, for the year commencing July 1, 1844, and ending June 30, 1845, viz:

- A. Estimate of provisions for the year.
- B. Estimate of the expense of the bureau for the year.

I have the honor to be, very respectfully, sir,

Your obedient servant,

CH: W. GOLDSBOROUGH,
Chief of the Bureau

Hon. DAVID HENSHAW,
Secretary of the Navy.

A.

Estimate of the provisions required for the navy for one year, commencing July 1, 1844, and ending June 30, 1845, showing the cost of each vessel, and of each yard, and the aggregate cost of the number of vessels of each description proposed to be employed, and the general aggregate of vessels and yards for provisions.

Description of vessels, &c.	Number of men each.	Number of rations each.	Cost of rations each.	No. of vessels estimated for.	Aggregate number of men.	Aggregate number of rations.	Aggregate cost of rations.
Frigate, first class - - -	470	171,550	\$34,310	11	5,170	1,887,050	\$337,410
Frigate, second class - - -	370	135,050	27,010	2	740	270,100	54,020
Sloop, first class - - -	195	71,175	14,235	18	3,510	1,281,150	256,230
Sloop, third class - - -	175	63,875	12,775	5	875	319,375	63,875
Brig, or schooner - - -	70	25,550	5,110	12	840	306,600	61,320
Steamer Mississippi - - -	251	91,615	18,323	1	251	91,615	18,323
Steamer Fulton - - -	235	85,775	17,155	1	235	85,775	17,155
Steamer on the lakes - - -	120	43,800	8,760	1	120	43,800	8,760
Steamer, Washington yard - - -	40	14,600	2,920	1	40	14,600	2,920
Steamer Princeton - - -	120	43,800	8,760	1	120	43,800	8,760
Steamer Union - - -	120	43,800	8,760	1	120	43,800	8,760
RECEIVING SHIPS.							
Ohio - - -	143	52,195	10,439	1	143	52,195	10,439
North Carolina - - -	143	52,195	10,439	1	143	52,195	10,439
Pennsylvania - - -	143	52,195	10,439	1	143	52,195	10,439
Ontario - - -	30	10,950	2,190	1	30	10,950	2,190
Experiment - - -	19	6,935	1,387	1	19	6,935	1,387
On-ka-hy-e - - -	19	6,935	1,387	1	19	6,935	1,387
Wave - - -	19	6,935	1,387	1	19	6,935	1,387
NAVY-YARDS.							
Portsmouth, New Hampshire - - -	20	7,300	1,460	-	20	7,300	1,460
Boston, Massachusetts - - -	58	21,170	4,234	-	58	21,170	4,234
Brooklyn, New York - - -	58	21,170	4,234	-	58	21,170	4,234
Philadelphia, Pennsylvania - - -	18	6,570	1,314	-	18	6,570	1,314
Washington, District of Columbia - - -	24	8,760	1,752	-	24	8,760	1,752
Norfolk, Virginia - - -	58	21,170	4,234	-	58	21,170	4,234
Pensacola, Florida - - -	53	19,345	3,869	-	53	19,345	3,869
STORE-SHIPS.							
Eric - - -	65	23,725	4,745	1	65	23,725	4,745
Consort - - -	24	8,760	1,752	1	24	8,760	1,752
Lexington - - -	65	23,725	4,745	1	65	23,725	4,745
Pioneer - - -	24	8,760	1,752	1	24	8,760	1,752
Relief - - -	65	23,725	4,745	1	65	23,725	4,745
					13,069	4,770,185	954,037

13,069 persons, each drawing one ration, make 4,770,185 rations; at 20 cts. each, is \$954,037
 To this must be added the average number of recruits at the different recruiting stations, for relief vessels, and to supply deficiencies in the crews, arising from expirations of service, deaths, and other causes, estimated at 1,000, requiring 385,000 rations, at 20 cents each, is - - - - - 73,000

1,027,037

NAVY DEPARTMENT, *Bureau of Provisions and Clothing*, November 13, 1843.

CH. W. GOLDSBOROUGH,
Chief of the Bureau.

B.

Estimate of the expense of the Bureau of Provisions and Clothing, for the year commencing July 1, 1844, and ending June 30, 1845, agreeably to the 4th section of the act of August 31, 1842, entitled "An act to re-organize the Navy Department of the United States."

For compensation to the chief of the bureau, at \$3,000 per annum	-	-	-	\$3,000 00
For compensation to the chief clerk, at \$1,400	-	-	-	1,400 00
For compensation to a clerk, at \$1,200	-	-	-	1,200 00
For compensation to a clerk, at \$800	-	-	-	800 00
For compensation to a messenger, at \$700	-	-	-	700 00

Contingent.

For blank books, stationery, and binding	-	-	-	450 00
For miscellaneous items	-	-	-	200 00

Submitted.

For two accountants	-	-	-	-
For compensation to an extra clerk, employed from April 7, 1843, to January 1, 1844, at \$2 per day	-	-	-	538 00

In submitting the above estimate for the bureau, I feel it to be my duty, in reference to the public interests, again to suggest the necessity of being allowed two good accountants, in addition to the number of clerks now allowed by law.

The property accounts coming under the cognizance of this bureau are very numerous, and involve a multiplicity of details; all that the present force can do now, is to examine them, enter the results in a blotter, and communicate them to the parties concerned. Surely such entries ought to be made in a journal, and should be transferred thence to a ledger; that at one view the accounts of each person charged with public property might be seen.

All disbursing officers are held to a strict accountability for every species of property committed to their care; but the entries against them, and the credits to which they are entitled for expenditures, can now only be found in blotters scattered over their pages, instead of being, as they surely ought to be, collected and exhibited at one view on the pages of a ledger. We have had the ledger and other necessary books prepared, in readiness to be opened, whenever the requisite force shall be allowed.

On these grounds, I respectfully submit the expediency of two able accountants being allowed, in addition to the present force of this bureau.

I have further to observe, that it was found absolutely necessary, to keep up the records of the office, to employ a temporary clerk. This was done with the approbation of the head of the department. He has rendered faithful service since the 7th of April last, without receiving any compensation; without his aid, our records could not have been kept up. He makes no claim, but justice appears to me to require that he should be compensated; and I submit, in his case, an estimate for \$538, to com-

pensate him for his services, from the 7th of April, 1843, to the 1st of January, 1844.

NAVY DEPARTMENT,
Bureau of Provisions and Clothing,
November 14, 1843.

CH: W. GOLDSBOROUGH,
Chief of the Bureau.

No. 8.

Estimate for surgeons' necessaries and appliances for the sick and hurt of the naval service, including the marine corps, for the year ending June 30, 1845.

11 Frigates, first class, at	-	-	-	\$950	-	\$10,450 00
2 Frigates, second class, at	-	-	-	800	-	1,600 00
18 Sloops of war, first class, at	-	-	-	700	-	12,600 00
5 Sloops of war, third class, at	-	-	-	550	-	2,750 00
6 Steamers, at	-	-	-	500	-	3,000 00
12 Brigs and schooners, at	-	-	-	500	-	6,000 00
5 Store-ships, at	-	-	-	250	-	1,250 00
<hr/>						
59 Vessels	-	-	-	-	-	\$37,650 00
1 Receiving ship (Ohio) at Boston, at	-	-	-	1,000	-	
1 Receiving ship (North Carolina) at New York, at	-	-	-	300	-	
1 Receiving ship (Pennsylvania) at Norfolk, at	-	-	-	500	-	
<hr/>						1,800 00
7 Navy-yards, at \$350 each	-	-	-	2,450	-	
1 Naval station, Charleston, S. C., at	-	-	-	350	-	
<hr/>						2,800 00
<hr/>						\$42,250 00
<hr/>						

NAVY DEPARTMENT, BUREAU OF MEDICINE AND SURGERY,
November 29, 1843.

No. 9.—MARINE CORPS.—Pay Department.

Detailed estimate of pay and subsistence of officers, and pay of non-commissioned officers, musicians, and privates of the marine corps of the United States, from July 1, 1844, to December 31, 1844, inclusive.

RANK AND GRADE.	Number.	PAY.				SUBSISTENCE.				
		Pay per month.	Extra pay pr. month.	Number of servants at \$8 per month.	Number of servants at \$7 per month.	Total.	No. rations per day, at 20 cts. per ration.	No. extra or double rations p. day at 20 c.	Aggregate.	
Brig. gen. commandant	1	\$75	-	-	2	\$534	6	6	\$441 00	\$975 60
Lieutenant colonel	1	60	-	-	2	414	5	5	368 00	812 00
Majors	4	50	-	-	2	1,536	4	4	1,177 60	2,713 60
Adjutant and inspector	1	60	-	2	-	456	4	-	147 20	603 20
Paymaster	1	60	-	2	-	456	4	-	147 20	603 20
Quartermaster	1	60	-	2	-	456	4	-	147 20	603 20
Assistant quartermaster	1	50	-	1	-	318	4	-	147 20	495 20
Captains command'g posts and at sea	8	50	-	-	1	2,736	4	4	2,355 20	5,091 20
Captains	2	40	-	-	1	564	4	-	294 40	858 40
First lieuts. comd'g guards or detachments at sea	4	40	-	-	1	1,128	4	4	1,177 60	2,305 60
First lieutenants	15	30	-	-	1	3,330	4	-	2,208 00	5,538 00
Second lieutenants	20	25	-	-	1	3,840	4	-	2,944 00	6,784 00
Sergeant major	1	17	-	-	-	102	-	-	-	102 00
Quartermaster sergeant	1	17	20	-	-	222	-	-	-	222 00
Drum and fife majors	2	16	-	-	-	192	-	-	-	192 00
Orderly sergeants and sergeants of guards at sea	34	16	-	-	-	3,264	-	-	-	3,264 00
Orderly sergeants employed as clerks to brig. gen. commandant, adjutant & inspector, paymaster and quartermaster	6	16	30	-	-	1,296	-	-	-	1,296 00
Sergeants	40	13	-	-	-	3,120	-	-	-	3,120 00
Corporals	80	9	-	-	-	4,320	-	-	-	4,320 00
Drummers and fifers	60	8	-	-	-	2,880	-	-	-	2,880 00
Privates	1,000	7	-	-	-	42,000	-	-	-	42,000 00
Hospital steward	1	18	-	-	-	108	1	-	36 80	144 80
Clerk to paymaster	1	-	-	-	-	*325	-	-	-	325 00
Additional rations to officers for 5 years' service	-	-	-	-	-	-	165	-	6,072 00	6,072 00
Bounty for re-enlistment	62	-	-	-	-	868	-	-	-	868 00
Two months' pay for unexpired time of former enlistment	62	-	-	-	-	868	at 19 c.	-	-	868 00
Two months' rations for unexpired time of former enlistment	62	-	-	-	-	-	1	-	716 80	716 80
Two months' clothing for unexpired time of former enlistment	62	-	-	-	-	-	-	-	310 00	310 00
Officers' servants, at \$8 50 per month, for clothing and rations	66	-	-	-	-	-	-	-	3,468 00	3,468 00
Undrawn clothing	-	-	-	-	-	-	-	-	3,000 00	3,000 00
						75,393			25,158 80	100,551 80

* This sum of \$325 covers, and is in lieu of pay, clothing, rations, fuel, and quarters, from July 1 to December 31, 1844.

Respectfully submitted.

GEO. W. WALKER, Paymaster Marine Corps.

HEADQUARTERS MARINE CORPS,
Paymaster's Office, September 22, 1843.

No. 9.—MARINE CORPS.—Pay Department.

Detailed estimate of pay and subsistence of officers, and pay of non-commissioned officers, musicians, and privates of the marine corps of the United States, from January 1, 1845, to June 30, 1845, inclusive.

RANK AND GRADE.	Number.	PAY.				SUBSISTENCE.				
		Pay per month.	Extra pay pr. month.	Number of servants at \$8 per month.	Number of servants at \$7 per month.	Total.	No. rations per day, at 20 cts. per ration.	No. extra double rations pr day at 20 cts.	Total.	Aggregate.
Brig. gen. commandant -	1	\$75	-	-	2	\$534	6	6	\$434 40	\$968 40
Lieutenant colonel -	1	60	-	-	2	444	5	5	362 00	806 00
Majors -	4	50	-	-	2	1,536	4	4	1,158 40	2,694 40
Adjutant and inspector -	1	60	-	-	-	456	4	-	144 80	600 80
Paymaster -	1	60	-	-	-	456	4	-	144 80	600 80
Quartermaster -	1	60	-	-	-	456	4	-	144 80	600 80
Assistant quartermaster -	1	50	-	1	-	348	4	-	144 80	492 80
Captains command'g posts and at sea -	8	50	-	-	1	2,736	4	4	2,316 80	5,052 80
Captains -	2	40	-	-	1	564	4	-	289 60	853 60
First lieuts. comd'g guards or detachments at sea -	4	40	-	-	1	1,128	4	4	1,158 40	2,286 40
First lieutenants -	15	30	-	-	1	3,330	4	-	2,172 00	5,502 00
Second lieutenants -	20	25	-	-	1	3,840	4	-	2,896 00	6,736 00
Sergeant major -	1	17	-	-	-	102	-	-	-	102 00
Quartermaster sergeant -	1	17	20	-	-	222	-	-	-	222 00
Drum and fife majors -	2	16	-	-	-	192	-	-	-	192 00
Orderly sergeants and sergeants of guards at sea	34	16	-	-	-	3,264	-	-	-	3,264 00
Orderly sergeants employed as clerks to brig. gen. commandant, adjutant & inspector, paymaster and quartermaster -	6	16	20	-	-	1,296	-	-	-	1,296 00
Sergeants -	40	13	-	-	-	3,120	-	-	-	3,120 00
Corporals -	80	9	-	-	-	4,320	-	-	-	4,320 00
Drummers and fifers -	60	8	-	-	-	2,880	-	-	-	2,880 00
Privates -	1000	7	-	-	-	42,000	-	-	-	42,000 00
Hospital steward -	1	18	-	-	-	108	1	-	36 20	144 20
Clerk to paymaster -	1	-	-	-	-	*325	-	-	-	325 00
Additional rations to officers for 5 years' service	-	-	-	-	-	-	165	-	5,973 00	5,973 00
Bounty for re-enlistment	62	-	-	-	-	868	-	-	-	868 00
Two months' pay for unexpired time of former enlistment	62	-	-	-	-	868	at 19 c.	-	-	868 00
Two months' rations for unexpired time of former enlistment	62	-	-	-	-	-	1	-	716 80	716 80
Two months' clothing for unexpired time of former enlistment	62	-	-	-	-	-	-	-	310 00	310 00
Officers' servants, at \$8 50 per month, for clothing and rations -	68	-	-	-	-	-	-	-	3,468 00	3,468 00
Undrawn clothing -	-	-	-	-	-	-	-	-	3,000 00	3,000 00
						75,393			24,870 80	100,263 80

* This sum of \$325 covers, and is in lieu of pay, clothing, rations, fuel, and quarters, from January 1 to June 30, 1845.

Respectfully submitted.

GEO. W. WALKER, Paymaster Marine Corps.

HEADQUARTERS MARINE CORPS,
Paymaster's Office, September 22, 1843.

No. 9.—MARINE CORPS.—*Quartermaster's Department.*

Estimate of the expenses of the marine corps from July 1 to December 31, 1844.

There will be required for the support of the quartermaster's department of the marine corps, from July 1 to December 31, 1844, in addition to the balances remaining on hand June 30, 1844, the sum of two hundred and forty-five thousand and twenty-nine dollars and eighty cents, viz :

1. For provisions	\$22,685 24
2. For clothing	21,817 50
3. For fuel	8,137 06
4. For military stores, repair of arms, pay of armorers, accoutrements, ordnance stores, flags, drums, fifes, and musical instruments	1,400 00
5. For transportation of officers and troops, and for expenses of recruiting	4,000 00
6. For repair of barracks, and for rent of temporary barracks	3,000 00
7. For contingencies, viz : freight, ferriage-toll, wharfage, and cartage; compensation to judge advocates, and per diem for attending courts-martial and courts of inquiry; per diem to enlisted men on constant labor; house-rent, where no public quarters are assigned; the burial of deceased marines; printing, stationery, forage, postage; the pursuit of deserters; candles and oil, straw, barrack furniture, bed sacks, spades, axes, shovels, picks, carpenters' tools, and the keep of a horse for the messenger	8,990 00
8. For the purchase of a site, and to commence the erection of barracks at Charlestown, Massachusetts	50,000 00
For the purchase of a site, and to commence the erection of barracks at Brooklyn, New York	50,000 00
For the purchase of a site, and to commence the erection of barracks at Gosport, Virginia	50,000 00
To commence the erection of barracks at Pensacola	25,000 00
	<u>245,029 80</u>

Respectfully submitted.

AUG. A. NICHOLSON,
Quartermaster M. C.

No. 9.—ESTIMATE FOR 1844—Continued.

PROVISIONS.—For whom required.	Enlisted men.	Washerwomen.	Matron.	Servants.	Clerks.	Total.	Rations per day at 19 cents.	Rations per day at 20 cents.	Amount.
Non-commissioned officers, musicians, privates, servants, and washerwomen -	514	34	1	-	-	549	1	-	\$19,193 04
Clerks and officers' servants -	-	-	-	68	8	76	-	1	2,796 80
Bounty for re-enlistment, agreeably to act of March 2, 1833—two months' rations	60	-	-	-	-	60	1	-	695 40
									<u>22,685 24</u>

CLOTHING.—For whom required.	Enlisted men.	Servants.	Clerks.	Total.	Amount.
Non-commissioned officers, musicians, and privates, at \$33 per annum -	1,156	-	-	1,156	\$19,074 00
Officers' servants, at \$33 per annum -	-	68	-	68	1,122 00
Paymaster's clerk, at \$33 per annum -	-	-	1	1	16 50
Bounty for re-enlistment, agreeably to act of March 2, 1833—two months' clothing -	60	-	-	60	330 00
150 watch-coats, at \$8 50 each -	-	-	-	-	1,275 00
					<u>21,817 50</u>

No. 9—Continued.

Estimate of the expenses of the marine corps, from January 1 to June 30, 1845—quartermaster's department.

There will be required for the support of the quartermaster's department of the marine corps, from January 1 to June 30, 1845, in addition to the balances remaining on hand December 31, 1844, the sum of sixty-nine thousand six hundred and seventy-one dollars and twenty-seven cents.

1. For provisions	-	-	-	-	-	-	\$22,326	71
2. For clothing	-	-	-	-	-	-	21,317	50
3. For fuel	-	-	-	-	-	-	8,137	06
4. For military stores, repair of arms, pay of armorers, accoutrements, ordnance stores, flags, drums, fifes, and musical instruments	-	-	-	-	-	-	1,400	00
5. For transportation of officers and troops, and for expenses of recruiting	-	-	-	-	-	-	4,000	00
6. For repair of barracks, and for rent of temporary barracks	-	-	-	-	-	-	3,000	00
7. For contingencies, viz: freight, ferriage-toll, wharfage, and cartage; compensation to judge advocates; per diem for attending courts-martial and courts of inquiry; per diem to enlisted men on constant labor; house-rent, where no public quarters are assigned; the burial of deceased marines; printing, stationery, forage, postage; the pursuit of deserters; candles and oil, straw, barrack furniture, bedsacks, spades, axes, shovels, picks, carpenters' tools, and the keep of a horse for the messenger	-	-	-	-	-	-	8,990	00
							<u>69,671</u>	<u>27</u>

Respectfully submitted.

AUG. A. NICHOLSON,
Quartermaster M. C.

No. 9.—ESTIMATE FOR 1845—Continued.

PROVISIONS.—For whom required.	Enlisted men.	Washerwomen.	Matron.	Servants.	Clerks.	Total.	Rat'ns, at 19 cts. per ration.	Rat'ns, at 20 cts. per ration.	Amount.
Non-commissioned officers, musicians, privates, and washerwomen	514	34	1	68	8	549	1	-	\$18,880 11
Clerks and officers' servants	-	-	-	-	-	76	-	1	2,751 20
Bounty for re-enlistment, agreeably to act of March 2, 1833—two months' rations	60	-	-	-	-	60	1	-	695 40
									<u>22,326 71</u>
CLOTHING.—For whom required.	Enlisted men.	Servants.	Clerks.	Total.	Amount.				
Non-commissioned officers, musicians, and privates, at \$33 per annum	1,156	-	-	1,156	\$19,074 00				
Officers' servants, at \$33 per annum	-	68	-	68	1,122 00				
Paymaster's clerk, at \$33 per annum	-	-	1	1	16 50				
Bounty for re-enlistment, agreeably to act of March 2, 1833—two months' clothing	60	-	-	60	330 00				
150 watch-coats, at \$8 50 each	-	-	-	-	1,275 00				
					<u>21,817 50</u>				

PENSION OFFICE,
November 23, 1843.

SIR: In obedience to the 3d section of the act of Congress of the 10th July, 1832, entitled "An act for the regulation of the navy and privateer pension and navy hospital funds," I have the honor to transmit herewith the following lists:

A. A list of persons who are now on the rolls of invalid navy pensioners.

B. A list of widows who have received the benefits of the act of June 30, 1834, and whose pensions have not yet expired.

C. A list of widows who have received the benefits of the act of March 3, 1837, since November 19, 1842.

D. A list of orphans who have received the benefits of the act of March 3, 1837, since November 19, 1842.

Of the appropriations for paying navy pensions due on the 1st of January, 1844, the amount in the treasury will be sufficient to meet all payments due at that time.

There is now in the treasury, for paying invalids, a balance of \$26,052; for paying widows' pensions, under the act of June 30, 1834, \$3,000; and for the satisfaction of claims under the act of March 3, 1837, \$10,393.

On the 7th of September last, I had the honor of transmitting to you an estimate of the amount which will be required to pay navy pensions on the 31st December, 1844, and 30th June, 1845; and on the 11th of that month, I submitted an estimate of the amount which will be necessary to pay those pensions on the 30th June, 1844.

We shall require for the first half-year of 1844, to pay invalid navy pensions, \$20,000; to pay widows, under the act of June 30, 1834, \$3,000; and widows and orphans' claims, under the act of 3d March, 1837, \$8,000. The like sums will be required to pay those classes of pensions on the 31st December, 1844, and an equal amount will be necessary on the 30th June, 1845, as stated in my estimates of September last, already alluded to.

The only stocks now belonging to the navy pension fund are 700 shares of the Bank of Washington, the nominal value of which is \$14,000; and stock of the Union Bank of Georgetown, the nominal value of which is \$8,700. The last-mentioned institution is now closing its concerns; and as soon as collections can be made, the directors will pay from the dividends of its capital stock the amount due to the navy pension fund. The stock of the Bank of Washington cannot now be sold to advantage, and the amount of interest which it yields is so inconsiderable, that I have not introduced it into the present report as available.

I have the honor to be, very respectfully, your obedient servant,

J. L. EDWARDS,
Commissioner of Pensions.

HON. DAVID HENSHAW,
Secretary of the Navy.

A.

Alphabetical list of invalid navy pensioners, complete to November 23, 1843

Names of pensioners.	Rank.	Commencement of pension.	Monthly pension.	Act of Congress under which allowed.
Samuel Abbott - - -	Seaman - - -	Mar. 1, 1815	\$5 00	April 23, 1800.
Zephaniah Allen - - -	Marine - - -	Mar. 1, 1801	3 00	do
George Adams - - -	Quarter gunner - - -	Dec. 31, 1836	5 62½	do
George Alexander - - -	Ordinary seaman - - -	July 19, 1814	8 00	do
William Adams - - -	Seaman - - -	July 25, 1838	3 00	do
Joseph Ashley - - -	Ordinary seaman - - -	Dec. 18, 1835	2 50	do
James Allcorn - - -	Sailingmaster - - -	Jan. 1, 1815	20 00	do
Robert Andrews - - -	Quarter gunner - - -	Aug. 1, 1829	4 50	do
Thomas Austin - - -	Yeoman - - -	Dec. 7, 1838	7 50	do
John Adams - - -	Seaman - - -	Feb. 17, 1836	6 00	do
Alexander Adams - - -	Seaman - - -	Oct. 6, 1812	3 00	do
Gabriel Anderson - - -	Seaman - - -	Aug. 19, 1835	1 50	do
John Anderson - - -	Captain of hold - - -	Oct. 21, 1841	1 87	do
James Allen - - -	Seaman - - -	June 2, 1843	4 00	do
William Allen - - -	Seaman - - -	Jan. 1, 1839	5 00	March 1, 1843.
Nathan Burr - - -	Quarter gunner - - -	Dec. 30, 1814	4 50	April 23, 1800.
Samuel Bryant - - -	Seaman - - -	Mar. 5, 1830	3 00	do
John Browa - - -	Seaman - - -	July 1, 1829	6 00	do
Peter Barnard - - -	Ordinary seaman - - -	Dec. 1, 1814	4 00	do
John Brannau - - -	Seaman - - -	June 28, 1815	5 00	do
John Beatty - - -	Marine - - -	June 1, 1830	4 00	do
Luke Brown - - -	Seaman - - -	July 5, 1834	3 00	do
John Bevins - - -	Quarter gunner - - -	Feb. 21, 1837	7 50	do
Isaac Bassett - - -	Ordinary seaman - - -	May 15, 1814	5 00	do
John Bostrom - - -	Quarter gunner - - -	May 30, 1834	3 00	do
Frederick Boyer - - -	Serg't marine corps - - -	Sep. 5, 1834	2 25	do
James Bird - - -	Seaman - - -	Nov. 7, 1828	6 00	do
John Burnham - - -	Master's mate - - -	Dec. 10, 1813	9 00	do
John Butler - - -	Seaman - - -	Nov. 23, 1815	5 00	do
John Berry - - -	Master-at-arms - - -	Mar. 18, 1835	4 50	do
John Brown, 4th - - -	Seaman - - -	Aug. 31, 1825	3 00	do
Edward Berry - - -	Seaman - - -	July 4, 1837	4 50	do
Lloyd J. Bryan - - -	Passed midshipman - - -	Jan. 22, 1837	3 12½	do
James Bantain - - -	Ordinary seaman - - -	July 5, 1833	4 00	do
James Bell - - -	Seaman - - -	Aug. 23, 1823	6 00	do
Godfrey Bowman - - -	Seaman - - -	Sep. 10, 1813	6 00	do
Jonathan Bulkley - - -	Midshipman - - -	June 17, 1834	9 00	do
Edward Barker - - -	Marine - - -	May 18, 1836	3 50	do
James Barron - - -	Captain - - -	June 22, 1807	25 00	do
John Baxter - - -	Seaman - - -	Feb. 28, 1819	6 00	do
Peter Borge - - -	Captain's steward - - -	May 19, 1834	6 00	do
John Brunley - - -	Seaman - - -	Sep. 1, 1826	6 00	do
William Barker - - -	Marine - - -	July 1, 1802	6 00	do
William Baggs - - -	Marine - - -	Mar. 1, 1814	3 00	do
George Boyle - - -	Seaman - - -	Nov. 21, 1837	4 00	do
John Bruce - - -	Quarter gunner - - -	Nov. 1, 1826	9 00	do
William Bain - - -	Quarter gunner - - -	Oct. 22, 1833	3 50	do
David C. Burwell - - -	Seaman - - -	Apr. 27, 1813	3 00	do
Thomas Bowden - - -	Quartermaster - - -	Dec. 7, 1837	4 00	do
Henry S. Baker - - -	Seaman - - -	Dec. 11, 1833	4 50	do
Robert Berry - - -	Seaman - - -	June 22, 1829	6 00	do
Joseph Barrett - - -	Quarter gunner - - -	Apr. 17, 1813	9 00	do
John Bennett - - -	Seaman - - -	Dec. 14, 1814	6 00	do
James Blake - - -	Ordinary seaman - - -	July 26, 1822	5 00	do
Alfred Baits - - -	Ordinary seaman - - -	Oct. 24, 1833	5 00	do
George Bennett - - -	Ordinary seaman - - -	Sep. 16, 1839	2 50	do
Lemuel Bryant - - -	Ordinary seaman - - -	Aug. 1, 1814	8 00	do
Samuel Bosworth - - -	Seaman - - -	July 3, 1823	6 00	do

A—Continued.

Names of pensioners.	Rank.	Commencement of pension.	Monthly pension.	Act of Congress under which allowed.
James Barker	Quartermaster	Apr. 20, 1836	\$8 00	April 23, 1800.
Junius J. Boyle	Midshipman	Nov. 22, 1823	4 75	do
Thomas Bartlett	Seaman	Nov. 24, 1834	6 00	do
William B. Brown	Gunner	July 4, 1835	2 50	do
Edmund Brett	Marine	June 12, 1815	3 00	do
Robert Butler	Quarter gunner	Apr. 30, 1835	3 75	do
Robert Blair	Seaman	Jan. 1, 1832	6 00	do
Samuel Butler	Quarter gunner	Aug. 28, 1815	8 00	do
Thomas Buchanan	Marine	June 4, 1829	3 00	do
Thomas J. Clark	Carpenter's mate	Apr. 27, 1839	2 37½	do
Horace Carter	Landsman	Feb. 26, 1837	2 00	do
John Clark	Boatswain's mate	Jan. 15, 1838	7 12½	do
Robert Carson	Ordinary seaman	June 26, 1821	5 00	do
Leonard Chase	Ordinary seaman	Aug. 1, 1828	5 00	do
John Clements	Seaman	Dec. 29, 1812	6 00	do
Michael Collins	Seaman	Apr'l 22, 1834	4 50	do
Abraham Caswell	Ordinary seaman	Sept. 30, 1838	2 50	do
David Connor	Lieutenant	May 23, 1815	16 66½	do
Daniel H. Cole	Marine	Dec. 27, 1833	3 00	do
John S. Chauncey	Midshipman	Sept. 30, 1817	4 75	do
William Cook	Cabin cook	June 30, 1836	4 50	do
James Cole	Seaman	May 1, 1823	5 00	do
Horatio N. Crabb	1st lt. marine corps	Jan. 1, 1831	7 50	do
John Conklin	Seaman	Dec. 31, 1837	3 00	do
David Christie	Marine	Jan. 1, 1811	4 00	do
Enos B. Childs	Midshipman	April 2, 1823	9 50	do
Nathaniel Covill	Quarter gunner	Jan. 1, 1832	9 00	do
Nathaniel Chapman	Quarter gunner	June 10, 1815	9 00	do
George Cornell	Carpenter's mate	Sept. 10, 1813	9 00	do
John C. Champlin	Seaman	May 21, 1831	6 00	do
John Clark	Seaman	May 31, 1825	3 00	do
Thomas R. Clark	Ordinary seaman	Feb. 18, 1823	3 75	do
John Cole	Ordinary seaman	Feb. 6, 1832	5 00	do
John Clough	Sailingmaster	June 4, 1829	15 00	do
Edward Cardevan	Seaman	Feb. 28, 1836	3 00	do
Francis Covenhoven	Ordinary seaman	June 22, 1807	3 75	do
Stephen Champlin	Lieutenant	Sept. 3, 1814	10 00	do
R. B. Cunningham	Lieutenant	Mar. 25, 1810	12 50	do
R. C. Cogdell	Passed midshipman	Feb. 24, 1839	6 00	Mar. 3, 1837.
Robert Cathcart	Seaman	Sept. 20, 1816	6 25	April 23, 1800.
John Collins	Seaman	Feb. 9, 1813	6 00	do
George Coomes	Seaman	July 1, 1825	8 00	do
William Cantrill	Marine	April 8, 1830	2 00	do
Edward Carr	Seaman	May 13, 1835	6 00	do
William Clark	Ordinary seaman	Aug. 29, 1842	5 00	do
John Conklin	Ordinary seaman	Aug. 8, 1840	5 00	do
John Carrick	Landsman	Sept. 16, 1842	4 00	do
John Collins	Seaman	Feb. 28, 1839	3 00	do
William Chappell	Boatswain's mate	June 7, 1843	9 50	do
William Dunbar	Seaman	May 31, 1840	4 50	do
Richard Dunn	Seaman	Jan. 1, 1829	6 00	do
James Dixon	Seaman	Nov. 11, 1835	3 00	do
Daniel Dauvers	Marine	Oct. 22, 1835	3 00	do
Marmaduke Dove	Sailingmaster	Apr'l 20, 1833	5 00	do
Stillman Dodge	Ordinary seaman	May 1, 1831	3 33½	do
John Downes	Master commandant	Nov. 28, 1813	10 00	do
John A. Dickason	Carpenter	Aug. 19, 1835	3 32½	do
Timothy Donigan	Ordinary seaman	Apr'l 27, 1837	2 50	do
William Dunn	Gunner	Oct. 8, 1835	10 00	do
Joseph Dalrymple	Seaman	Feb. 24, 1814	4 50	do
Owen Deddoiph	Gunner	June 25, 1814	5 00	do

A—Continued.

Names of pensioners.	Rank.	Commencement of pension.	Monthly pension.	Act of Congress under which allowed.
Matthias Douglass	Seaman	Ap'l 23, 1814	\$10 00	April 23, 1800.
James Dunham	Gunner	July 4, 1828	5 00	do
John Daniels	Quartermaster	Sept. 7, 1816	9 00	do
John Dunn	Marine	July 1, 1818	3 00	do
John Davidson	Lieutenant	Mar. 1, 1801	20 00	do
Samuel Daykin	Marine	Oct. 22, 1834	3 00	do
John Diragen	Seaman	Dec. 22, 1815	5 00	do
James Darley	Ordinary seaman	Mar. 1, 1838	5 00	do
William Darrington	Yeoman	Oct. 18, 1841	3 75	do
Jesse D. Davis	Ordinary seaman	Sept. 2, 1843	5 00	do
Thomas Edwards	Quartermaster	Jan. 1, 1823	9 00	do
Standish F. Edwards	Seaman	May 11, 1837	3 00	do
Francis Elliott	Marine	Ap'l 20, 1838	3 50	do
Ebenezer Evans	Seaman	Mar. 2, 1813	6 00	do
Jesse Elam	Marine	Aug. 1, 1828	6 00	do
William Evans	Marine	May 1, 1827	3 00	do
Abner Enos	Master's mate	June 4, 1830	6 00	do
Gardner Edmonds	Ordinary seaman	June 4, 1814	5 00	do
D. S. Edwards	Surgeon's mate	June 28, 1822	7 50	do
James Eddo	Captain forecastle	Jan. 16, 1835	1 75	do
Alvin Edson	1st lt. marine corps	Feb. 6, 1832	7 50	do
Thomas English	Ordinary seaman	May 14, 1832	5 00	do
George Edwards	Boy, (1st class)	May 21, 1837	4 00	do
Francis H. Ellison	Sailingmaster	Dec. 27, 1830	15 00	do
Henry Edgar	Boatswain's mate	Sept. 19, 1843	9 50	do
Nicholas T. Farrell	Marine	May 10, 1830	3 00	do
William Farrell	Seaman	June 4, 1829	6 00	do
Altred Fisher	Seaman	May 15, 1835	5 00	do
Warren Fogg	Marine	June 1, 1813	87½	do
Jack Flood	Seaman	July 7, 1837	6 00	do
James Ferguson	Sailingmaster	Feb. 19, 1827	10 00	do
Andrew W. Fleming	Seaman	Dec. 20, 1839	4 50	do
Robert Forsaith	Marine	May 18, 1799	3 00	do
William Flagg	Lieutenant	Oct. 31, 1800	18 75	do
John Fallerhee	Landsman	Aug. 1, 1827	4 00	do
George Fitzgerald	Seaman	Oct. 11, 1838	2 00	do
Michael Fitzpatrick	Master-at-arms	June 4, 1829	9 00	do
Moses French	Seaman	Ap'l 14, 1834	6 00	do
Peter Foley	Marine	June 27, 1837	3 50	do
William Fitzgerald	Seaman	Dec. 31, 1836	6 00	do
John Falvey	Seaman	Aug. 29, 1842	3 00	do
Henry Fry	Purser	Jan. 1, 1838	20 00	Aug. 29, 1843.
George Fields	Gunner's mate	Jan. 28, 1841	4 75	April 23, 1800.
L. C. F. Fatio	Midshipman	Mar. 25, 1825	2 37½	do
Benjamin Franklin	Seaman	Jan. 1, 1840	6 00	June 1, 1843.
William M. Goodshall	Seaman	July 15, 1825	6 00	April 23, 1800.
Chester Goodell	Ordinary seaman	Dec. 12, 1834	3 00	do
James Good	Seaman	Jan. 1, 1829	12 00	do
Anthony Gerome	Seaman	Jan. 1, 1832	6 00	do
William Gregory	Marine	May 28, 1830	4 00	do
Samuel H. Green	Quartermaster	Jan. 1, 1819	9 00	do
John Geyer	Seaman	April 6, 1815	6 00	April 2, 1816.
Daniel Gardner	Ordinary seaman	Mar. 28, 1814	2 50	April 23, 1800.
Anthony Gale	Lt. col. marine corps	Jan. 5, 1835	25 00	do
John Grant	Seaman	May 20, 1813	6 00	do
William Gunnison	Ordinary seaman	Nov. 24, 1833	5 00	do
James Glass	Serg't marine corps	Oct. 24, 1836	3 25	do
James Grant	Seaman	April 9, 1829	8 00	do
John Granso	Captain maintop	Mar. 3, 1838	3 50	do
John Grant	Ordinary seaman	July 1, 1831	4 00	do
Peter Green	Seaman	April 3, 1827	5 00	do

A—Continued.

Names of pensioners.	Rank.	Commence- ment of pen- sion.	Monthly pension.	Act of Congress under which allowed.
William Gillen	Seaman	Jan. 1, 1832	\$6 00	April 23, 1800.
Jeremiah Gardner	Ordinary seaman	Jan. 14, 1818	5 00	do
Richard Gilbody	Ordinary seaman	Jan. 14, 1826	4 00	do
Amaziah Goodwin	Seaman	Jan. 1, 1840	6 00	do
Jacob Greaves	Seaman	Jan. 1, 1840	8 00	Aug. 29, 1842.
Joshua H. Goodwin	Seaman	Nov. 13, 1843	6 00	April 23, 1800.
James Hatch	Quarter gunner	July 1, 1814	12 00	do
William Herringbrook	Seaman	Feb. 18, 1814	6 00	do
John Hogan	Seaman	Mar. 4, 1830	3 00	do
John J. Hardy	Seaman	June 25, 1813	6 00	do
John Harris	Quarter gunner	Aug. 1, 1827	4 50	do
John Hussey	Ordinary seaman	Jan. 1, 1832	5 00	do
Simon Hillman	Ordinary seaman	July 3, 1815	4 00	do
Horatio N. Harrison	Passed midshipman	July 15, 1838	6 50	do
Elijah L. Harris	Marine	Sept. 25, 1833	3 00	do
John Hamilton	Seaman	May 1, 1827	6 00	do
John Hoxie	Seaman	Aug. 15, 1800	8 50	do
Samuel F. Holbrook	Carpenter	Sept. 30, 1820	5 00	do
Isaac Harding	Seaman	May 9, 1834	5 00	do
Garret Henricks	Seaman	Aug. 9, 1834	6 00	do
Uriah Hanscomb	Ordinary seaman	Oct. 16, 1799	6 00	do
Samuel Hambleton	Purser	Sept. 10, 1813	20 00	do
John Hall	Quartermaster	Oct. 20, 1830	4 50	do
Roswell Hale	Ordinary seaman	Dec. 25, 1819	5 00	do
Thomas Huntley	Seaman	Aug. 31, 1837	3 00	do
Ephraim Hatheway	Landsman	June 15, 1838	4 00	do
J. L. C. Hardy	Midshipman	July 31, 1821	4 75	do
Alexander Hamilton	Boatswain's mate	May 31, 1838	7 12½	do
William Hamilton	Seaman	July 1, 1829	6 00	do
Joshua Howell	Ordinary seaman	June 30, 1836	5 00	do
William L. Hudson	Sailingmaster	July 6, 1817	15 00	do
Elias Hughes	Ordinary seaman	Aug. 28, 1837	5 00	do
Robert Hazlett	Musician m. corps	Dec. 12, 1836	2 00	do
Henry Hampton	Ordinary seaman	June 14, 1840	1 66½	do
John Hamilton	Seaman	Oct. 5, 1837	6 00	do
William Hampson	Marine	Aug. 29, 1842	2 62½	do
Martin Higgins	Coal heaver	Dec. 14, 1842	2 50	do
Michael Johnson	Seaman	Jan. 31, 1812	3 00	do
David Jenkins	Seaman	Aug. 1, 1828	6 00	do
Richworth Jordan	Seaman	Mar. 15, 1836	6 00	do
Gilbert Jones	Ordinary seaman	June 30, 1815	2 50	do
James Jackson	Seaman	Mar. 4, 1816	5 00	do
Thomas Ap C. Jones	Lieutenant	Dec. 14, 1814	25 00	do
William Jones	Boy	Aug. 21, 1814	2 25	do
Thomas Irwin	Private m. corps	Jan. 31, 1837	1 75	March 3, 1837.
Lewis Jones	Seaman	Oct. 27, 1835	6 00	April 23, 1800.
John Joyce	Ordinary seaman	Aug. 30, 1839	3 75	do
Ichabod Jackson	Seaman	Jan. 25, 1837	4 50	do
John Johnson	Seaman	Mar. 28, 1814	6 00	do
Joseph Jackson	Cook	Oct. 29, 1839	4 50	do
Joseph Jennet	Captain of mizen top	June 12, 1838	2 33½	do
Thomas Jackson, 2d	Quartermaster	June 1, 1813	9 00	do
Sylvester Jameson	Seaman	Aug. 1, 1828	6 00	do
Edward Ingram	Boatswain	April 1, 1831	5 00	do
Jamc. Jeffers	Ordinary seaman	Dec. 7, 1805	6 00	do
Henry Jackson	Captain of foretop	Sept. 20, 1836	3 75	do
Henry Irwin	Marine	Feb. 20, 1837	1 75	do
John Jones	Seaman	Sept. 16, 1842	3 00	do
Nicholas Kline	Sergeant m. corps	Jan. 1, 1832	5 00	do
William C. Keene	Master-at-arms	Sept. 10, 1813	9 00	do
William Kinnear	Marine	April 3, 1834	3 00	do

A—Continued.

Names of pensioners.	Rank.	Commencement of pension.	Monthly pension.	Act of Congress under which allowed.
Daniel Kleiss	Ordinary seaman	May 6, 1829	\$5 00	April 23, 1800.
Andrew Key	Boatswain's mate	July 9, 1839	19 00	April 16, 1816.
James Kelly	Marine	Aug. 24, 1814	4 50	April 23, 1800.
John Kiggan	Ordinary seaman	Ap'l 30, 1838	2 50	do
Henry Keeling	Gunner	Aug. 30, 1834	5 00	do
John Kenny	Quarter gunner	July 1, 1825	4 50	do
George Kensingher	Master-at-arms	May 22, 1819	9 00	do
Thomas Kelly	Seaman	Ap'l 25, 1815	4 00	do
Joseph Kelly	Seaman	Oct. 31, 1835	4 50	do
John Keegan	Quartermaster	Mar. 27, 1830	6 00	do
John F. Kidder	An apprentice	Mar. 1, 1842	1 75	do
John Luscomb	Ordinary seaman	Jan. 15, 1838	2 50	do
John Long	Seaman	July 27, 1837	6 00	do
Edward Libbis	Ordinary seaman	June 11, 1836	1 66½	do
John Lewis	Boatswain's mate	Jan. 1, 1832	9 00	do
John Lovely	Seaman	Ap'l 23, 1835	6 00	do
Henry P. Leslie	Carpenter	Feb. 18, 1840	5 00	March 3, 1837.
James Lloyd	Marine	April 5, 1834	2 00	April 23, 1800.
Isaac Langley	Ordinary seaman	Dec. 1, 1814	5 00	do
John Lloyd	Marine	June 8, 1819	3 00	do
John Lagrange	Seaman	Nov. 30, 1834	4 50	do
Robert Lewis	Steward	Sept. 5, 1830	6 75	do
Richard Lee	Quartermaster	July 1, 1820	6 00	do
Timothy Lane	Cook	Mar. 25, 1816	8 00	do
Peter Lewis	Ordinary seaman	July 30, 1837	5 00	do
John Leonard	Seaman	July 1, 1829	9 00	do
John G. Lanman	Quarter gunner	June 20, 1836	7 50	do
John Lynch	Quartermaster	Dec. 7, 1838	9 00	do
Nathaniel Lord	Quartermaster	Feb. 26, 1843	4 50	do
Edward Martin	Seaman	Mar. 3, 1837	3 00	do
Jacob Marks	Marine	June 30, 1810	43½	do
Richard Merchant	Marine	June 30, 1824	1 75	do
Charles Morris	Lieutenant	Aug. 19, 1812	12 50	do
James Mount	Serg't marine corps	June 7, 1837	4 87½	do
James Moses	Purser's steward	Apr. 23, 1816	9 00	do
James McDonald	Corp'l marine corps	Dec 31, 1814	2 25	do
Joseph Marks	Seaman	May 1, 1827	6 00	do
Edward Myers	Seaman	May 27, 1837	3 00	do
Thomas Murdoch	Seaman	June 30, 1836	6 00	do
William McKeever	Ordinary seaman	Oct. 14, 1835	2 50	do
John Munroe	Seaman	July 22, 1835	4 50	do
John Meigs	Seaman	July 1, 1819	10 00	do
John McGarr	Steward	Nov. 11, 1832	4 50	do
J. T. McLaughlin	Passed midshipman	Feb. 8, 1837	9 37½	do
M. F. Maury	Lieutenant	Oct. 18, 1839	12 50	do
Archibald Moffatt	Ordinary seaman	June 1, 1832	5 00	do
Enoch M. Miley	Quarter gunner	Mar. 28, 1814	8 00	do
Peter McMahan	Ordinary seaman	Nov. 2, 1807	6 00	do
Samuel Meade	Seaman	Oct. 19, 1837	3 00	do
Andrew Mattison	Seaman	Sep. 10, 1813	5 00	do
Patrick Murphy	Ordinary seaman	Oct. 19, 1836	5 00	do
Giles Manchester	Ordinary seaman	May 1, 1827	5 00	do
James Merrill	Ordinary seaman	Oct. 23, 1819	5 00	do
Colton Murray	Boatswain's mate	Aug. 1, 1831	9 00	do
John McMahan	Ordinary seaman	July 9, 1836	5 00	do
George Marshall	Gunner	Mar. 31, 1825	2 50	do
William P. McArthur	Midshipman	Jan. 15, 1836	1 75	do
Matthias McGill	Seaman	May 28, 1814	8 00	do
Samuel Miller	Capt. marine corps	Apr. 24, 1814	10 00	do
John Marston, jr.	Mid-shipman	Dec. 31, 1814	4 75	do
William Mervine	Midshipman	Nov. 28, 1812	3 16½	do

A—Continued.

Names of pensioners.	Rank.	Commence- ment of pen- sion.	Monthly pension.	Act of Congress under which allowed.
John Myrick	Gunner	Aug. 7, 1837	\$5 00	April 23, 1800.
John Metzger	Seaman	Feb. 26, 1839	3 00	do
John Moore	Seaman	Jan. 9, 1838	4 50	do
James McDonald	Seaman	Dec. 31, 1826	3 00	do
John Malprine	Landsman	Feb. 1, 1839	3 00	do
Patrick McLaughlin	Ordinary seaman	Nov. 1, 1815	5 00	do
John Myers	Seaman	Nov. 1, 1828	6 00	do
Samuel McIsaacs	Boy	July 30, 1814	5 00	do
William Moran	Seaman	Dec. 5, 1815	6 00	do
Enos Marks	Ordinary seaman	Feb. 16, 1815	5 00	do
John H. McNeale	Seaman	June 1, 1832	3 00	do
John Mitchell	Quartermaster	June 11, 1832	8 00	do
Mathew McMurray	Seaman	Sep. 1, 1827	6 00	do
Thomas Miller	Seaman	Oct. 23, 1829	4 10	do
John Moore	Seaman	Dec. 4, 1817	6 00	do
William Middleton	Seaman	Jan. 1, 1837	8 00	do
Henry J. Mercier	Ordinary seaman	May 20, 1837	1 25	do
John McLaughlin	Quarter gunner	Oct. 3, 1842	7 50	do
Joseph Millet	Boatswain's mate	July 20, 1843	4 75	do
James Nickerson	Seaman	Jan. 15, 1815	6 00	do
James Nagle	Seaman	June 30, 1834	5 00	do
John F. Noyer	Marine	July 1, 1826	5 00	do
John Nugent	Seaman	Aug. 14, 1813	6 00	do
Francis B. Nichols	Midshipman	June 1, 1818	4 75	do
William Napier	Corp'l marine corps	July 1, 1826	4 00	do
David Newbury	Ordinary seaman	Apr. 15, 1836	2 00	do
William Newton	Ordinary seaman	Sep. 11, 1814	1 25	do
John Neilson	Quarter gunner	Jan. 1, 1832	9 00	do
John Nicholson	Ordinary seaman	Aug. 30, 1842	5 00	do
Josiah Needham	Quarter gunner	May 4, 1842	7 50	do
Arael Owens	Seaman	Jan. 22, 1836	3 00	do
Samuel Odiorne, jr.	Seaman	Dec. 24, 1825	6 00	do
Isaac Omans	Seaman	June 26, 1821	6 00	do
Patrick O'Malley	Ordinary seaman	Oct. 10, 1842	2 50	do
Charles T. Platt	Lieutenant	June 4, 1829	25 00	do
Stephen Phyfer	Ordinary seaman	April 4, 1825	7 00	do
Peter Pierson	Seaman	Mar. 20, 1836	6 00	do
James Perry	Ship's corporal	Sep. 1, 1827	9 00	do
Thomas Paine	Sailingmaster	Feb. 7, 1834	20 00	do
William Perry	Seaman	April 9, 1825	6 00	do
Charles Pasture	Seaman	Mar. 4, 1815	5 00	do
Neal Patterson	Seaman	July 1, 1820	8 00	do
John Peterson	Ordinary seaman	Sept. 10, 1813	5 00	do
John Percival	Lieutenant	Dec. 22, 1825	12 50	do
N. A. Prentiss	Sailingmaster	Nov. 30, 1814	10 00	do
Edward Power	Ordinary seaman	May 27, 1834	5 00	do
Henry Powell	Seaman	Feb. 10, 1840	3 00	do
Ushur Parsons	Surgeon	Feb. 7, 1816	12 50	do
Thomas B. Parsons	Seaman	Sept. 1, 1808	9 00	do
Payne Perry	Seaman	April 6, 1815	6 00	April 2, 1816.
Joseph Peck	Seaman	Oct. 19, 1836	2 50	April 23, 1800.
Charles Perry	Seaman	Nov. 30, 1837	4 50	do
John Price	Seaman	May 11, 1835	6 00	do
John Piner	Ordinary seaman	Nov. 6, 1828	5 00	do
Daniel Peck	Seaman	July 1, 1829	6 00	do
John Price	Seaman	Aug. 30, 1842	6 00	do
Richard Parker	Seaman	July 31, 1842	6 00	do
David Quill	Quartermaster	Feb. 20, 1815	5 00	do
John Randall	Marine	Sept. 2, 1805	3 00	do
John Roberts	Seaman	June 1, 1813	3 00	do
John Robinson	Master's mate	Jan. 31, 1814	1 25	do

A—Continued.

Names of pensioners.	Rank.	Commencement of pension.	Monthly pension.	Act of Congress under which allowed.
James Reid	Ordinary seaman	Jan. 14, 1838	\$5 00	April 23, 1800.
Thomas Richie	Seaman	May 14, 1839	3 00	do
James Roberts	Quarter gunner	Ap'l 14, 1832	1 87½	do
Jasper Read	Seaman	Mar. 28, 1814	3 00	do
John Rogers	Captain's yeoman	May 18, 1832	4 50	do
John Romeo	Ordinary seaman	April 6, 1838	5 00	do
John Revel	Ordinary seaman	Aug. 20, 1833	2 50	do
Burnet Ragan	Landsman	June 6, 1838	2 00	do
James Rankin	Seaman	June 8, 1839	4 50	do
James Rogers	Sailingmaster	July 27, 1815	15 00	do
James C. Reed	Ordinary seaman	May 5, 1837	2 50	do
Alonzo Rowley	Ordinary seaman	Mar. 15, 1836	5 00	do
Edward Ross	Boy	Jan. 1, 1827	3 00	do
Edward Rowland	Ordinary seaman	Sept. 11, 1814	5 00	do
Rosnanti Rhodes	Seaman	Dec. 5, 1815	6 00	do
Samuel Riddle	Seaman	June 30, 1836	3 00	do
Thomas Riley	Gunner	June 23, 1837	7 50	do
B. S. Randolph	Midshipman	Oct. 7, 1815	6 00	do
Daniel Riggs	Ordinary seaman	May 18, 1836	3 75	do
Samuel Rose	Seaman	May 24, 1836	4 50	do
Nathan Rolfe	Seaman	Dec. 14, 1813	6 00	do
John Rice	Seaman	July 19, 1830	6 00	do
William Robinson	Marine	June 15, 1817	6 00	do
John Riley	Marine	July 1, 1831	3 00	do
John Richards	Quarter gunner	Oct. 20, 1829	9 00	do
Benjamin Richardson	Master's mate	Oct. 8, 1829	10 00	do
John Richmond	Marine	July 31, 1816	1 75	do
Stephen B. Roath	Gunner's mate	Aug. 22, 1842	4 75	do
Robert Ramsay	Steward	Dec. 30, 1837	5 00	March 3, 1843.
Lewis Reineburg	Private marine corps	Jan. 28, 1843	1 75	April 23, 1800.
Nathaniel Staples	Seaman	May 1, 1833	3 00	do
Patrick Scanton	Ordinary seaman	Jan. 1, 1811	6 00	do
Benjamin Stevens	Master's mate	June 27, 1814	10 00	do
Stephen Simpson	Marine	Nov. 16, 1835	3 50	do
William Smith	Ordinary seaman	June 1, 1827	5 00	do
Eli Stewart	Master's mate	May 20, 1814	7 00	do
Harmon Sutton	Seaman	July 1, 1829	3 00	do
Thomas J. Still	Marine	Jan. 1, 1832	3 00	do
Charles Sheeter	Boatswain's mate	Nov. 1, 1832	6 00	do
Thomas Smith	Seaman	April 5, 1839	2 00	do
Joseph Smith	Boatswain	Dec. 31, 1837	5 00	do
Alfred Smith	Ordinary seaman	Sept. 27, 1837	2 50	do
John Stevens	Quartermaster	May 21, 1831	4 50	do
Jeremiah Sullivan	Seaman	June 30, 1837	6 00	do
Thomas Smith	Boatswain	April 6, 1815	20 00	April 2, 1816.
Aaron Smith	Ordinary seaman	Aug. 1, 1828	2 50	April 23, 1800.
Joseph Smith	Lieutenant	Sept. 11, 1811	18 75	do
John Smith, 5th	Seaman	May 5, 1837	3 00	do
William Stockdale	Marine	July 26, 1816	6 00	do
William Smart	Ordinary seaman	July 1, 1829	5 00	do
John Smith	Seaman	Aug. 31, 1834	3 00	do
James Smith	Ordinary seaman	Dec. 2, 1837	2 50	do
James Shanklin	Ordinary seaman	June 1, 1813	2 50	do
Robert Spedden	Lieutenant	Dec. 5, 1823	25 00	do
William Smith	Serg't marine corps	Jan. 7, 1841	6 50	March 3, 1837
John Strain	Seaman	Feb. 28, 1837	4 50	April 23, 1800.
James Spiers	Ordinary seaman	May 5, 1837	3 75	do
John Smith	Boatswain	Dec. 31, 1827	5 00	do
John Scriver	Seaman	Ap'l 10, 1811	5 00	do
John Schröder	Seaman	June 29, 1819	6 00	do
Horace B. Sawyer	Midshipman	June 3, 1813	4 75	do

A—Continued.

Names of pensioners.	Rank.	Commence- ment of pen- sion.	Monthly pension.	Act of Congress under which allowed.
Otis Sage	Corporal m. corps	Nov. 16, 1835	\$4 50	April 23, 1800.
Samuel Spooner	Ordinary seaman	Oct. 15, 1838	1 66½	do
Jonas A. Stone	Seaman	April 4, 1829	9 00	do
Alexander Smith	Seaman	July 26, 1836	3 00	do
Thomas Stallings	Ordinary seaman	Nov. 7, 1826	2 50	do
Leonard Stevens	Serg't marine corps	Jan. 27, 1837	3 25	do
R. S. Suter	Midshipman	Dec. 16, 1814	9 50	do
James Stockwell	Seaman	Feb. 28, 1829	4 50	do
Charles Smith, 3d	Seaman	Aug. 19, 1841	3 00	do
Frederick Smith	Captain forecastle	June 14, 1842	7 00	do
Russell Smith	Carpenter's mate	Aug. 2, 1842	7 1¼	do
Charles Stanton	Boatswain's mate	Feb. 19, 1838	9 50	do
Samuel Stevens	Seaman	Aug. 15, 1843	1 50	do
Nehemiah Shockley	Seaman	Sept. 18, 1843	6 00	do
Thomas Smith	Ordinary seaman	Jan. 23, 1843	3 33½	do
James Seawell	Seaman	Aug. 31, 1843	4 50	do
Isaac Swann	Ordinary seaman	Aug. 12, 1843	2 50	do
Lewis Thomas	Marine	May 11, 1839	2 66½	do
John Tarlton	Ordinary seaman	May 8, 1833	4 00	do
James Turnbull	Ordinary seaman	April 6, 1815	5 00	April 2, 1816.
Owen Taylor	Seaman	Aug. 19, 1812	6 00	April 23, 1800.
B. R. Tinslar	Surgeon	Jan. 31, 1830	6 50	do
Thomas Tindley	Seaman	April 6, 1815	3 00	April 2, 1816.
John Taylor	Quartermaster	May 31, 1839	8 00	April 23, 1800.
Jacob Tonkins	Marine	May 31, 1840	3 50	do
Samuel Taylor	Ordinary seaman	Nov. 30, 1839	5 00	March 3, 1837.
George Tunstall	Seaman	Ap'l 14, 1836	3 00	April 23, 1800.
Isaac Thomas	Marine	Oct. 30, 1826	6 00	do
William Thompson	Ordinary seaman	May 29, 1826	7 50	do
James Thompson	Seaman	June 30, 1836	6 00	do
Julius Terry	Ordinary seaman	Aug. 31, 1812	5 00	do
James Tull	Serg't marine corps	June 29, 1816	5 00	do
Henry Townsend	Ordinary seaman	Dec. 18, 1814	5 00	do
David Thomas	Marine	Jan. 1, 1806	3 00	do
Philip Tulley	Seaman	Jan. 10, 1816	6 00	do
Peter Tooley	Marine	Jan. 27, 1837	3 50	do
George Turry	Boatswain	Aug. 9, 1839	3 33½	do
Benjamin Underwood	Ordinary seaman	Ap'l 24, 1815	5 00	do
George Upham	Marine	July 12, 1816	3 00	do
Gabriel Van Horn	Marine	Dec. 23, 1837	3 50	do
William Venable	Boatswain's mate	May 2, 1834	4 75	do
John S. Vincent	Captain of the hold	April 5, 1843	1 75	do
William Whitney	Seaman	Nov. 1, 1818	8 00	do
John A. Webster	Sailingmaster	Sept. 13, 1814	20 00	June 30, 1834.
Peter Woodbury	Quartermaster	Mar. 18, 1813	9 00	April 23, 1800.
Robert Woods	Seaman	Dec. 31, 1836	3 00	do
Charles W. White	Ordinary seaman	Feb. 17, 1837	5 00	do
Reuben Wright	Carpenter's mate	Aug. 30, 1814	8 00	do
Caleb J. Wiggins	Ordinary seaman	May 23, 1814	3 00	do
Henry R. Williams	Yeoman	Aug. 2, 1840	7 50	March 3, 1837.
John Williams	Seaman	July 1, 1818	6 00	April 23, 1800.
Joseph Ward	Seaman	July 1, 1818	6 00	do
William Williams	Marine	July 9, 1838	3 50	do
William S. Welsh	Seaman	May 1, 1827	6 00	do
James Wilson	Quartermaster	July 1, 1817	9 00	do
James B. Wright	Quartermaster	May 1, 1831	9 00	do
Charles Weeks	Seaman	Feb. 23, 1830	6 00	do
Thomas Williamson	Surgeon	Dec. 31, 1835	15 00	do
Francis Williams	Landswman	Jan. 15, 1838	1 00	do
Job G. Williams	1st lt. marine corps	June 30, 1828	7 50	do
George Wiley	Seaman	Mar. 1, 1837	3 00	do

A—Continued.

Names of pensioners.	Rank.	Commence- ment of pen- sion.	Monthly pension.	Act of Congress under which allowed.
John Waters - -	Seaman - -	Sept. 30, 1838	\$3 00	April 23, 1800.
James Woodhouse - -	Seaman - -	Mar. 17, 1836	6 00	do
George Wilson - -	Seaman - -	Mar. 23, 1838	6 00	do
John Williams - -	1st captain foretop -	Sept. 9, 1836	1 87½	do
Jack Williams - -	Seaman - -	Mar. 23, 1828	6 00	do
Daniel Watson - -	Carpenter's mate -	May 10, 1838	4 75	do
Charles Wheeler - -	Seaman - -	Oct. 3, 1836	3 00	do
Henry Ward - -	Quarter gunner -	May 27, 1833	9 00	do
Henry Walpole - -	Seaman - -	Oct. 2, 1820	3 00	do
Henry Williams - -	Ordinary seaman -	Mar. 3, 1838	5 00	do
Solomon White - -	Seaman - -	Feb. 29, 1812	4 00	do
Thomas Ward - -	Captain foretop -	Jan. 14, 1835	7 50	do
William Ward - -	Seaman - -	Aug. 1, 1832	6 00	do
William Welsh - -	Ordinary seaman -	Jan. 1, 1822	2 50	do
Samuel E. Watson -	Major marine corps	Feb. 4, 1837	18 75	do
John Wright, 2d - -	Ordinary seaman -	May 1, 1822	5 00	do
William A. Weaver -	Midshipman - -	June 1, 1813	9 50	do
James Williamson -	Armorer - -	Sept. 1, 1831	6 00	do
John Wright - -	Quarter gunner -	Nov. 7, 1836	5 62½	do
John Waters - -	Ordinary seaman -	Ap'l 24, 1824	5 00	do
James Wines - -	Seaman - -	Mar. 28, 1824	6 00	do
William Wicks - -	Ordinary seaman -	Aug. 4, 1813	4 00	do
Elias Wiley - -	Ordinary seaman -	Sept. 10, 1813	2 50	do
William Wright - -	Seaman - -	Aug. 31, 1832	3 00	do
Thomas Welsh - -	Quarter gunner -	Feb. 26, 1820	12 00	do
Samuel Williams - -	Quartermaster -	Sept. 1, 1827	6 00	do
William Wagner - -	Quarter gunner -	Dec. 3, 1819	9 00	do
Daniel Whitehorn -	Quarter gunner -	June 21, 1842	7 50	do
John Williams - -	Ordinary seaman -	May 1, 1843	2 50	do
Joshua Wymen - -	Seaman - -	Nov. 23, 1842	6 00	do
John Wolfenden - -	Seaman - -	Mar. 3, 1843	8 5½	do
John J. Young - -	Lieutenant - -	May 21, 1829	25 00	do
Richard G. York - -	Seaman - -	Jan. 13, 1839	3 00	do

The number of invalid pensioners is 518. Annual sum to pay them, \$35,973 36.

B.

Alphabetical list of widows who are now on the pension list under the act of June 30, 1834, granting five years' pensions, complete to November 23, 1843.

Names of the widows.	Names of their husbands.	Their husbands' rank.	Monthly allowance.	Time up to which they are to be paid, &c.
Ashton, Louisa -	Gurdon C. -	Lieutenant -	\$25 00	Commencing Oct. 11, 1840, and terminating Oct. 11, 1845.
Arlette, Mary E. -	John C. -	Marine -	3 50	Commencing March 5, 1842, and terminating March 5, 1847.
Bacon, Sarah A. -	Frederick A. -	Passed midshipman -	12 50	Commencing May 1, 1839, and terminating May 1, 1844.
Barry, Mary -	Thomas -	Master -	20 00	Commencing June 28, 1842, and terminating June 28, 1847.
Boyd, Mary A. -	Thomas J. -	Surgeon -	30 00	Commencing March 26, 1839, and terminating March 26, 1844.
Boerum, Emily -	William -	Commander -	30 00	Commencing Nov. 2, 1842, and terminating Nov. 2, 1847.
Cope, Isabella -	John -	Seaman -	6 00	Commencing Jan. 31, 1840, and terminating Jan. 31, 1845.
Corlette, Susan -	Edward -	Ordinary seaman -	5 00	Commencing July 5, 1840, and terminating July 5, 1845.
Crawford, Mary -	David R. -	Passed midshipman -	25 00	Commencing July 26, 1841, and terminating July 26, 1846; increased from \$12 20 per month, under the act of March 1, 1843.
Claxton, Rodolphine -	Alexander -	Captain -	50 00	Commencing March 7, 1841, and terminating March 7, 1846.
Carpenter, Ann -	Jacob -	Gunner -	10 00	Commencing March 8, 1842, and terminating March 8, 1847.
Chauncey, Catharine -	Isaac -	Captain -	50 00	Commencing Jan. 28, 1840, and terminating Jan. 28, 1845.
Cox, Emma M. -	John W. -	Lieutenant -	25 00	Commencing Dec. 7, 1842, and terminating Dec. 7, 1847.
Eaton, Susan -	David -	Gunner -	10 00	Commencing Aug. 15, 1840, and terminating Aug. 15, 1845.
Hart, Sarah Ann -	Benjamin F. -	Purser -	20 00	Commencing Nov. 2, 1842, and terminating Nov. 2, 1847.
Hull, Ann M. H. -	Isaac -	Captain -	50 00	Commencing Feb. 13, 1843, and terminating Feb. 13, 1848.
Hofford, Mary -	Laurence -	Quartermaster -	8 00	Commencing Nov. 16, 1842, and terminating Nov. 16, 1847.
Lyne, Elizabeth B. -	William B. -	Lieutenant -	25 00	Commencing May 1, 1841, and terminating May 1, 1846.
Mack, Catharine -	Jeremiah -	Gunner -	10 00	Commencing Dec. 17, 1842, and terminating Dec. 17, 1847.
McCawley, Mary -	James -	Captain marine corps -	20 00	Commencing Feb. 22, 1839, and terminating Feb. 22, 1844.
Pease, Almira -	Levi -	Carpenter -	10 00	Commencing May 12, 1842, and terminating May 12, 1847.
Patterson, George Ann -	Daniel T. -	Captain -	50 00	Commencing Aug. 25, 1839, and terminating Aug. 25, 1844.
Palmer, Ann -	Morris -	Orderly serg't m. corps -	8 00	Commencing Oct. 13, 1841, and terminating Oct. 13, 1846.
Pinkham, Lydia H. -	Alexander B. -	Commander -	30 00	Commencing July 23, 1843, and terminating July 23, 1848.
Rodgers, Minerva -	John -	Captain -	50 00	Commencing Aug. 1, 1838, and terminating Aug. 1, 1843.
Ridgeway, Maria -	Ebenezer -	Commander -	30 00	Commencing Nov. 1, 1841, and terminating Nov. 1, 1846.
Singer, Rebecca S. -	John -	Landsman -	4 00	Commencing July 15, 1839, and terminating July 15, 1844.
Sproston, Jane -	George S. -	Surgeon -	35 00	Commencing Jan. 21, 1842, and terminating Jan. 21, 1847.
Snowman, Julia -	Samuel -	Seaman -	6 00	Commencing Oct. 5, 1841, and terminating Oct. 5, 1846.

Stevens, Eliza	-	Thomas Holdup	-	Captain	-	50 00	Commencing Jan. 21, 1841, and terminating Jan. 21, 1846.
Sivers, Ann Maria	-	Stephen D.	-	Land-man	-	4 00	Commencing April 22, 1839, and terminating April 22, 1844.
Thomas, Margaret M.	-	Richard	-	Carpenter	-	10 00	Commencing Dec. 20, 1842, and terminating Dec. 20, 1847.
Underwood, Sarah J.	-	Joseph A.	-	Lieutenant	-	25 00	Commencing July 24, 1840, and terminating July 24, 1845.
Voorhees, Harriet	-	Ralph	-	Commander	-	30 00	Commencing July 27, 1842, and terminating July 27, 1847.
Wainwright, Maria M.	-	Robert D.	-	Lieut. colonel m. corps	-	30 00	Commencing Oct. 6, 1841, and terminating Oct. 6, 1846.
Wilson, Mary Jane	-	Enoch	-	Armorer	-	9 00	Commencing July 27, 1841, and terminating July 27, 1846.
Williams, Elizabeth	-	William F.	-	Seaman	-	6 00	Commencing Aug. 17, 1843, and terminating Aug. 17, 1847.
Wood, Elizabeth	-	Owen	-	Marine	-	3 50	Commencing May 9, 1843, and terminating May 9, 1848.
White, Mary Ann	-	Samuel	-	Carpenter	-	10 00	Commencing Aug. 20, 1843, and terminating Aug. 20, 1848.
Woolsey, Elen	-	William G.	-	Lieutenant	-	25 00	Commencing Oct. 20, 1840, and terminating Oct. 20, 1845.
Weed, Julia*	-	Elijah J.	-	Captain marines	-	20 00	Commencing March 5, 1838, and terminating March 5, 1843.

Number of widows, 41; annual amount of their pensions, \$10,566.

* The pensions of Mrs. Minerva Rogers and Mrs. Julia Weed have expired. The sums they received under the act of March 3, 1837, were deducted from their pensions under the act of June 30, 1834.

C.

Alphabetical list of widows who have received the benefits of the act of March 3, 1837, since November, 1842.

Names of the widows.	Names of their husbands.	Their husbands' rank.	Monthly allowance.	Time up to which they were paid.
Burns, Elizabeth -	William W. -	Sergeant of marines -	\$6 50	Commencing October 13, 1833, and ending August 31, 1842.
Dougherty, Rebecca -	James -	Seaman -	5 00	Commencing May 17, 1811, and ending August 31, 1842.
Goddard, Grace H -	John -	Surgeon -	25 60	Commencing August 31, 1802, and ending August 31, 1842.

D.

Alphabetical list of orphans who have received the benefits of the act of March 3, 1837, since November, 1842.

Names of the orphans.	Names of their fathers.	Their fathers' rank.	Monthly allowance.	Time up to which they were paid.
John Dever -	William -	Landsman -	\$1 00	Commenced March 1, 1839, and ended August 31, 1842.
Mary Noble and Philemon Noble.	Philemon -	Seaman -	3 00	Commenced July 28, 1800. Mary Noble paid to June 25, 1820; Philemon Noble paid to August 23, 1821.
Thomas O'Sullivan -	John -	Purser's steward -	9 00	Commenced October 30, 1831, and ended August 31, 1842.
Joseph Stanwood and William Stanwood.	William -	Seaman -	4 00	Commenced August 31, 1800. Joseph Stanwood paid to February 22, 1820; and William Stanwood paid to May 22, 1821.

Estimate of the amounts which will be required to pay navy pensions July 1, 1844; December 31, 1844; and June 30, 1845.

	July 1, 1844.	Dec. 31, 1844.	June 30, 1845.
Invalid pensions - - -	\$20,000	\$20,000	\$20,000
Widows' pensions, under the act of June 30, 1834 - - -	3,000	3,000	3,000
Widows and orphans' pensions, un- der the act of March 3, 1837 -	8,000	8,000	8,000
	\$31,000	\$31,000	\$31,000

No. 11.

REPORT OF THE FOURTH AUDITOR.

TREASURY DEPARTMENT,
Fourth Auditor's Office, November 18, 1843.

SIR: I have the honor to transmit herewith a statement, showing the receipts and expenditures of the navy pension fund, for the year ending September 30, 1843, and its condition at that date.

I have the honor to be, sir, very respectfully, your obedient servant,
A. O. DAYTON.

HON. DAVID HENSHAW,
Secretary of the Navy.

A statement showing the receipts and expenditures of the navy pension fund for the year ending September 30, 1843, and its condition at that date.

	I. Balance in the treasury to the credit of the fund, October 1, 1842 -	\$39,823 37
	II. Amount received into the treasury since October 1, 1842, from whom, and on what account, viz:	
1842.		
Mar. 3	Thomas Williamson, for overpayment of pension - - \$115 00	
3	Stephen Champlin, do do - - 46 00	
3	John A. Dickason, do do - - 35 75	
3	Thomas Ryley, do do - - 78 75	
May 15	John Downes, do do - - 95 40	
Sept. 20	William M. Caldwell, do do - - 91 25	
		462 15
	Appropriation per act of March 3, 1843, viz:	
	For pay of invalids - - - - 40,000 00	
	For widows' pensions under act of June 30, 1834 - - - 6,000 00	
	For claims of widows and orphans under act of March 3, 1837 16,000 00	
		62,000 00
	Total - - - - -	102,285 52
	III. Expenditures on account of the fund, per settlements made from October 1, 1842, to September 30, 1843, viz:	
1842.		
Oct. 25	President Commercial Bank, Cincinnati, for payment of pensions - - 36 00	
25	Wm. C. Anderson, St. Louis, Missouri, do do - - 150 00	
25	President Louisville Savings Institution, do do - - 519 00	
Nov. 16	Thomas Hayes, Philadelphia, do do - - 5,041 86	
Dec. 12	Jacob Alrichs, Newcastle, Delaware, do do - - 144 00	
12	President Arcade Bank, Providence, R. I., do do - - 1,230 00	
27	George Loyall, Norfolk, Virginia, do do - - 4,359 00	
31	Robert C. Wetmore, New York, do do - - 11,544 89	
1843.		
Jan. 9	Frances A. Cooper, (formerly F. A. Davis,) for pension due her - - 45 33	
21	President Exchange Bank, Pittsburg, for payment of pensions - - 36 00	
21	William Mackay, Savannah, for payment to pensioners - - 150 00	
21	Thomas Hayes, Philadelphia, do do - - 200 10	
23	Timothy Upham, Portsmouth, N. H., do do - - 941 20	
24	Pres't Farmers and Mechanics' Bank, Hartford, do do - - 1,263 00	
24	President Marine Bank, Portland, do do - - 1,578 10	
Feb. 2	President Louisville Savings Institution, Ky., do do - - 494 33	
2	George Loyall, Norfolk, do do - - 1,617 00	
2	R. C. Wetmore, New York, do do - - 3,342 66	
2	J. Vincent Browne, Boston, do do - - 6,238 24	
15	President Trenton Bank, New Jersey, do do - - 450 00	
15	Thomas G. Morgan, New Orleans, do do - - 618 00	
Mar. 6	Obadiah Johnson, for pension due him - - - - 159 17	
31	William B. Scott, Washington, D. C., for payment to pensioners - - 9,913 54	
Apr. 14	President Exchange Bank, Pittsburg, do do - - 108 00	
14	B. D. Heriot, Charleston, S. C., do do - - 1,318 33	
14	Thomas Hayes, Philadelphia, do do - - 2,419 50	
May 9	George Loyall, Norfolk, do do - - 1,989 13	
12	Pres't Farmers and Mechanics' Bank, Hartford, do do - - 511 00	
June 12	Jacob Alrichs, Newcastle, Delaware, do do - - 64 00	
12	President Louisville Savings Institution, Ky., do do - - 259 00	
12	President Arcade Bank, Providence, R. I., do do - - 971 50	
12	President Marine Bank, Portland, do do - - 690 20	
17	R. C. Wetmore, New York, do do - - 4,974 28	
July 13	Timothy Upham, Portsmouth, N. H., do do - - 509 70	
13	William Mackay, Savannah, do do - - 50 00	
13	Thomas Hayes, Philadelphia, do do - - 300 83	
18	R. C. Wetmore, New York, do do - - 793 33	
21	Samuel McClellan, Baltimore, do do - - 2,467 17	
21	President Commercial Bank, Cincinnati do do - - 72 00	
21	President Exchange Bank, Pittsburg, do do - - 90 00	
Aug. 4	George Loyall, Norfolk, do do - - 225 08	
11	President Trenton Bank, New Jersey, do do - - 150 00	
	Total - - - - -	68,034 47

STATEMENT—Continued.

1843.	IV. Balances due by pension agents, per last settlement of their accounts, and including advances to October 1, 1843:				
	Jacob Alrichs, Newcastle, Delaware	-	-	-	824 00
	William C. Anderson, St. Louis, Missouri	-	-	-	256 00
	J. Vincent Browne, Boston	-	-	-	8,827 78
	Thomas Hayes, Philadelphia	-	-	-	3,666 13
	B. D. Heriot, Charleston, South Carolina	-	-	-	1,453 67
	George Loyall, Norfolk	-	-	-	935 36
	Samuel McClellan, Baltimore	-	-	-	2,276 04
	Thomas G. Morgan, New Orleans	-	-	-	1,692 75
	William B. Scott, Washington, District of Columbia	-	-	-	11,962 74
	R. C. Wetmore, New York	-	-	-	6,561 09
	Timothy Upham, Portsmouth, New Hampshire	-	-	-	714 60
	President Farmers and Mechanics' Bank, Hartford, Connecticut	-	-	-	607 00
	President Louisville Savings Institution, Kentucky	-	-	-	433 67
	President Marine Bank, Portland	-	-	-	813 00
	President Arcade Bank, Providence, Rhode Island	-	-	-	707 50
	President Exchange Bank, Pittsburg	-	-	-	174 00
	Michael W. Ash, (late agent,) Philadelphia	-	-	-	915 95
	Leonard Jarvis, (late agent,) Boston	-	-	-	543 93
	Elias Kane, (late agent,) Washington, District of Columbia	-	-	-	1,119 50
John N. Todd, (late agent,) Boston	-	-	-	91 92	
	Total	-	-	-	43,776 63
	V. Balance in the treasury to the credit of the fund, October 1, 1843				40,171 72

RECAPITULATION.

I. Balance in the treasury to the credit of the fund, October 1, 1842	-	-	\$39,823 37
II. Amount received at the treasury since October 1, 1842, refunded	\$462 15		
Appropriated by act March 3, 1843	62,000 00		
			62,462 15
			102,285 52
III. Expenditures on account of the fund, per settlements from October 1, 1842, to September 30, 1843, inclusive	-	-	68,034 47
IV. Balances due by pension agents, per last settlement of their accounts, and including advances to October 1, 1843	-	\$43,776 63	
V. Balance in the treasury to the credit of the fund, October 1, 1843	40,171 72		
Total amount to the credit of the fund, October 1, 1843	-	-	83,948 35

TREASURY DEPARTMENT,

Fourth Auditor's Office, November 18, 1843.

A. O. DAYTON.

List of deaths in the navy, as ascertained at the department, since December 1, 1842.

Name and rank.	Date.	Place.
<i>Captains.</i>		
Isaac Hull, -	Feb. 13, 1843	Philadelphia.
Samuel Woodhouse -	July 16, 1843	Chester county, Penn.
<i>Commanders.</i>		
William Boerum -	Nov. 2, 1842	Drowned at the mouth of Lorango river.
Edward S. Johnson -	June 23, 1843	Newport, R. I.
A. J. Dallas -	July 12, 1843	Troy, New York.
Alex. B. Pinkham -	July 23, 1843	Portsmouth, Va.
<i>Lieutenants.</i>		
A. E. Downes -	March, 1843	Lost in the Grampus.
Jno. B. Cutting -	May 20, 1843	At Rio de Janeiro; on board frigate Columbia.
Alberto Griffith -	Dec. 20, 1843	Kingston, Jamaica.
Geo. M. McCreery -	March, 1843	Lost in the Grampus.
William S. Swann -	March, 1843	Lost in the Grampus.
Levin Handy -	September, 1842	On board the Constella- tion, East Indies.
Geo. J. Wyche -	Oct. 25, 1843	At Boston.
Hunn Gansevoort -	March, 1843	Lost in the Grampus.
<i>Assistant Surgeons.</i>		
Richard W. Leacock -	March 31, 1843	On board the Somers, N. York.
Edwin H. Conway -	March, 1843	Lost in the Grampus.
Nathan H. T. Moore -	April 25, 1843	Baltimore.
<i>Pursers.</i>		
Benjamin F. Hart -	Nov. 2, 1842	Drowned at the mouth of Lorango river.
Jas. S. Thatcher -	March, 1843	Lost in the Grampus.
Fred. Stevens -	July 14, 1843	Nassau, N. P., attached to the brig Boxer.
<i>Passed Midshipmen.</i>		
Isaac S. K. You -	March, 1843	Lost in the Grampus.
Jno. Brooks -	June 4, 1843	Boston.

No. 12—Continued.

Name and rank.	Date.	Place.
<i>Midshipmen.</i>		
William B. Brown	August 11, 1843	Gloucester county, Va.
Edward N. Beadel	March, 1843	Lost in the Grampus.
Andrew J. Lewis	March, 1843	Lost in the Grampus.
Jas. B. McCarthy	August 11, 1842	At sea.
Geo. A. Minshall	March, 1843	Lost in the Grampus.
<i>Masters.</i>		
Francis H. Ellison	May 18, 1843	Navy-yard, New York.
Nahum Warren	June 10, 1843	Navy-yard, Pensacola.
James Tewksbury	Sept. 1, 1843	Philadelphia.
<i>Boatswain.</i>		
John Smith	Oct. 7, 1843	Brooklyn, New York.
<i>Carpenters.</i>		
Alonzo Jones	Jan. 18, 1843	Boston.
Samuel White	August 20, 1843	On board the store-ship Lexington, at sea.
Levi Pease	May 12, 1842	New York.
Jas. Leckie	Nov. 12, 1842	On board the Vandalia, at sea.
<i>Naval storekeeper.</i>		
Cary Selden	May 26, 1843	Washington city.

No. 13.

List of resignations in the navy since December 1, 1842.

Name and rank.	Date of acceptance.
<i>Lieutenant.</i>	
James T. Homans	May 15, 1843.
<i>Passed Assistant Surgeons.</i>	
George W. Peete	May 29, 1843.
Charles Wm. Tait	November 17, 1843.

No. 13—Continued.

Name and rank.	Date of acceptance.
<i>Assistant Surgeons.</i>	
John A. Guion - - -	January 30, 1843.
Wm. G. G. Willson - - -	September 9, 1843.
<i>Purser.</i>	
Thomas Gadsden - - -	March 31, 1843.
<i>Chaplain.</i>	
Samuel T. Gillet - - -	January 19, 1843.
<i>Passed Midshipman.</i>	
William S. Ringgold - - -	April 25, 1843.
<i>Midshipmen.</i>	
William T. Burwell - - -	May 20, 1843.
Gaspard Du Buys - - -	April 6, 1843.
Walter P. Harrison - - -	June 10, 1843.
Joseph B. Kinkead - - -	August 26, 1843.
E. Randolph Neilson - - -	October 11, 1843.
Henry G. C. Shaw - - -	May 18, 1843.
Benjamin F. Van Hook - - -	June 15, 1843.
<i>Professor of Mathematics.</i>	
Joel Grant - - -	October 2, 1843.
<i>Boatswains.</i>	
William C. Clark - - -	February 18, 1843.
Edward Lyons - - -	August 30, 1843.
Amos Colson - - -	February 23, 1843.
<i>Gunners.</i>	
Henry Welton - - -	February 23, 1843.
James C. Davis - - -	February 11, 1843.
Paul W. Richardson - - -	August 26, 1843.
<i>Sailmakers.</i>	
James P. Wood - - -	April 28, 1843.
Charles Frost - - -	February 10, 1843.
MARINE CORPS.	
<i>Second Lieutenant.</i>	
John J. Berret - - -	April 4, 1843.

No. 14.

List of dismissals from the navy since December 1, 1842.

Name and rank.	Date of dismissal.
<i>Lieutenants.</i>	
Edward M. Vail - - -	July 23, 1843.
Addison R. Taliaferro - - -	October 18, 1843, (cashiered.)
<i>Midshipmen.</i>	
McKenzie Beverley - - -	Stricken from the list March 17, 1843.
Samuel A. Miller - - -	June 30, 1843.
<i>Professor of Mathematics.</i>	
James Major - - -	October 27, 1843.
<i>Boatswain.</i>	
Ezra Chamberlain - - -	January 26, 1843.
<i>Naval Storekeepers.</i>	
R. C. Yates - - -	April 13, 1843.
Paul R. George - - -	July 18, 1843.
Paul Willard - - -	July 25, 1843.

No. 15.

REPORT OF LIEUT. W. W. HUNTER.

UNITED STATES STEAMER UNION,
Anchorage near Washington, February 20, 1843.

SIR: I have the honor to report to you the arrival at this place of the United States steamer Union, under my command. Time under way, from the Norfolk navy-yard to her present position, 29 hours; during which time, she towed a heavy laden schooner for 15 miles, and steamed under half a head of steam for more than 8 hours, besides an absolute loss of 5 hours' time in passing through 40 miles of ice.

The alterations you were pleased to authorize in her propellers, spars, and sails, have been completed. The alteration of the former consisted in a reduction of the surface of each paddle, which has increased the vessel's speed two miles per hour. The change made in the latter, (viz: the augmentation of spars and sails,) has been so arranged as to render the vessel more efficient under canvass *alone*, and has in no wise taken from her efficiency under steam *alone*; which has been proven on her trip hither, by using her steam-power without the sails, and by using her sails without the steam-power, as well as by the use, at the same time, of both steam-power and canvass. Her velocity by steam-power, uninfluenced by wind or tide, is 10 miles per hour; and it has been determined by her time under way between places whose distance has been established by measurement, viz: Norfolk and Fort Monroe, (on Old Point Comfort,) known to be 15 miles apart—a distance, the following extract from the log of this vessel will show that she has steamed, uninfluenced by wind or tide, in 1 hour 30 minutes precisely.

Extract from the log.

"From 4 to 8, a light breeze from the southward and westward, and clear weather. At 5h. 45m. fired up. At 7h. 5m., a. m., abreast of Town point, Norfolk, and standing down the river on the last of the ebb; 8h. 35m. between Fort Calhoun and Fort Monroe—having made the distance, estimated at 15 miles, in 1 hour and 30 minutes precisely; weather calm, and sea smooth. 'Slack-water' when passing Town point.

"H. H. BELL."

I would respectfully express the hope that you may be pleased to notice, under your own eye, the result in operation of the plan of a steamer exhibited in this vessel, which has so grown under your patronage and support as to present the proof of self-evident success. An increase of speed may yet be obtained by a further reduction of the paddle.

I have the honor to be, with great respect, your obedient servant,

WM. W. HUNTER,

Lieutenant Commanding.

HON. ABEL P. UPSHUR, *Secretary of the Navy.*

I have carefully noticed the operation of the steamer Union, on my passage in her from Norfolk to this place; during which, under steam alone,

without the aid of sails or tide, she was impelled 10 miles per hour. Under canvass alone, she is quite as efficient as a sailing vessel. Her performance, in every respect, authorizes the expression of my opinion that the plan upon which she is propelled, her construction and arrangements, are triumphantly successful.

FRANCIS GRICE,
United States Naval Constructor.

U. S. STEAMER UNION,
Naval Anchorage off Norfolk, Va., April 23, 1843.

SIR: I have the honor to report to you that this vessel, in obedience to your order, left Washington yesterday at sunrise, and steamed against a strong wind and tide directly ahead, the entire distance, excepting four miles, when I caused sail to be made, and hauled on a wind for the purpose of trying her sailing qualities with one of the fastest pilot-boats out of Hampton. I have the satisfaction to state that the Union, under canvass close-hauled on a wind, beat the pilot-boat one mile in four; and, although she is now light, I find her the stiffest, and, I think, the fastest and most weatherly vessel I have ever sailed in.

I have the honor to be, with great respect, your obedient servant,
WM. W. HUNTER,
Lieutenant Commanding.

Hon. A. P. UPSHUR, *Secretary of the Navy.*

U. S. STEAMER UNION,
Boston Harbor, May 20, 1843.

SIR: I have the honor to report to you, that, in obedience to orders from the honorable Navy Department, the U. S. steamer Union, under my command, left Cape Henry at noon on the 16th instant, and is now anchored in this harbor, having anchored last night at Holmes's Hole. This morning we resumed our course for Boston, under steam, and, when clear of Nantucket shoals, made sail. In passing Cape Cod, the vessel ran under canvass, with low steam, twelve and a half miles per hour. Steam-power has been used during the entire passage, a great part of which has been performed against a strong adverse wind and head sea—directly against which she has made seven miles an hour. Unaided by wind, under steam alone, she has performed nine and a half miles an hour.

I have the satisfaction to report to you that this vessel under canvass is fast, weatherly, buoyant, stiff, and dry; and that her performance as a sea steamer has fully confirmed my belief of the peculiar fitness of vessels on this plan for the naval service and merchant marine. Her consumption of fuel has not been over twelve tons for each 24 hours of continuous steaming.

So soon as the object expressed in my sailing orders shall be accomplished in this port, I will proceed southerly along the coast, touching first at New York, &c.

I have the honor to be, with great respect, your obedient servant,
WILLIAM W. HUNTER,
Lieutenant Commanding.

A. THOMAS SMITH, Esq.,
Acting Secretary of the Navy, Washington city.

Extract from the log-book of the U. S. steamer Union, of May 15, 1843, exhibiting her performance from Norfolk to Hunger, under the eye of the Hon. Abel P. Upshur, Secretary of the Navy, then on board.

“ At 8h. 45m. a. m., got under way, the jack at the main. At meridian, standing up the Chesapeake bay for the residence of Mr. Upshur, under steam and sail. Fired off three loaded shells, in the presence of the Secretary of the Navy, to try their fuses and their gauges; wind light from the southward and eastward, and pleasant. At 1h. 30m. p. m., took in all sail; and at 1h. 45m. anchored to the southward of Hunger creek, eastern shore of Virginia, about 1½ mile from the shore, in 3½ fathoms water. Furled sails. From the necessity to keep the channel around the Horse-shoe shoal, made the distance run from Norfolk 62 miles, against a strong flood-tide; giving an average speed under sail and steam, aided by a moderate breeze, of 12½ miles per hour.”

Very respectfully, your obedient servant,

WILLIAM W. HUNTER.

U. S. STEAMER UNION,
Philadelphia, June 10, 1843.

SIR: I have the honor to report to you that the United States steamer Union, under my command, left the harbor of New York, near noon on the 8th instant, and is now (meridian) anchored off the navy-yard at this place.

Deeming it important to ascertain the extent of steam-power available in this vessel, by the use of anthracite coal alone, I left the anchorage at New York, with a fresh wind directly adverse to our course to the Delaware bay; and it continued so, with a head sea, to that place. I found it impossible to keep up more than half a proper working pressure of steam with anthracite alone.

In further compliance with orders from the honorable Navy Department, steam-power was dispensed with, and the vessel tried under canvass alone, close hauled, to ascertain her stability, with but twenty tons of coal on board; and I have the satisfaction to inform you that she is sufficiently stiff to bear a press of canvass with empty coal-bunkers. The experiments alluded to caused a diminution of speed under steam, and a deviation from her course under canvass; but they were necessary, to enable me, in compliance with my instructions, to make to you a full report of the performance of this vessel; which I will be enabled to do on our arrival at Norfolk, Virginia, for which place I purpose sailing so soon as the object of your orders to me shall be accomplished at this place.

I have the honor to be, very respectfully, your obedient servant,

WM. W. HUNTER,
Lieutenant Commanding.

A. THOMAS SMITH, Esq.,
Acting Secretary of the Navy, Washington.

U. S. STEAMER UNION,
Norfolk, June 24, 1843.

SIR: I have the honor to announce to you my arrival at this anchorage, and the satisfaction to inform you that the performance of this vessel, under steam or canvass, is highly satisfactory; and that the important modifications introduced into her form and construction are justified by the results.

Since my departure from the Chesapeake, I have derived much valuable information from the experiments I have made.

I shall avail myself of the earliest opportunity to confer with you more at length on this subject.

I have the honor to be, very respectfully, your obedient servant,

WM. W. HUNTER,
Lieutenant Commanding.

Hon. A. P. UPSHUR,
Secretary of the Navy.

UNITED STATES STEAMER UNION,
Norfolk, June 24, 1843.

SIR: I have the honor to report to you that this vessel was got under way, on the forenoon of the 21st instant, from the anchorage off the navy-yard, Philadelphia; and, after proceeding up and down the Delaware river abreast of that city, steamed down the river to sea—from Newcastle to Cape Henlopen, against a strong head swell and wind. Passed Cape Henlopen at 7 a. m. on the 22d, wind ahead; blew off the steam, and made sail on a wind, beating to the southward along the coast, for the purpose of obeying more fully your instructions requiring me to report the sailing qualities of this vessel under all circumstances. I have the satisfaction to report to you that, in a light breeze, and also in a fresh breeze, she has been tacked without starting a sheet. We beat nearly the whole distance from Cape Henlopen to Cape Henry, against light winds directly adverse to our course, and passed Cape Henry at 8 a. m. on the 24th, and arrived at this anchorage at 4 p. m.

In my former reports, and under your own eye, you have been made acquainted with the practical proofs of the fitness of vessels on this plan for naval purposes. In the assurance that the principle of propulsion, model, rig, arrangement of battery, &c., as exhibited in this vessel, is fully established by practice, and is perfectly adapted to the end I have desired to effect, viz: the efficient application of canvass and steam-power to our national vessels, and each moving power itself effective without hindrance to the other, I would respectfully state to you that the experience consequent upon the performance of this vessel at sea will enable me, by a more perfect mechanical arrangement, not only to obtain, in the construction of other vessels on this plan, a much higher rate of speed, but also to amend the trifling defect necessarily attendant on an experiment so novel; and will much advance the efficiency of this vessel, the boilers of which are found not suitably adapted to the sea, from the smallness of their flues, and want of capacity in their fire and steam room; yet, notwithstanding this defect, by which one-third the power of

the machine has not been available, the success of the experiment, under this great disadvantage, induces me very respectfully to ask that you will authorize the application of more suitable boilers to this vessel. Those now on board will be found well adapted to the use of wood as fuel, and fresh water, on shore; and as they are admirably constructed for strength, and of the best material, they would be found well adapted to replace those now at the dry-dock engine at Norfolk, the boilers of which it will be found necessary to replace at no distant day; and their little consumption of fuel, compared with those now used at the dry-dock engine at Norfolk, will, in fact, conduce to economy. In this suggestion I am entirely supported by the advice of Mr. William P. Williamson, chief engineer of this vessel, who has for several years been the engineer in charge of the engine at the dry-dock, Norfolk, Virginia.

In a few days I hope to have the honor personally to express to you more in detail my reasons for the suggestions herein submitted.

Consumption of anthracite coal for each twenty-four hours' steaming, ten tons; and when bituminous coal is used, twelve and a half tons are consumed in twenty-four hours.

I have the honor to be, very respectfully, your obedient servant,
WILLIAM W. HUNTER,
Lieutenant Commanding.

To the Hon. A. P. UPSHUR,
Secretary of the Navy.

NAVY DEPARTMENT, July 7, 1843.

SIR: Your letter of the 1st July is received, and I take great pleasure in complying with the request it contains.

I have watched with very great interest the progress of the steamer *Union*, from my first entrance on the duties of the Navy Department to her late cruise. I have long been convinced that the application, in the ordinary mode, of steam-power to vessels of war, would not answer any very useful purpose; and that the maritime nations of the world would find it necessary to abandon such vessels, except as the mere auxiliaries of fleets.

These two propositions appear to me to be unquestionable: 1st. That *cruising* by steam-power is too expensive, and subject to too many difficulties, to be generally adopted. 2d. That a vessel of war propelled by steam alone, or by steam as her principal moving power, must have her machinery and her paddle-wheels below water-mark. Hence no steamer can be regarded as suited in all respects to purposes of war, unless she can cruise under canvass, or unless her machinery and paddle-wheels are out of the reach of an enemy's shot. To attain these objects, and at the same time to combine with them the other properties of a vessel of war, has been the great desideratum; and it has hitherto baffled the skill of all maritime nations of the world.

How far you have been successful in overcoming these difficulties seems to be fully decided in the public judgment. In that judgment I concur. I have minutely examined the structure and arrangements of the *Union*, and have had an opportunity to form a correct opinion of her properties as a sailing and steaming vessel. Of all these I feel authorized to speak in terms of high approbation.

The internal arrangements of the Union are as good as they could possibly be, in any arrangement of the same space. Indeed, I have been surprised to see how much she can stow; while, at the same time, she affords the best accommodations to her officers and crew. This is a great advantage in a cruising vessel, and I think that you have attained it in a much greater degree than is usual in vessels of the same class.

The rig of the Union is unexceptionable—simple, cheap, light, easily managed, safe, and readily replaced. I do not see in what respect it can be improved.

The battery is so contrived as to render it effective in every direction. Hence her guns are almost as effective, in a contest with a single ship, as twice the number would be, mounted in the ordinary way.

A great number of arrangements, less conspicuous, but yet contributing much to convenience and facility in the various departments of duty, have been pointed out to me, and, as far as I can judge, are highly useful improvements.

I took passage in the Union, from Norfolk to my own house, because it delayed the vessel but little in her destined cruise; because it was desired by you that I should do so; and because I considered it important that I should form, from personal observation, some idea of her powers, both under steam and under sail. The wind being fair and sufficiently fresh, she made but little use of her steam; and, therefore, on that point I cannot speak with confidence, from personal observation; but I rely, without doubt, on the reports of her performances at sea, which have heretofore been published. I will mention only the remarkable smoothness of her motion—there being no jar, no noise, and none of the other usual effects of the action of steam-engines, except a slight, tremulous motion, occasionally, yet not frequently, felt.

As a sailing vessel, I consider the Union *much the best that I ever saw*. Whilst her motion is as gentle as it can be, (scarcely disturbing the water in her progress,) her speed is extraordinary, and her capability to bear sail unusually great. Whether or not she will do well in a heavy sea I have had no means of ascertaining, but I have no reason to doubt that she will; and, if it should be so, I do not perceive that any considerable improvement can be made, either in her model or her rig.

In conclusion, sir, I think you have achieved a great and useful thing. You have presented to your country a vessel of war, combining all the best properties of two classes of cruising vessels—a sailing vessel possessing all the benefits of steam-power, without any of its disadvantages. Considering that this is a first experiment, your success has been wonderful. I have no reason to doubt that the skill and knowledge which you possess, directed by your zeal and enthusiasm in this cause, will enable you, in future trials, to introduce all the improvements of which your general plan is susceptible. Yet, even if no improvements should be made, the vessel, as she now is, establishes a new era in the application of steam to navigation.

Your country, in my opinion, owes you a large debt of gratitude and confidence; and I trust that it will be paid in a becoming spirit, not merely of justice, but of liberality.

I am, respectfully, your obedient servant,

A. P. UPSHUR.

Lieut. WM. W. HUNTER,
U. S. Navy, Washington.

WASHINGTON CITY, August 29, 1843.

SIR: By your direction, I have the honor to submit the working model and draughts for the small iron steamers on my plan, which you propose to append to the African and Pacific squadrons; and one of yet smaller dimensions, designed for the protection of the Government live oak; together with my reasons for using iron instead of wood in their construction, and for applying to them the auxiliary propulsive power of steam.

An iron vessel has the following advantages over a wooden one of the same dimensions, viz:

- 1st. Greater strength.
- 2d. Less weight, and consequently she may be propelled faster by the same power, whether wind or steam.
- 3d. She has more room inside for her crew and provisions.
- 4th. She cannot be burned.
- 5th. She will last forever, and cost scarcely anything for repairs. This comparative indestructibility keeps her ever ready for sea, and exempts her from the great expense attendant upon the preservation of wooden vessels in ordinary, and the loss of time consumed in fitting the latter for sea.
- 6th. Her bulk-heads being water-tight, she may not be sunk, though one part of the vessel be pierced by shot.
- 7th. A Paixhan shell cannot lodge in her side.
- 8th. She has none of the vegetable matter of wooden vessels about her, which produces disease by decomposition.
- 9th. The utmost cleanliness of the berth-deck is indispensably necessary to the health of the crew. Hers being iron, may be washed at all times. Not so the wooden-decked vessels, where the dampness arising from the absorption in washing them is so great, that the medical officers attribute to it chiefly the size of their sick lists.
- 10th. The vessel being of iron, is ever tight, and costs nothing for calking, except on her spar-deck, which should be of wood.
- 11th. She is free from vermin, so destructive to provisions and stores in the wooden vessel.

12th. She will make a great saving in the article of paint; the iron surface being simply covered with it, whilst the wooden one is saturated.

The model and draughts submitted, present to your view a fast-sailing and efficient vessel, as capable of cruising and performing all and every evolution under her canvass alone, as any other vessel may do without the aid of steam-power—with a deck, too, as clear and unincumbered for a battery or other purposes. She has, therefore, all the advantages of, and can be sailed at less cost than, an ordinary cruiser of her size or class. (This is proven by the performances of the steamer *Union* at sea, where she has exhibited, practically, her efficiency under canvass and steam separately, each moving power being independent of the other. I have the honor very respectfully to submit to you, herewith, a demonstration of the problem exhibited in her model. (The demonstration is hereunto appended.)

The auxiliary propulsive power of steam may thus be applied without detriment to the cheapest and most essential moving power—the wind. The advantages of this application to vessels designed for the services stated in the premises are these:

On the coast of Africa, to facilitate with certainty and celerity the navigation of rivers against currents and adverse winds; to be able to move

more rapidly in calms, and against the wind, than the light vessels selected for the slave-trade, which are always amply provided with "sweeps," and are therefore often accessible only in boats—a manner of attack very disadvantageous. Besides these, is the great saving in health to the crews, by shielding them from fatal exposure to heat and rain; an excess of both of which is common to the cruising ground on that coast.

The vessel designed for service in the Pacific will proceed to the straits of Magellan under canvass, steam through these, and run to Valparaiso, Lima, and Panama, before a trade-wind. A return to either of these ports without the aid of steam can be effected only by a long and tedious beat, dead to windward against the trades; whereas, by the aid of her steam, she may be the medium of a rapid and certain communication between these points, subject to our naval laws. The Government is thus put in direct and speedy communication with its forces in the Pacific, by the way of Panama; a secure and rapid means for the transmission of intelligence is established, so important to the vast commercial interests of our citizens trading in those seas, as also a safe means for the transportation of their funds; and thus will be removed an obstruction to our commercial, and consequently our national interests, which has ever been sensibly felt in that quarter. The coal-mines on the seacoast of Chili will abundantly supply her fuel; and on her voyage to Panama under canvass, she will carry the coal to bring her back to Lima under steam. As the vessel designed for this service is small, and will use fuel only on her return passages from Panama, its cost will be trifling; and I doubt not that, if she be used as a mail-packet, the receipts to the Government from that service will fully defray all cost; and will certainly in one year's service far exceed the entire first cost of the vessel and all her expenses, if to those be added the usual per centage upon the transportation of specie and bullion.

The vessel's armament should consist of but *one* heavy eight-inch gun on a pivot. She would then be an efficient cruiser, with steam-power at hand, but not to be used without a necessity for its application, which should be shown upon the log-book.

The little vessel designed to guard the live oak should be smaller, of lighter draught of water, and mount one long 18-pounder chambered pivot-gun. She should be fast under canvass, with steam-power to move briskly against the wind, and tow to the place of adjudication any vessel found depredating on the live-oak lands. Her steam-power, too, should never be used without a necessity for it; and this should be made to appear on the log. Her construction is such as will render the action of her machinery and propellers noiseless; thus fitting her for the service of surprise. Her furnaces should be adapted to the consumption of wood as well as coal, that she may be enabled, if necessary, to supply her own fuel, and to use the mangrove wood, (found in great abundance in all parts of her station,) the smoke from which is scarcely perceptible even in daylight—a fact I reported to the department several years since, based upon my actual use of that fuel whilst in command of a steamer acting against the Indians in Florida.

Her cruising ground is on a coast where a large amount of property is wrecked every year. She can be made very useful in preserving this, and rescuing human life from the risks consequent upon these wrecks; and if at any future time her services should be required as a packet, despatch, or gun-boat, as a look-out, signal, surprise, or freight-vessel for the trans-

portation of anchors, chain cables, shot, shells, stores, water-tanks, or seamen, from depot to depot, she will be found fully adapted to them.

The three vessels above described can be completed entire for \$50,000 each, the sum required for the three being \$150,000.

I have the honor to be, with great respect, your obedient servant,

WM. W. HUNTER,

Lieut. United States Navy.

HON. DAVID HENSHAW,

Secretary of the Navy, Washington city.

Upon the construction of marine steamers.

Before proceeding to the consideration of this subject, it is necessary to admit the truth of the two following propositions, namely :

That every floating body displaces a quantity or weight of water equal to its entire weight ;

That the power required to impel bodies of the same form through water is in accordance with their greatest immersed cross-section.

The position of the propeller in the vessel we shall now treat of is within the greatest cross-section : therefore, as we *increase the resistance* of this cross-section by increased submersion, we, at the same time, find a denser medium, which *increases, by its greater resistance*, the efficiency of the propeller.

To enable us to carry the cross-section through the water with the greatest facility, we avail ourselves, in the construction of the vessel, of the mechanical power of the wedge ; and, to this end, the extremities of the vessel are as far removed from the cross-section as is consistent with a due proportion of the breadth of the vessel to the length ; for the further they are removed, the wedge becomes more acute, and a greater power is obtained to accomplish the end desired ; for the after end of the vessel is operated upon by the reaction of the fluid that has been divided or pushed aside by the wedge-form of the forward section, which reaction is equal to the gravity of the water, plus the atmospheric pressure ; and, since *all* fluids in motion exert their force at right angles to the plane of resistance, it *must be* apparent that, in the after section, we possess a form by which the gravity of the water displaced by the cross-section is converted into an impelling power. But, although the form described represents two wedges abutting upon each other at the greatest cross-section, it must not be understood that an angular point is there presented ; for the propeller *there placed*, as already stated, gives, from the length of its diameter, a graceful curve to the sides of the vessel.

The *right lines* of entrance and clearance being the shortest distances between the greatest cross-section of the vessel and the extremities, the *fewest possible* particles of water are to be severed by the vessel's progress.

We have now described the form offering least resistance for its area ; but, in the construction of a vessel for marine navigation, there are qualities to be considered beside those which offer the greatest facility of propulsion.

The quality we shall next consider, from its importance, is buoyancy.

The *right lines*, forming the sides of the vessel described, cause her floor to be a *right line* of her entire length, and do not admit in her what is technically called "dead wood ;" or, to be more distinct, there

is space, where otherwise there would be a mass of timber; and this space gives buoyancy. Water is incompressible for practical purposes, and resists pressure in accordance with the pressure to which it is subjected: therefore, it will be admitted that the water at the bottom of the vessel sustains the pressure of the superincumbent mass of water, plus the pressure of the atmosphere; hence the power exerted upon every square foot at the bottom of the vessel, to sustain her, is equal to the pressure of a column of water in height from the bottom of the vessel to the surface, plus the atmospheric pressure.

We believe we have already demonstrated that the form of the vessel described possesses sufficient stability for the use of steam-power alone; but for marine navigation, for the sake of economy in long passages, it is advisable to avail ourselves of the winds. Steam exerts its force on a direct course; the wind admits of gaining the same end, while it exerts a lateral pressure. Now, to adapt the form of the vessel to the use of the last-named impelling power, we will treat of that portion of the hull which is subjected to immersion by its use.

The centre of effort of the canvass is thrown so far above the centre of gravity as to use the leverage of the masts to that extent to immerse the lee side. To oppose this effort, the vessel must be made to possess what is technically called "stability," or capacity to resist lateral pressure—a quality which we will now attempt to define.

A sphere is destitute of stability; a grain of sand is sufficient to invert it. Elongate the sphere, and as its poles are removed from its centre, so will the form thus produced possess stability; *i. e.* flatten out the upper, and elongate the lower hemisphere, until the summit of the sphere is lowered to that point nearest the centres of motion and gravity, and we have a form possessing stability to the utmost extent of its area.

The form of the vessel, as we have described it, already presents its sides below the surface nearly perpendicular; but, from the surface upward, the sides should present a convex curve, which increases the breadth or beam at every remove from the surface. This portion of the hull can only be immersed by lateral pressure; and the form we have given it will furnish an increased stability, or resistance to lateral pressure, as the demand for stability is increased.

Depth of keel is used to resist lateral pressure of canvass. The *perpendicular* sides of the vessel we have described accomplish all that is derived from the keel, and confer the advantage of navigating, with heavy ships, waters accessible only to a light draught.

We have now given the theory, and described it as practically exhibited in a vessel constructed upon the foregoing demonstration;—combining all the advantages of a steam and sailing vessel, with a capability of using either power independently and efficiently.

In thus presenting a vessel offering some advantages over those heretofore employed, it cannot create surprise that we have availed ourselves of a form materially differing from that with which the eye has long been familiar, and to be propelled by means offering advantages in point of efficiency, comfort, and security, such as we think we shall be able clearly to show.

I have the honor to be, very respectfully, your obedient servant,

WM. W. HUNTER,

Lieut. U. S. Navy.

HON. DAVID HENSHAW, *Secretary of the Navy.*

WASHINGTON CITY, November 29, 1843.

SIR: I would respectfully request to append to my report of the 24th of June, 1843, this notice of some of the advantages peculiar to sea-steamers constructed on my plan, which have not heretofore been brought to the consideration of the department.

1. Their peculiar model, (which, while it gives the greatest capacity and buoyancy, carries with it the lightest draught of water; and thus renders all our southern harbors available for the largest class of vessels of this construction,) enables them to be run boldly, without the apprehension of grounding; and, even in this event, they can receive no injury to their propellers.

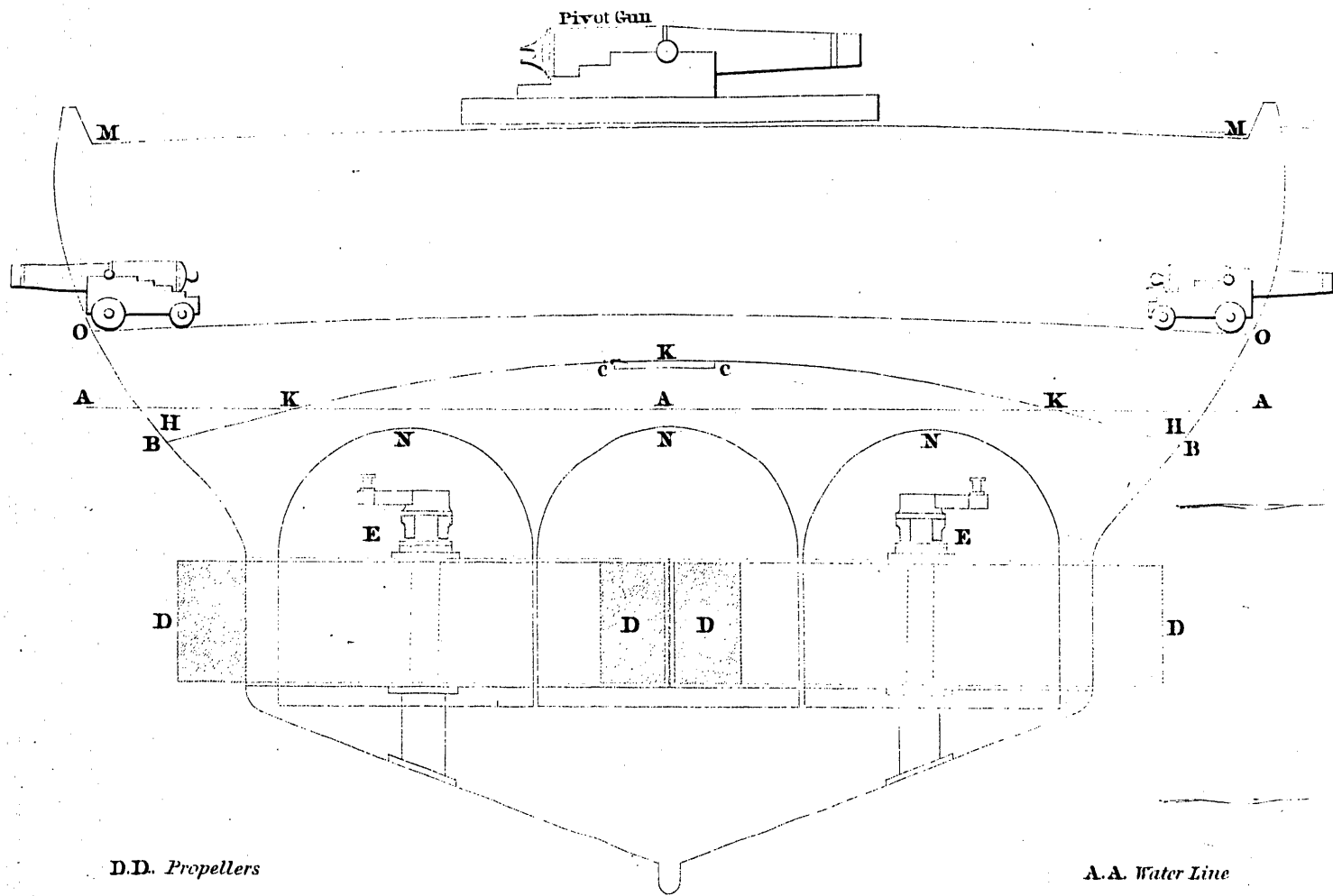
2. From the drift-wood in our southern, and the ice in our northern rivers and lakes, so destructive to the propellers of steamers, these propellers are entirely protected; being horizontal in their action, far below the surface, and throwing *from* them, by centrifugal force, a rapid current of water.

3. The horizontal action of the propellers, as just stated, and their separate and distinct action, render the use of the rudder unnecessary to steer the vessel under steam, because she may be steered by the propellers, without the rudder, as has been often proven. She can thus turn on a *pivot*, or the *centre* of a circle, and may then give or avoid a raking fire at will; whilst all other vessels are dependent upon their rudder to turn, and must then move on the *arc* of a circle. The loss, then, of the rudder in all other vessels, destroys their ability to manœuvre; whilst these vessels are not exposed to the risk of injury in this most vulnerable point.

It is proper in this place to call your attention to an important part of my plan for war-steamers, (which has not as yet been embraced in the construction of any,) which, by means of a shield-deck, renders it impossible to sink them by means of an enemy's shot, notwithstanding every shot may pass through the sides of the vessel. This is so self-evident, that it will not admit of doubt. The diagram and demonstration hereunto appended will explain it.

In conclusion, sir, it may not be out of place here to fix your attention to some of the facts connected with the development of this American improvement in the art of constructing, rigging, equipping, arming, and propelling vessels, as shown in the steamer *Union*, the first experiment of any magnitude made with it.

In the construction of the *Union*, the chief effort was to develop the plan, and furnish the Government a strong, cheap, and useful vessel. What degree of success attended the effort, you can determine. Her frame is of heavy oak timber, sided fourteen inches, solid and calked for eighty feet in her midship sections, on the bottom and sides up to her berth-deck. She is planked to the water-line with heavy 6-inch oak plank, and ceiled with 4-inch oak and pine, and calked to the berth-deck. Every plank may be torn from her sides and bottom, and cause no leak to the vessel. She is copper-fastened more heavily than usual; is of 1,040 tons; and cost, equipped and armed, ready for sea, by the official returns already presented to you, \$113,909 94 $\frac{1}{4}$. The force that has hitherto been effective to propel her, at a consumption of twelve and a half tons of bituminous coal in twenty-four hours, has been, in conse-



D.D. Propellers

B.K.B. Shield Deck

E.E. Cranks and Shafts of propellers

N.N.N. Boilers

A.A. Water Line

O.O. Gun Deck

M.M. Spar Deck

quence of her defective boilers, one-third less than it will be when her new boilers, of 270-horse power, are completed and in operation. This will still be a power far inferior to that employed for ocean-steamers of the same tonnage. Official evidence has already been furnished you, by disinterested persons, that her rate of steaming with her first and defective boilers was ten miles per hour, whilst, as a sailing vessel, she was equal to any other. Thus, then, is established, that for her tonnage and battery this first vessel cost far less than any war-steamer hitherto constructed; and, from the success which has already attended her, with the experience gained in her construction, the assurance is given that a much higher rate of speed will yet be attained in the future construction of vessels upon the same plan.

Demonstration.

Let AAA be the water-line, and BKB be the shield-deck, of iron, or faced with iron. The abutments of said shield-deck are joined and secured entirely around and within the vessel, at a given distance below the water-line, out of the reach of shot. The summit of said shield-deck is exactly amidships, and so elevated that a greater space is contained between the shield-deck and the water-line, above the water-line, than between the shield-deck and water-line in the wings of the vessel below the water-line. The hatches are amidships, in the summit of the shield-deck, and are fitted to traverse fore and aft within the shield-deck at CC, with water-tight slides of iron. The abutments of the shield-deck at BB are, by reason of their distance below the water-line, out of the reach of shot; and the surface of the shield-deck being of iron, and forming, with the direction of any missile discharged against it from cannon afloat, an angle of over 135° ; and as said angle will cause said missile to glance or be thrown off from said deck, it follows that that part of the vessel contained under the surface of said shield-deck is secure from the effect of shot. Now, compare the space contained between that part of the water-line, that part of the inner surface of the vessel's side, and that part of the surface of the shield-deck at HH, to that contained between the part of the water-line and part of the surface of the shield-deck at KKK; and it is evident that, should the side be so pierced or torn by shot as to fill the first-named space at HH with water, (being all the water that can possibly be admitted,) the buoyancy gained by the greater space at KKK, together with the displacement contained under the shield-deck and water-line, make it manifest that said vessel cannot be made to sink by the means named in the premises; and the engines and machinery, being far below the water-line, will be by said means protected.

Very respectfully, your obedient servant,

WM. W. HUNTER,
Lieutenant U. S. Navy.

To Hon. DAVID HENSHAW,
Secretary of the Navy.

No. 16.

REPORT OF CAPTAIN R. F. STOCKTON.

U. S. SHIP PRINCETON,
Philadelphia, October 21, 1843.

SIR: I have the honor to inform you that I left the Delaware on Tuesday, the 17th instant, to try the Princeton at sea, and returned to this place last night to finish her equipment. The Princeton has performed so well, under all circumstances, that too much cannot be said in praise of her. We arrived at Sandy Hook on Wednesday, in 21½ hours from New Castle. We went up to the city of New York to show ourselves, and to give notice to the captain of the English steamer Great Western that I designed to have a trial of speed with that vessel. On Thursday the Western came out of the East river, and the trial took place from the Battery to the sea, in which we gained a most glorious triumph in the presence of many thousands of our fellow-citizens assembled to witness the useful and exciting contest. The following account, (which was made at the time by two gentlemen who came on board for that purpose,) I prefer to send to you, rather than to trust my own pen on the subject. You will allow me, however, to add, that the Princeton is now admitted to be the fastest and the most beautiful, as she will hereafter be admitted to be the most formidable ship afloat.

“At 38 minutes past 2 o'clock, p. m., whilst the Princeton was lying in the North river, the Great Western was seen passing the Battery under a full head of steam, blowing off strong, and with her fore and aft sails set—the wind blowing fresh from the westward. The Princeton immediately started her engine, gave chase, and, coming up astern of the Great Western, soon passed with no sails set, and the yards square. The Western then set her square sails, and the Princeton, following her example, made sail also, and continued to widen the gap between the two vessels. When the Princeton had arrived at the buoy of the middle [bar] below the Narrows, she was more than a mile ahead of the Great Western. Here the latter ship, to make good the distance she had lost, took the ‘swash channel,’ which is three miles shorter than the ordinary ship channel, which the Princeton had taken before she was aware of the intention of the Great Western. Notwithstanding the greater distance she had passed over, she met the Western again at the black buoy on the outer bar, and there passed under her stern about two lengths distant, then hauled up on a line parallel to her; when, coming alongside, Captain Stockton wished Captain Hosken a pleasant passage, and the crew of the Princeton gave the Western three cheers. The Princeton then passed rapidly ahead of the Western, in two minutes crossed her bow, and then hauled up for the capes of the Delaware.

“From the time that the Princeton passed Castle Garden till she finally left the Great Western, was one hour and fifty-six minutes; during which time she had beaten her three miles.

"The Princeton occupied one hour and thirty-one minutes in going from Castle Garden to Sandy Hook point, a distance of more than twenty-one miles : thus showing her speed to have been more than fourteen miles per hour, and that against the flood tide, and proving her to be the fastest sea-going steamer in the world.

"The Great Western accomplished the distance to the bar in considerably less time than she had ever done before, having been well prepared for the occasion.

"The Princeton had her full complement of coal in her bunkers, as also the greatest part of her water and stores, and a quantity of coal on deck equal to the weight of her armament."

Your obedient and faithful servant,

R. F. STOCKTON.

HON. DAVID HENSHAW,

Secretary of the Navy.

No. 17.

REPORT OF SURVEY OF MEMPHIS.

MEMPHIS, *May 4, 1843.*

SIR: We have the honor to transmit herewith our report and plan of the survey and examination of the harbor of Memphis, made in obedience to your order of the 25th of March. During the whole of our stay here, the Mississippi has been at its highest stage, and the low grounds entirely covered with water. We deem it of great importance, to the end of obtaining more accuracy, and verifying by our own observation the information we have received from others, that we should be allowed the opportunity of revisiting this place at a season when the river will be sufficiently low to expose the entire surface of the bank. This may be the more necessary, as it cannot be known till then what alteration the present flood may make in the size and form of the batture.

Very respectfully, your obedient servants,
 L. ROUSSEAU, *Captain.*
 H. A. ADAMS, *Commander.*
 S. JOHNSTON, *Lieutenant.*

The Hon. A. P. UPSHUR,
Secretary of the Navy, Washington.

Report of the survey and examination of the harbor of Memphis, Tennessee, by Captain L. Rousseau, Commander H. A. Adams, and Lieutenant S. Johnston, U. S. N.

MEMPHIS, TENNESSEE, *May 3, 1843.*

SIR: Agreeably to your order of the 25th March, we have made a survey and examination of the harbor of Memphis, and have the honor to furnish the following report, in which all the points of inquiry contained in your instructions are noticed in order.

No. 1. Depth of water at all seasons?

Opposite the site surveyed for a naval depot, the channel of the river runs close to the edge of the bank, and thirty feet of water may be found at the lowest stage of the river.

No. 2. Greatest draught of water which can be carried to the Gulf of Mexico, at the lowest stage of the river?

Seven feet is the greatest depth which can be relied on during low water, which is usually about three months in the year. The quantity of water beyond that will always depend on the rise in the river. The obstructions, at low water, are sand-banks at different points below this place.

No. 3. Distance of low-water mark from the channel of the river?

The channel of the river runs close to the batture, and vessels of any draught can lie alongside the shore at low water.

No. 4. Practicability of constructing wharves?

Wharves, as they are constructed on the northern rivers, are not suitable to the banks of the Mississippi, where the difference is so great between high and low water. Floating wharves, on the plan of the wharf-boats in general use here, would be much more convenient, and could be built at a trifling expense.

No. 5. Nature of the river bank, and adjoining soil?

Memphis is situated on a bluff of land known as the fourth Chickasaw bluff, elevated eighty feet above the river at extreme low water. The soil of this bluff is clay mixed with sand and loam, and is in most places suitable for making bricks. Between the foot of it and the bed of the river, there is in some places a narrow slip of level land, the surface of which is a little above the river at average high water. It is an alluvial deposit, and liable to cave or wash away when the current of the river runs strong against it. It will be seen, by the plan of survey, that in front of the city, and extending both above and below the site marked for a naval depot, is a bank, or batture, formed by the deposit of the river, which at average low water is twenty feet above the river, and at the lowest water known is twenty-eight feet above it, and has at high water from six to twelve feet on it. The channel of Wolf river cuts through it, and it is at the mouth of Wolf that the only practicable place for the erection of public buildings can be found in the harbor of Memphis. This bank is of recent formation, and is at low water dry and firm. When the building of Memphis was commenced in 1819, the channel of the river ran close to the bluff bank, and the steamboat landing at low water was then at the mouth of Wolf. In 1820 the river forced for itself a new passage at a place some miles above, which gave a different direction to the channel; an eddy was formed, where the main current ran previously; and the deposit commenced, which has made the batture what it now appears. It is stated by respectable citizens of the place, that for one or two years past the batture has gained nothing in surface, but that every overflow raises it from six to twenty inches higher. To reclaim the part embraced in the site, it would be necessary to levee the outer edge of it, and drive piles of great length at low water, from the termination of the causeway that forms its southern boundary, up the river, to the mouth of Wolf; and up the south side of Wolf as far as the limits of the yard; and also around the triangle on the north side of Wolf. It could then be filled up by the earth removed in grading the hill above it, and with material from other parts of the bank; or by the natural deposit of the river, which could be admitted at high water for the purpose. The cost of grading the bluff, and raising the entire site above all overflow, is estimated at \$28,920. The permanency which may be given to works of this sort is shown at New Orleans, where a considerable portion of the city is built upon a similar batture, secured in the above manner. Wolf is a small river about one hundred and sixty feet wide at its mouth, and having at low water a rapid current, and said to be two hundred miles in length. It would form in high water an admirable harbor for boats, and a good place for landing timber and stores of all kinds. It must be observed, however, that Wolf cannot be entered with boats at a low stage of the river. Thus this place presents, after being leveed and filled up, a sufficient front on the river for building a convenient harbor for boats bringing iron, coal, timber, or provisions; ample space on the low grounds for ropewalks, work-shops, and other necessary buildings; and on the bluff, sufficient room for officers' quarters and marine barracks. This is the case at pres-

ent; but the well-known character of the Mississippi is not altered at Memphis. We have stated already, that one change in the set of its current has caused the formation of the batture in front of the city; another change, which can neither be foreseen nor prevented, may occur, to throw the river once more against the bank, the batture be cut away as rapidly as it formed, and the river return to its former channel near the foot of the bluff. It is well known that changes of this sort are constantly going on in all parts of this extraordinary river; and that where the bank is caving or washing away on one side, a batture is usually forming on the opposite one. Whole acres sometimes settle down at once, bearing trees, cotton-fields, and sometimes even the house of the planter. In other places, where the river has straightened itself by cutting through the land at a bend, plantations and settlements, which had been established on the banks, were left by its new course miles in the woods, with a mere lake before them. It is our opinion that the first of these catastrophes may be guarded against at this site, by securing the outer edge of the bank in the way above described; and of the second there is no danger. Whatever weight these objections may have, they will apply with equal force to all parts of the river.

This is the only situation in the harbor of Memphis proper, at which a naval depot could be established; but, having understood that a favorable site might be found at Fort Pickering, (a town about two miles below Memphis,) and believing it to be within the spirit of our instructions, we extended our examinations to that place. The bluffs here are something higher than at Memphis, and more broken into ravines.

Between the foot of them and the river is a narrow strip of land above ordinary overflow, but entirely too small for a navy-yard. To obtain room here, it would be necessary to grade and level the Chickasaw bluff—a work of immense labor and expense. And even if this were done, the buildings and work-shops would have to be erected on the hill, seventy feet above the building-slips, for there is no room below. The river front which could be obtained here is also quite small; and a bar, having but little water on it, extends along a great part of it, leaving a very inadequate space for building and launching. The bed of the river at this place is of a rocky nature, and it is said no change has taken place along the bank since the settlement of Memphis. A plan of the site, furnished us by the citizens of Fort Pickering, accompanies this report.

No. 6. Height of the bank above the river at high water?

The height of the bluff above extreme high water is between forty and fifty feet. The low bank is then covered with from six to twelve feet of water.

No. 7. Height of the bank at low water?

The height of the bluff above the lowest water known is about eighty feet. The bank is then about twenty-eight above the surface of the river. At average low water, the bank is about twenty feet above the river.

No. 8. Protection against winds?

The mouth of Wolf river is a harbor for boats against all winds. The western front of the site is open to winds blowing across the river.

No. 9. Kinds and quantities of timber, iron, provisions, and supplies of all sorts to be obtained?

Timber abounds here in great variety. Of oaks, there are the white, the black, half-overcup, extreme overcup, Spanish willow, black and red post, and several others. There are also the black and honey locust, of large



PLAT

of a part of the Town of Fort Pickering

Exhibiting also a portion of the Lands belonging to John C. M. Lemore and John Trigg, with the height of the Bluff, the table bench, the depth of the soundings &c. Surveyed and platted for the use of the Commissioners appointed to survey the Harbor of Memphis, with a view to its adaptation for a Naval Depot and Dock Yard.

Monument Square has been conveyed by M. M. Lemore to Martin Van Buren and others in Trust, for the purpose of erecting therein a Monument to General Andrew Jackson.

The Soundings are taken at high water, 100 feet apart, and 100 feet from the shore, and there is no decrease to the channel of the river. And for half a mile above Walker Street the water is much deeper. Above Broadway for 1/4 mile the front is not suitable for commercial purposes, but would afford an excellent and safe Harbor at all seasons. Taken from actual survey by the undersigned who hereby certify to the accuracy of the same as exhibited on this Plat, this 3^d day of May 1843.

C. Baumgartner Surveyor and Draftsman.

W. W. Hart, Walter B. Morris,
T. B. Hill, Easton Morris.

size, black walnut, maple of all descriptions, cherry, white and red elm, beech, sweet gum, yellow and white poplar, cypress, yellow pine, very large and easily obtained from the Tennessee and Hatchie rivers, and various other sorts not necessary to enumerate. The overcup and willow oaks are esteemed but little inferior to the live oak. All these timbers are easily and cheaply obtained by water carriage. The iron of the Tennessee, which is esteemed equal to any in the United States, can be delivered here, square and round, at eighty dollars per ton. Pig-iron, best gray, at from twenty to twenty-two dollars per ton. Pittsburg coal delivered at ten cents a bushel, or three dollars a ton. Kentucky, Indiana, and Illinois coal at two dollars and forty cents per ton. Tar in abundance at one dollar and fifty cents a barrel. The hemp of Kentucky and Missouri can be obtained in any quantity, and, from experiments made in the neighborhood of Memphis, it is thought a quality may be grown here equal to any in the United States. All kinds of provisions may be had in inexhaustible quantities, from the valleys of the great rivers above, brought down in steam and flat boats, and sold at prices lower than they can be afforded in any of the Atlantic ports. Iron-works are on the Tennessee, Cumberland, Missouri, Mississippi, and Ohio rivers. By steamboat transportation, iron may be delivered at this point from the works, in from two to three days, and by flat boats in from five to ten days. Specimens of some of the above-named timbers will be forwarded to the Bureau of Construction and Repairs.

No. 10. Facility of procuring mechanics and laborers?

Mechanics and laborers may be procured here in any numbers, from the upper country, in from three to four days; and, from the cheapness of living, it is presumed, at prices as low as in any portion of the western country.

No. 11. Facilities of procuring stone, brick, and other materials for building?

Building stone can be delivered here, rough, at one dollar per perch; dressed, and laid in two feet walls, at three dollars a perch. Tennessee marble, a beautiful material for building, at fifty cents per cubic foot, rough. Bricks, of good quality, laid in the wall for six dollars a thousand; lime, in any quantity, can be had from the upper country.

No. 12. Practicability of obtaining water-power?

Water-power may be obtained, if necessary, by cutting a canal from a point about 11 miles distant, on Wolf river. A report and plan of survey of the route, by Col. D. Morrison, made at the request of the mayor and aldermen of Memphis, accompanies this report. We have visited the location, and examined the line, and are satisfied of its practicability. It is believed that a right of way for this canal would be given to Government, and that it could be made within the sum specified in Colonel Morrison's estimate. There is a miscalculation in the report of Col. Morrison, with regard to the power to be obtained by such a canal, but which does not affect the practicability of the route, nor the expense of construction.

No. 13. Health of the adjacent country?

When Memphis was first settled, it had a very bad reputation on the score of health. But, since the opening of farms and plantations in its vicinity, the thinning of the forests, the opening of roads, and the gradual clearing up of the country, it appears to have greatly improved, and is now considered equal, in this respect, to any point on the river. An official statement by the board of health, for four months of last year, is presented

herewith. The winter is said to be the most unhealthy season, when pleurisies and other diseases incident to a variable temperature are prevalent.

No. 14. Extent of the sites that may be found suitable, and the prices asked therefor?

The site surveyed contains eighty two and a half acres, which can be increased on the north side of Wolf to a much greater extent, if desirable, at a low cost—say twenty dollars an acre. It will be seen that part of the site is embraced in the plan of the city of Memphis. The building-lots are owned by various individuals, some of whom are at this time absent. Some part belongs to the city, while to other parts there are conflicting claims. The mayor and aldermen have made great efforts to remove all obstacles to obtaining for Government a clear and indisputable title; and we forward herewith a resolution passed by them, in which they undertake to sell the site to the United States for twenty thousand dollars.

The above details appear to us to convey all the information necessary to form a conclusion as to the *practicability* of establishing a naval depot at this place. Of its *expediency*, in a national point of view, there cannot be a doubt. The reasons are too obvious, and have been too abundantly proclaimed, to require a repetition from us. This particular location is excellent for a building yard; but is, perhaps, scarcely sufficiently accessible for vessels in need of repairs.

We have the honor to be, with great respect, your obedient servants,

L. ROUSSEAU, *Captain*.

H. A. ADAMS, *Commander*.

STEPHEN JOHNSTON, *Lieutenant*.

The Hon. A. P. UPSHUR,

Secretary of the Navy, Washington.

Proceedings of the board of mayor and aldermen of the city of Memphis, Tennessee, on the subject of the establishment of a western armory and naval depot and dock-yard at Memphis; together with the report of Col. D. Morrison, civil engineer; the report of the committee appointed by the board, &c. &c.

At a meeting of the board of mayor and aldermen of the city of Memphis, held on the 23d of September, 1842, Col. D. Morrison's report of the survey and level of a canal-route from Wolf river to the bluff at Memphis, was received, and referred to E. Hickman, mayor; L. Shanks, E. H. Porter, W. A. Bickford, aldermen; Charles Potts and S. Tod, civil engineers—a committee instructed to examine its correctness, and report to the board what further action should be adopted on the subject.

At a subsequent meeting of the board, held on the 29th of September, the committee reported: "That they have carefully examined the report of the civil engineer, Col. D. Morrison, by comparing his field-notes, profile, and estimates of the route, with a survey made some years since by Col. Potts for a road over most of the same ground; that they are satisfied it may be relied upon as being correct; and that it be received, and, with the profile, be recorded on the journal of the board for future reference."

The committee further recommended "that said report of the civil engineer, with the report made to Congress by Mr. Clark, chairman of the

Committee on Naval Affairs, and the memorial of the chamber of commerce of the city of Charleston, (South Carolina) on mail routes, together with such facts as are not embraced in either report, which may be deemed important to the agents of the Government in selecting a location for the western national armory and naval depot and dock-yard, and to manufacturers, be printed; and that copies be forwarded to the officers of the Government concerned in the location, members of Congress, &c.

Whereupon, the board resolved that the same committee be instructed to make the report and publication recommended.

E. HICKMAN, *Mayor*.

JAMES H. LAWRENCE, *Recorder*.

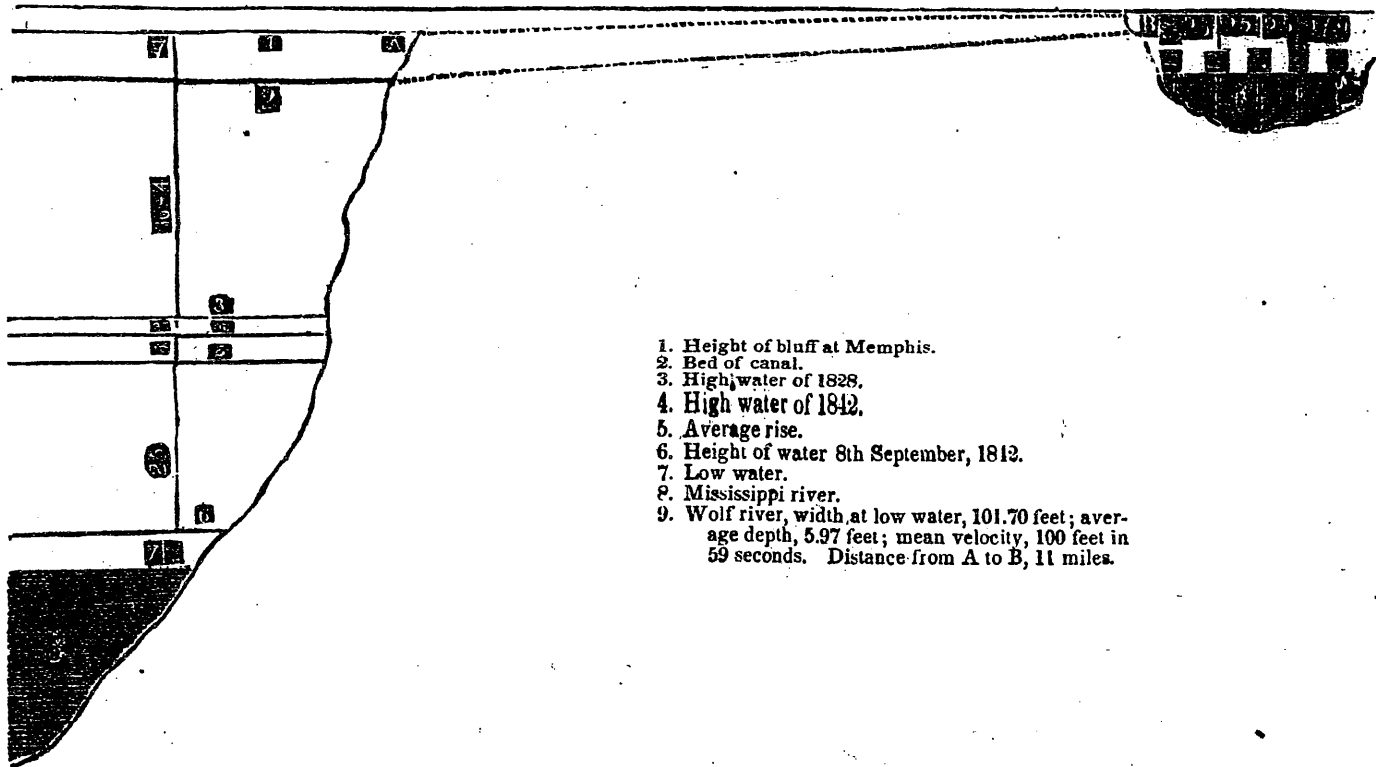
To the Mayor and Aldermen of the city of Memphis :

GENTLEMEN: In pursuance of your request that I should furnish the board with a written report of a canal route from Wolf river to this place, and the deep interest manifested by every class of citizens, especially by the enterprising and intelligent planters and farmers in the neighborhood of the contemplated route, I take much pleasure in laying before you the following report:

I commenced my survey on the 29th August, one and a half mile above Stanley's ford on Wolf river. At this point the stream is confined within high, firm banks, with a smooth, hard bottom. Here a permanent dam can be built, and suitable stone can be procured in the immediate vicinity. A survey of the river at this point gives the following result: width of stream, 101.70 feet; mean depth, 5.97 feet; mean velocity, 100 feet in 59 seconds—making 61,750 cubic feet per minute. Here the levelling commenced, following the valley of the river 160 poles from this point; course north, 80 degrees west, to the head-waters of Hurricane creek, a distance from the river of two miles and eight poles. Here a cut of 1.95 foot wide, and 40 poles long, will bring the water to this point; from thence little more is required than to open a ditch for the water to the high grounds half a mile east of Memphis, where the bayou forms a natural tail-race; or half a mile north of the town, where Wolf river would form the tail-race into the Mississippi river. The ground through the whole route being a tenacious clay, with a small admixture of loam and sand, and of that peculiar character best adapted to cheapness and facility of constructing a canal, and for holding water; there being no rock to blast, or sand or gravel requiring to be puddled. The length of the canal will not exceed eleven miles. The fall from Wolf river to the high water of the Mississippi, is 46.72 feet. It is unnecessary for me to trouble you with the details of my calculations, either as to the cost, or the time it would take to execute the work; the aggregate amount is what more directly interests you, than the steps by which the conclusions are obtained.

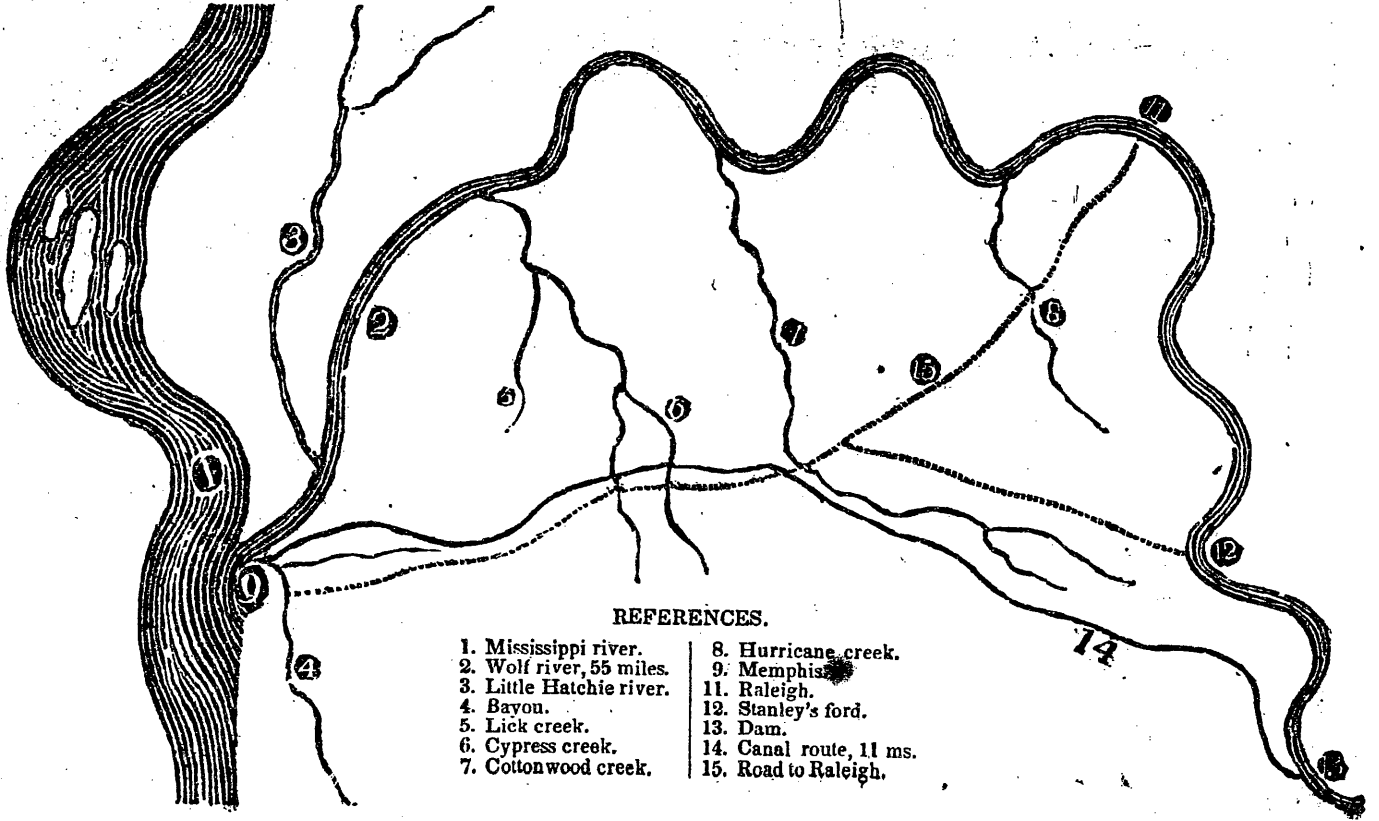
My estimate of the cost of constructing a canal 40 feet wide at the surface, 26 feet wide at the bottom, and 4 feet deep, including a permanent dam in Wolf river, is \$50,000. And I will here venture the opinion, that experienced contractors are to be found at this time to undertake the work at 10 per cent. under my estimate, and complete the same in nine months. The annexed map and profile will show, at a glance, the relative position of Wolf river, and the high and low water of the Mississippi.

Profile and map referred



1. Height of bluff at Memphis.
2. Bed of canal.
3. High water of 1828.
4. High water of 1842.
5. Average rise.
6. Height of water 8th September, 1842.
7. Low water.
8. Mississippi river.
9. Wolf river, width at low water, 101.70 feet; average depth, 5.97 feet; mean velocity, 100 feet in 59 seconds. Distance from A to B, 11 miles.

to in engineer's report.



REFERENCES.

- | | |
|--------------------------|-------------------------|
| 1. Mississippi river. | 8. Hurricane creek. |
| 2. Wolf river, 55 miles. | 9. Memphis. |
| 3. Little Hatchie river. | 11. Raleigh. |
| 4. Bayou. | 12. Stanley's ford. |
| 5. Lick creek. | 13. Dam. |
| 6. Cypress creek. | 14. Canal route, 11 ms. |
| 7. Cotton wood creek. | 15. Road to Raleigh. |

The proposed dam would be required to be 10 feet high, to turn the water out on the margin of the valley; and thence with a small cut, 40 poles in length, to run it upon the flat country, on a line nearly in the direct course towards Memphis. The fall from this elevation of water by the dam in Wolf river, to extreme high-water mark in the Mississippi river at Memphis, being 46.72 feet; from which, deducting the depth of the canal at the dam and one foot head, 5 feet; and the fall of the canal six inches per mile, 5.50 feet; and 2.22 feet loss in the application of the water—making, together, 12.72 feet—leaves 34 feet fall.

With 34 feet fall, 61,750 cubic feet of water per minute, is equal to 2,740-horse power (Bolton & Watts's standard) for propelling machinery for mechanical purposes, if the machinery is kept in constant use; but if used but twelve hours per day, reservoirs made by the dam, and others near the works, would retain the water that would accumulate the other twelve hours; so that an effective force can thus be had equal to 5,480-horse power, twelve hours per day, at all seasons of the year; and eight months in each year this power can be doubled, by using the water a second time from the bottom of the first 34 feet fall on extreme high water in the Mississippi river, when said river falls to its common summer and autumn stage, which gives 37 feet fall between extreme high and ordinary low-water marks.

Should the commissioners select this point as the site for the western national armory, it will require 200-horse power to propel their machinery, as understood from the commissioners. And should Congress, as is recommended in the report of the Committee on Naval Affairs, establish the western naval depot and dock-yard at this point, it would require (say) 200-horse power more; leaving, after an abundant supply for the Government purposes, 2,340-horse power for other manufacturing purposes, from the constant supply of Wolf river at extreme low water, without what may be accumulated by reservoirs, and increased by using the same water twice; showing, beyond all doubt, an ample supply of water for all the purposes of the Government, for watering the city, and for flour mills, cotton factories, saw mills, and all the various manufactories that may be required.

To show the great superiority of water-power over steam, in point of economy, it may not be uninteresting to give some estimates of the comparative expense of the two. The high-pressure engines used in this country, according to the best standard of calculation, require about two bushels of coal, or an eighth of a cord of good wood, for each horse power per day of twelve hours; which, for 2,740-horse power, would consume 5,480 bushels of coal, or 342 cords of good wood. Estimating the coal at eight cents per bushel, and the wood at two dollars per cord, and the cost of the coal would be \$438 40 per day, or \$131,400 for three hundred days; and the cost of the wood would be \$684 per day, and \$205,200 per year of three hundred working days. To this must be added the interest on the cost of the engines, wear and tear, engineers' salaries, and the expense of keeping them running, &c., amounting to about 33 per cent. more per annum; which exhibits, in a striking point of view, the superior cheapness and advantages of water-power.

From the fact that there is no other point near the Mississippi river, within hundreds of miles of the centre of this great valley, where water-power can be obtained at all; and the incomparable position of Memphis, being at the head of uninterrupted navigation at all seasons of the year, com-

manding unlimited supplies, and an unlimited market, there can be little doubt that, so soon as this water-power is afforded by the construction of the canal, most of it will be used.

Considering not only the utility to result from the construction of this canal to the city of Memphis and the surrounding country, but the perpetual source of revenue it may be made to the city, the undersigned earnestly recommends to the corporate authorities to take such steps, forthwith, as will secure the construction of the canal, and the control of the water-power by the corporation.

As an inducement to do so, the board is assured that, from the general desire to have the canal made by the owners of the soil over which it will pass, and the pledges already given by most of them, the right of way can be obtained from all free of cost; that, exempt from the cost of right of way, the object, alone, of obtaining good soft water in sufficient quantity in all time to come, to water a city of any size on this bluff, would be a sufficient inducement to obtain the control of the work. But when it is further considered that the amount of water accumulated in the reservoirs during the twelve hours when the machinery would not be in motion would be more than ample for this purpose, leaving the amount of constant effective power above calculated, together with a power from a second use of the same water, during low water in the Mississippi river, for active use,—the inducements, as a source of immense and perpetual revenue to the city, cannot, at the present time, be fully estimated.

Reference, however, to the value of water-power in the northeastern portions of the United States, where numerous sites for water-power compete with each other, may afford some data upon which this estimate may be based.

At Paterson, Manayunk, Lowell, &c., the use of water-power is sold, with less fall, at from three to ten dollars the square inch, under three feet head; making the cost of one-horse power, where the fall is eighteen feet, from thirty to one hundred dollars. Taking, then, less than the medium price here, where there is a third more fall, (say fifty dollars per each horse power,) and the constant effective power alone estimated would be worth \$137,000 per annum.

To this large amount of annual revenue, which may be derived from the constant supply of water afforded by Wolf river at its lowest stages, without estimating what may be gained by reservoirs, and the use of the same water twice, must be added the large and rapidly increasing revenue which would be afforded by a water-tax for the supplying of all the houses with hydrants in such an important and rapidly-growing city as Memphis.

These estimates of the amount of water-power, and the supply for watering the city on this bluff, as you will perceive, are made upon the quantity of water in Wolf river at extreme low water, and not upon the quantity that a canal of the proposed dimensions will pass for present use.

The amount of revenue to the city would clearly be so large, together with other comforts, conveniences, and advantages—such as promoting health, lessening the danger of fire, and cost of fire insurance on houses, goods, &c.—that I cannot too strongly urge upon the board the importance of securing to the city of Memphis the immediate control of so important a source of comfort, health, prosperity, and future wealth to the town.

I remain, with all possible respect, gentlemen, your obedient servant,
D. MORRISON.

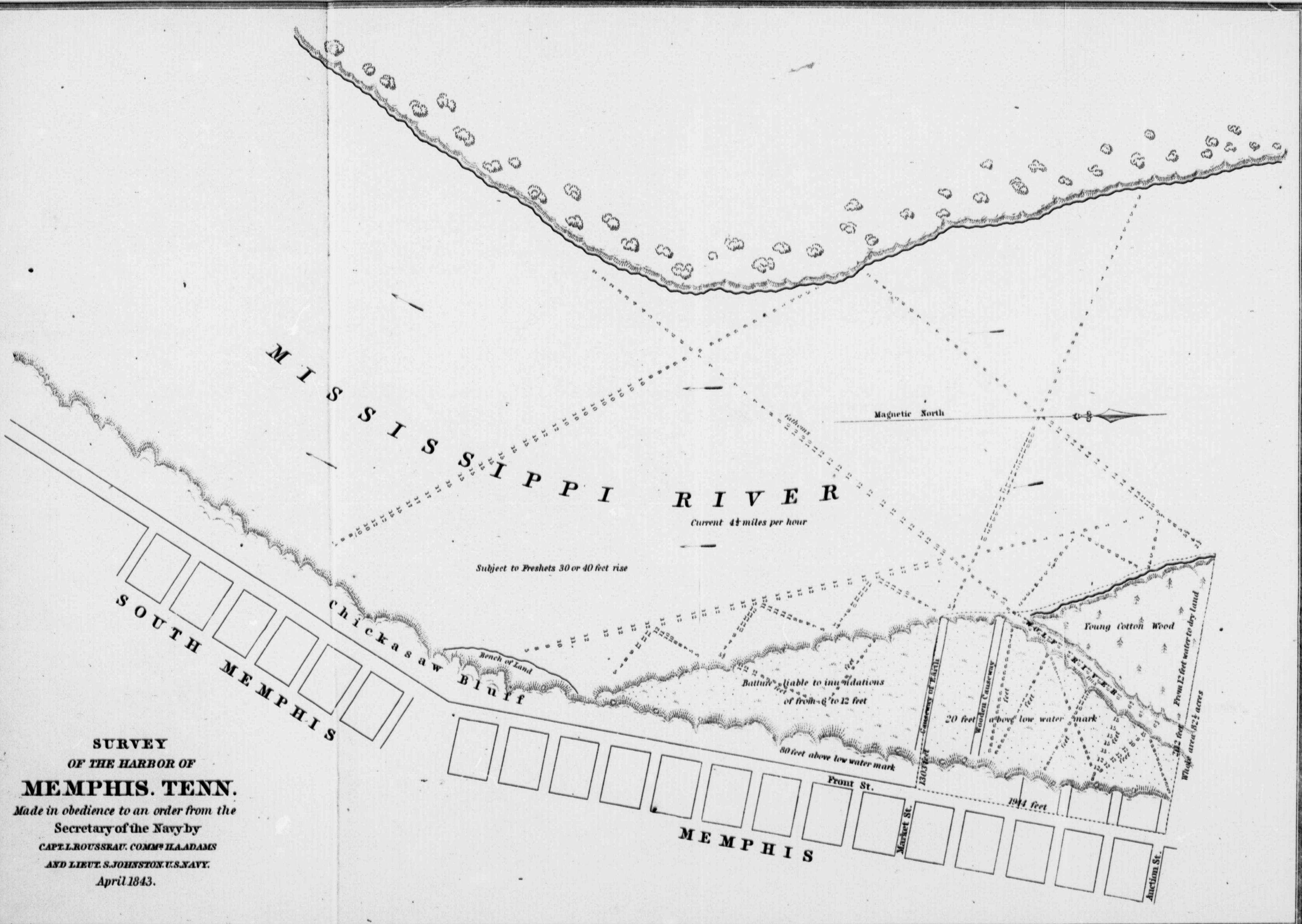
MEMPHIS NAVAL DEPOT.

Mr. J. C. CLARK, from the Committee on Naval Affairs, submitted the following report :

The Committee on Naval Affairs, to whom was referred the memorial of the Legislature of Tennessee in relation to the expediency of establishing a naval depot and dock-yard at the city of Memphis, in the State of Tennessee, have taken the matters therein contained into consideration, and beg leave to submit the following as the result of their deliberations :

The important changes produced by an application of steam in propelling ships of war have been repeatedly noticed in various reports made to both branches of Congress, and it is unnecessary for this committee to go into this subject now. It is enough to say that a most extraordinary change has taken place, and a new era has commenced in maritime warfare, requiring a corresponding change in our preparations for national defence. As long as war ships depended on the winds for their propelling power, with great risk a hostile fleet would dare venture up our streams, and even into or near our harbors ; but now, since they have brought steam to their aid, they will no longer be confined to the bosom of the ocean, but can bring their cannon to bear on our cities and towns, not only along our seaboard, but also on the banks of our large majestic rivers, which furnish the great outlets to our commerce. They will, in time of war, at once destroy our cities and towns, cut off and annihilate our commerce, unless "in time of peace we prepare for war," according to the new forms in which that game of ambition among nations is destined to be played, since the power of steam has been brought to its assistance. This preparation for defence against the rapid approach of hostile fleets, propelled by the powerful agency of steam, must consist, in a great degree, of ships of a similar kind, aided and sustained by floating batteries, and other modes of defence suited to the rapidity with which the attack is made. And although, from our habits of thinking, and the policy of our institutions, it is not supposed that, for a while, our naval force will be greatly increased, yet our preparations for war should be such as to make us feel *that perfect security and consciousness of national strength* that will give dignity and firmness to all our negotiations with foreign nations.

Should war come with any of the principal maritime powers of Europe, the south and west must become an important point of attack. The mighty commerce of the Mississippi and its great tributaries will be blocked up at the very opening of the war ; and there will not, unless the Government acts on the subject, be found the preparations necessary for a suitable defence of that extensive and important region of country. The valley of the Mississippi, it is true, will furnish its half million or million of fighting men, inured to toil and accustomed to danger, who will roll down like a flood on the bosom of the great "father of waters;" but then their valor will be unaided by the preparations which are so essential, and without which victory is hardly to be looked for. If they knew the point of attack, they might, even with a hasty breastwork of "cotton bags," cover themselves and their country with glory ; but then, in this new mode of war to which we have adverted, the point of attack cannot be known. A hostile fleet may come and go with the rapidity of steam, bearing off the wealth of our



SURVEY
OF THE HARBOR OF
MEMPHIS. TENN.
Made in obedience to an order from the
Secretary of the Navy by
CAPT. L. ROUSSKAU. COMM^{DR} U.S. NAVY.
AND LIEUT. S. JOHNSTON. U.S. NAVY.
April 1843.

cities and towns, and the rich commerce floating down the great western waters, before the invincible valor of the adjacent country can come to their rescue. Nothing can save these consequences, except preparations, in time of peace, for the defence of this vast but now almost unprotected region of country.

Preparations for the defence of the south and west being, in the opinion of your committee, absolutely necessary for the protection, in time of war, of the commerce of the Mississippi and its tributaries, it next becomes proper to inquire in what manner and when these preparations should be made, and what should be the location of naval and other establishments necessary to effect this great object.

Hitherto the south and west have comparatively enjoyed but little—in fact, almost nothing—in the way of local advantages, from the navy. This has sprung from causes not now necessary to enumerate. It is sufficient to say, that it has not been because the south and west do not possess advantages and afford facilities for national depots, dock-yards, and other naval establishments, equal at least to other portions of the Union.

The Legislature of Tennessee, in the memorial which has been referred to this committee, invites special attention to the city of Memphis as a suitable point for the establishment of a naval depot and dock-yard. This place, in the opinion of your committee, enjoys great local and other advantages for an establishment of the kind. It is situated on a high bluff, on the left bank of the Mississippi river. The country back of it is well supplied with running streams and springs of good fresh water, and the health is believed to be as good as at any other point on the river. Sufficient water-power for propelling machinery, it is said, can be had at no great expense; so that every circumstance connected with the immediate locality of the place seems highly advantageous for an establishment of the kind proposed.

But other circumstances still more strongly recommend Memphis for its advantages in a national point of view. It is in the interior, eight hundred miles from the mouth of the great Mississippi, with uninterrupted navigation at all times for the largest vessels. It is at a point far enough south not to be disturbed in winter by ice, and far enough north to be saved in summer from the peculiar diseases of the south. It is far enough in the interior to be protected from surprise by a sudden assault from a hostile fleet; and, by the application of steam, is near enough the seaboard to bring its preparations for defence and attack to bear upon the ocean in any and every emergency. It is below the mouths of all but two of the great tributaries of the Mississippi, where the greatest number of efficient volunteers, and the greatest amount of provisions and munitions of war, can be thrown in the least possible time, and at the least possible expense. At no point can all the materials for building steamers and other vessels, and subsistence and supplies of every description, be concentrated so rapidly and at so small expense. A distinguished officer of the navy, in writing of the advantages of Memphis in this point of view, says:

“Instead of carrying the live oak from Louisiana to New York or Boston, for building steamers, as we now do, it could then be carried at half the cost, and only one-sixth the distance, to Memphis. A national dock-yard there would open a market for the hemp of Kentucky, the coal of Pennsylvania, the pork of Ohio, the beef of Illinois, the flour of Michigan,

the copper of Iowa, the lead of Missouri; and for the iron, the mechanical skill, and agricultural products of all these States."

The boatmen on the western waters, from their habits of discipline and energy, acquired by the nature of their employment, will, it is believed, furnish some of the best materials for the navy. The same naval officer, speaking on this subject, says:

"But the revolution which the powers of steam are effecting in the means of maritime warfare, the Mississippi boatmen will be to the navy in the next war, what our Marblehead seamen were in the last."

One other consideration, connected with the peculiar position of Memphis, is worthy of special notice. It is the point selected in 1830-'31 for the western termination of the Atlantic and Mississippi railroad. This road is to run from Charleston, S. C., or Savannah, Ga., *via* Augusta and Greensborough, Ga., Decatur, Courtland, and Tusculumbia, Ala., and La Grange, Tenn., to the Memphis bluff. More than half of this road is completed and in operation; and there seems no reason to doubt the ultimate completion of the balance; so that, ere long, Memphis will not only enjoy the advantages furnished by nature in the gift of the waters of the mighty Mississippi; but, when this road is completed, will enjoy the additional advantages of this great and noble work of art. The communication to the seaboard, through those great channels, will make Memphis a centre, a heart, from which the best blood and energies of war will flow when our country is invaded by land or sea.

These views your committee have thought proper to submit in regard to preparations for the defence of the south and west; the establishment of a naval depot and dock-yard for the purpose, and the advantages of Memphis as a site for its location. To this we will only add one other consideration.

By introducing the navy on the waters of the Mississippi, and calling the valorous and hardy sons of the west into that service, popular prejudices will be removed, which are now so unhappily springing up, because of the supposed neglect of that great region of the country. The distinguished officer of the navy whose opinions we have already quoted, after dwelling on other considerations connected with the advantages of the navy to the south and west, says:

"Greater than all these partial benefits would be the national advantages to be derived by introducing the navy in the west. Her sons would man our vessels sailing thence; popular prejudices against the navy and the sailor's calling would be removed; and, by the force of habit and association, there would be rendered available to the country, in war, the services of eight or ten thousand western watermen, who would man our armed steamers far more efficiently than the seamen of the east. It is important to gain over from these men predilections for the navy; and this can only be done by creating, as it were, a navy in the midst of them; enlisting their sons, brothers, friends, and neighbors in the service; and by affording them all frequent opportunities of going on board, and otherwise being in contact with the public vessels."

With these views and considerations, your committee respectfully recommend the establishment of a naval depot and dock-yard at the city of Memphis, and ask leave to report a bill for a survey and examination, under the direction of the Navy Department with a view to such establishment.

A BILL.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy be, and he is hereby, authorized to cause to be made an examination and survey of the harbor of Memphis, in the State of Tennessee, in reference to the expediency of establishing a naval depot and yard for the building and repairing steam-ships and other vessels of war at that place; and that he report to Congress the result of such examination and survey; and that the sum of three thousand dollars be, and the same is hereby, appropriated, out of any money in the treasury unappropriated, to the expenses of such examination and survey.

[Passed the House August 24, 1842.]

MEMORIAL ON MAIL ROUTES.

This memorial of the chamber of commerce of the city of Charleston, to the honorable the Senate and House of Representatives in Congress assembled,

RESPECTFULLY REPRESENTS:

That it has been reported that an effort is now making in Congress to change the route of the great mail between Boston and New Orleans, from the railway and steamboat conveyances, *via* Virginia, the Carolinas, Georgia, and Alabama, to that of the Mississippi; that a proposition to that effect has been made by a company, which has received the favorable consideration of the Postmaster General, to transport the great mail from the extreme eastern section of the Union, *via* Washington and Pittsburg, or Wheeling, and by steamers on the Mississippi, to New Orleans; thus excluding the whole southern and Atlantic States and cities from the circulation of that intelligence rapid and certain, which is so essential to give life and animation to the commerce of the whole country. The chamber of commerce are at a loss to comprehend, in a territory so extended as that of the United States, embracing twenty-four States, and almost as many latitudes and longitudes, what is understood by the main mail-route between Maine and Louisiana. The four great sections of the Union—eastern, middle, southern, and western—are but parts of one community, through which, as in the human system, to preserve a healthy circulation, many arteries and many veins are necessary. The certain and rapid communication of intelligence from the east to the west, and from the south to the north, are all of equal importance to our common country, and it is the function of the Postmaster General so to arrange these channel-ways of intelligence as to secure the most harmonious circulation throughout the whole—accommodating all, and showing preference to none. Whatever may be the conflicts of rivalry and enterprise in different sections of the country, (and they, after all, do not paralyze, but rather impart animation to commerce,) there should be none in the public conveyance of intelligence, which should be equal and common to all parts of the Union. The chamber of commerce of Charleston are unable, therefore, to comprehend how the importance and necessity (which they readily admit) of a great mail from the eastern to the southwestern extremity of the United States, *via* the valley of the Mississippi,

should be made to come in conflict with, or to supersede, another great mail now in successful operation, and equally as important and necessary, *via* the middle and the south Atlantic States, through Alabama and Mississippi, to New Orleans. The railroads which have already been constructed by the enterprise of the south and west, together with the steamers on the bays and rivers, filling up the connecting links of communication, already afford the most certain and the most rapid conveyance for the mail to the great emporium on the Mississippi; and when those railroads in Alabama, Tennessee, Georgia, and the Carolinas, now in progress, are completed, no route will be able to compete with the southern in speed, security, and certainty. No season can affect it; while, on the Ohio, the alterations in its spring and autumn floods, and the ice of winter and drought of summer, annually present impediments which must render the transportation of the main mail in that direction, for many months in the year, irregular and not to be depended upon. It is the opinion, however, of this chamber, (and they submit it for consideration, with very great deference, to those who will have to decide on it) that a plan of mail conveyances may be matured through the co-operation of the Navy and Post Office Departments, by which the preparations for seacoast and maritime defences may be made subservient to the transportation and protection of the mail, and which may be so arranged as to make both the great channel-ways of communication, *via* the Mississippi and south Atlantic railroads, unite and harmonize for a certain distance on a common route.

The Secretary of the Navy, in his report, has recommended war-steamers for the purposes of defence on the Atlantic seacoast, as well as on the Mississippi river. These boats may be so constructed, and so employed, as to answer the double object of conveying the mail in peace, and of extending protection in war. The mail service, in time of peace, will maintain these steamers at the least cost to the Government, and, by being at all times in active service, a school of instruction, to acquire a knowledge of the machinery, and the best mode of manœuvring that class of vessels of war, will be afforded to the officers and crews that may man them. Should these views meet with the concurrence of the General Government, the chamber of commerce would invite attention to the route *via* the railroads through Virginia, the Carolinas, Georgia, and Alabama, to Memphis on the Mississippi. On this line, not exceeding thirteen hundred miles from Washington, there are already six hundred and fifty miles of railroad completed and in successful operation, and the larger portion of the remaining distance is in progress, and part now under contract. The connecting links for steamers are—1st. Between Washington city and Potomac creek, or Annapolis and Portsmouth, as the Government may prefer; 2d. Between Wilmington, N. C., and Charleston, S. C.; and, 3d. Between Memphis and New Orleans; and, if these gaps in the railway communication are filled by well-planned steamers, adapted to the navigation, this route may not only be made in the shortest time and with great exactitude, but the Government will have always ready for service a home squadron of war-steamers prepared to repel aggression on the Chesapeake, on the coasts of the Carolinas and Georgia, and on the Mississippi. The mail-route will not supersede the one proposed by the Mississippi; on the contrary, it may be made to harmonize with it, as the smaller class of boats, which would be necessary for the Upper Mississippi and its tributaries, might be made to unite with the war-steamers at Memphis; and from

thence, by a common route, all the mails be transported to New Orleans. At no season of the year could the intercourse by this route be interrupted. The steamers from Memphis may be of the larger class, and made equal to the defence of the whole western division of the Union, as the protection of the Mississippi comprehends security to the whole valley. A naval station arsenal at Memphis, and a continuous railroad from thence to Charleston, would extend to the Atlantic all the advantages of protection now enjoyed by the States on the Lower Mississippi; as, by this communication, the militia of the west may concentrate with the same facility, and within the same period, on the frontiers of Carolina, Georgia, and Louisiana.

All of which is respectfully submitted, by order and in behalf of the Charleston Chamber of Commerce.

KER BOYCE, *President.*

WILLIAM B. HERIOT, *Secretary.*

Report of the committee appointed by the board of mayor and aldermen of the city of Memphis.

In obedience to the instructions of the board of mayor and aldermen of the city of Memphis, the undersigned committee, feeling desirous to base all their statements made (in addition to the reports which they are directed to publish) on facts, or the most imposing authority; and believing it important to furnish such facts as would satisfy the public at a distance of the healthfulness of Memphis at present, and disabuse all minds of the impression produced as to the unhealthfulness of this bluff, by the reports of its sickness ten or twelve years since, when there were but a few uncomfortable cabins surrounded by a heavy damp forest, have obtained, and publish herewith, a short report from the board of health, to which they refer.

With this proof of the healthfulness of the city of Memphis, situated as it is at the head of uninterrupted navigation at all seasons of the year for the largest size boats—in a medium climate, free from the chilling frosts of the north, and the relaxing heat of the south, both unfavorable to the full and profitable development of labor, either in the products of agricultural or mechanical operations—the interested inquirer is referred to the engineer's report for the evidence of the important local advantages of this bluff, from the cheap and convenient supply of water-power which may be obtained, to any amount required by the Government for her national armory and naval depot and dock-yard, and for all other purposes of manufacturing that may be profitably and usefully adopted.

Connected with these important local requisites, mildness of climate, healthfulness, and ample supply of water-power, the country contiguous furnishes a varied soil, peculiarly well adapted to the production of all the essential articles of subsistence; while with these are to be found as much healthfulness, with as many conveniences for obtaining the comforts and luxuries of life, as in any other portion of country in the Ohio or Mississippi valleys—making it peculiarly desirable as a residence for the capitalist seeking a country affording comfort and convenience, and, at the same time, the widest field for active enterprise, either in agriculture or manufacturing.

Our own observation is confirmed, by the testimony of many intelligent and experienced farmers from the old States, to the fact that the extensive country east of Memphis is peculiarly adapted to the production of all the various kinds of grain and grass, and the growth of all kinds of stock. At present, the country is but partially cleared up; and the culture of cotton, requiring less open land for a given number of hands than grain crops, is the staple; but as the lands are cleared, and manufactories are introduced, the system of agriculture will be changed. To bring about this result, many of the planters have expressed great solicitude that the projected canal be made, and that wheat-mills and other manufactories be established; and propose, if the Government does not make the canal for her public works, or it is not made by the corporation, that it shall be done by a company, formed of the planters of the country, with their own hands.

The farmers and planters of the country have two objects in the establishment of manufactories with water power: one is, to get their wheat (which they can raise with great success and certainty) manufactured into flour, so as to avail themselves of the early southern market, before supplies from the upper country can be furnished; and the other is, to create a steady market at home for their surplus provisions.

Such is the character of the country and the climate, that it is believed if a steady market were opened by the establishment of manufactories in this vicinity, in a short time supplies of provisions would be furnished by the contiguous farmers as cheaply as at any point in the United States. This result would necessarily be secured by the competition perpetually existing between the supplies furnished from the contiguous country, and the unlimited amount of supplies capable of being furnished from all the country above, by the cheapest possible mode of transportation. Without the full development of the neighborhood competition with the river supply of provisions, they are now sold at nearly as low a price here, as at the important towns above.

Occupying, then, a medium position between the producing and consuming portions of country, where the great Mississippi, from all its tributaries above, floats down, at the cheapest possible rate, all the necessaries for subsistence afforded in the upper country; where the contiguous country is capable of furnishing all these supplies in abundance; where water-power of any necessary amount for manufacturing can always be had; where the materials for cotton and various other manufactures are produced, or can be cheaply and conveniently procured; and where the market of the west and south is more accessible and convenient for all kinds of manufactures, at all seasons of the year, than at any other point where manufacturing is now done,—it may be assumed that no point in the United States holds out greater, or even the same advantages and inducements for enterprise and the investment of capital in manufactories.

Without chilling frosts and ice to cause the hands employed to shiver away the winter mornings, to lock fast the water-wheels of the machinery, and to obstruct the navigation by which the supplies are obtained, and the manufactured articles are cheaply and swiftly wafted to the distant western and southern markets, incident to the more northern country where manufacturing is now mainly done; and near the centre of the great valley of the Mississippi, where much of the meat and bread that sustain the north-eastern manufacturers are produced, and whence much of the raw materials are shipped to them, to be returned when manufactured, taxed with the

expense of two long voyages back to the western and southern market; the manufacturer here might realize all this expense of shipment in the increased profits of his labor, together with a greater degree of comfort and productiveness in his operatives.

The prominent advantages of Memphis over any other point in the west or south for the location of the national depot and dock-yard, (and the same reasons apply with equal force in favor of the location of the western armory,) in addition to its geographical position, are so ably set forth in the report of the Committee on Naval Affairs to Congress, that but little is necessary to be said by us, more than to refer it, and express our gratification that a place so new, and a country so early in its progress of settlement and improvement, should have its advantages so well understood abroad.

In addition, however, to the general view which is presented in this report, of its geographical position, its local advantages, the favorable character of the country, the cheapness and convenience of getting supplies of all kinds, the certainty and facility of embarking troops and munitions of war to all parts of the west and south without obstruction from ice or low water, is the benefit to the national navy to be derived from its introduction upon the waters of the Mississippi, by familiarizing the thousands of western boatmen with, and breaking down their prejudices against, naval life; and thus inducing them to man the naval war-steamers more efficiently than could be done by eastern sailors; and the great national advantage of having all these requisites for defence in war at a position available at all times and in all seasons of the year for concentration at any point on the western frontier, or the southern Gulf coast. Some other facts need to be stated to show fairly the comparative advantages of the city of Memphis with other points proposed for the location of the national armory and dock yard.

Mr. Clark's report shows clearly that, in a national point of view, from the geographical position of Memphis, her claims are unrivalled—being at a sufficient distance in the interior to prevent surprise from the assault of a hostile fleet; and, by the application of steam, near enough the seaboard to bring its preparations for defence and attack to bear upon the ocean in any and every emergency; below the mouths of all but two of the great tributaries of the Mississippi, where the greatest number of efficient volunteers, and the greatest amount of provisions and munitions of war, can be thrown in the least possible time, and at the least possible expense; where all the materials for building steamers and other vessels, and subsistence and supplies of every description, can be concentrated with more certainty and facility, and at less expense than any other.

With these facilities afforded the Government by a location at Memphis, a greater extent of country would be benefited, by furnishing "a market for the hemp of Kentucky, the coal of Pennsylvania, the pork of Ohio, the beef of Illinois, the flour of Michigan, the copper of Iowa, the lead of Missouri, and for the iron, the mechanical skill, and the agricultural products of all these States."

While these benefits would be afforded all the States above, by creating a market for their various products, the numerous and abundant sources of supplies of everything required would, by competition, always insure their procurement at a fair price, and often less than the market price in the neighborhood where they are produced.

In demonstration of this fact, Kentucky or Indiana coal can be bought

here, in large quantities, at 6 to 8 cents, and Pittsburg coal at 8 to 10 cents a bushel; when it is sold higher, at retail, a short distance from the mines. Bar iron, in large quantities, can be bought at 4 to 4½ cents per pound, and pig iron at \$20 to \$25 per ton; and it is confidently believed that at all times large contracts can be made, from the effects of competition between the numerous iron-works above, at a lower price, for its delivery here, than it could be purchased at any one of the works above, without the influence of competition.

The same fact exists in reference to other necessary supplies. Lumber is sold at the landing here, for cash, at less than the ordinary price in the upper country, and can always be purchased at but a small advance on the actual cost at the mills, from the cheapness of flat-boat transportation.

For ship-building, the surrounding country abounds in almost every variety of timber; and the flats of Wolf and Hatchie rivers, especially, afford an inexhaustible supply of oak, which is considered by competent ship carpenters to be but little inferior to live oak for strength and durability. This oak can be floated down those rivers to Memphis at but little expense. The construction of the canal, for water-power, would open the cheapest and most convenient outlet possible for a large supply of this timber, upon which it could be conveyed to the mills, and thence to the dock-yard by water.

We might greatly enlarge these views, by showing the extensive connexion of Memphis with the western, southern, and eastern portions of the United States, by land communications, in addition to her unrivalled facilities for water transportation.

The Government road from Memphis to Little Rock, in Arkansas, would require but a small appropriation to complete it to that point; and thence, the country is favorable to improve, at a small expense, the communication by land to the southwestern frontier posts on Red river, &c.

The connexion by railroad between Charleston, South Carolina, and Savannah, Georgia, and all the intermediate points to Memphis, (as has been correctly shown in Mr. Clark's report,) is so far completed and in operation, and the balance of the way so practicable, and so important to be made, that no reasonable doubt can exist that it will [not] be many years before it is all finished, and in successful operation.

No line of communication between the Atlantic border and the Mississippi valley presents the same advantages for railroad travel and transportation, on account of the favorable character of the country through the entire route, requiring neither inclined planes nor tunnels; the consequent cheapness of its construction; the certainty of its unrivalled success and profit, from the large amount of transportation of produce, merchandise, and travel over it.

Upon this route, when complete, the time required to travel from Memphis to Washington city will not exceed four days, allowing fifty-four hours to make the trip from Memphis to Charleston, a distance but little greater than from Charleston to Washington, which now only requires about forty hours; affording not only great rapidity to the travel of the country, but greatly increased promptness, speed, and certainty in forwarding despatches from the capital to the southwestern country, and concentrating from thence forces, supplies, and munitions of war, upon the southeastern Atlantic border.

The present route from Memphis, up the Mississippi and Ohio rivers, and across the country, to Washington, requires in a good stage of water about

twelve or fourteen days; down those rivers, from Washington, about nine to eleven days; but in the fall and winter, when the navigation of the Ohio river is obstructed by low water or ice, the time is uncertain, and the route is often impassable.

With these facts, it requires only a glance at the map of the country to be satisfied not only of the large amount of freight that must be carried over this road, from the intermediate country to the markets at each extremity, but of its unparalleled advantages for general travel to the country, and for transportation to the Government.

The chamber of commerce of the city of Charleston, South Carolina, last winter based a memorial to Congress on the superior advantages of this route, and the important position of Memphis, (to which we respectfully refer,) praying the establishment of two great mail lines from Washington city to the southwest—one by the way of Charleston, and the other by the way of the Ohio and Mississippi rivers—both to concentrate at Memphis; whence, to and from New Orleans, the mail to be carried on a regular line of Government war-steamers, to be used for this purpose in time of peace; and as a school for the navy, so as to be ready manned at all times for war. With such an array of advantages, so far acknowledged by the Committee on Naval Affairs, and by the Charleston chamber of commerce, as to induce them to recommend Memphis to Congress, without a rival, for the naval depot and dock-yard; and for the point of connexion of the two great mail lines between Washington city, and uninterrupted navigation on the Mississippi river; whence, to and from New Orleans, to be carried in Government war steamers. It seems needless for the committee to say more in favor of the claims of the city of Memphis for the location of the western national armory and western naval depot and dock-yard.

We cannot close this report, however, without craving the attention of the Government to the great extent of the valleys of the Mississippi and her tributary rivers, their immense wealth and large population, constituting nearly a moiety of the whole population of the nation—all of which are identified in interest, in the means and preparations for protection and defence of their frontier, and especially of their great emporium, the city of New Orleans; and that, to the present moment, this portion of country has not been furnished by the Government with an armory or naval dock-yard, to supply it with arms, floating batteries, or steam ships of war, for its protection and defence; its Crescent City being thus left exposed and defenceless, to be sacked and destroyed by the first assault of an enemy, and the whole country to feel and participate in the loss.

Having presented the claims of Memphis upon the General Government, for the location of these works, from her local advantages, her facilities for uninterrupted navigation, and her unrivalled military position in a geographical point of view, for convenience and utility; and having pressed the importance and necessity to the west and southwest of the immediate establishment of these works by the Government; we may, without ostentation, present a few considerations which we think ought, and will, unite the whole south and west in favor of this point.

In pursuance of the instructions from the President, the commissioners sent out to select a location for the western armory are limited to uninterrupted navigation, and to Memphis as the most southern point; and the Committee on Naval Affairs recommend Memphis, without a rival, for the location of the western naval depot and dock-yard. Neither Arkansas,

Louisiana, Mississippi, nor Alabama, has a point, within the instructions of the commissioners; nor will they propose one within their limits.

It behooves them, then, as well as the other southern States, to obtain such a location as will be most convenient, and at all times make the necessary preparations for their defence at all important points most available, both by water and by land. They have, therefore, to select between Memphis, with uninterrupted navigation, and great facilities for land communication with portions of them, and some point on the rivers above, to which navigation is interrupted by low water and by ice, and for which no suitable land communication can be substituted. The States above, on the Ohio, Mississippi, and Missouri rivers, as well as the State of Tennessee, on the Cumberland and Tennessee rivers, will enjoy all the advantages in getting Government supplies from Memphis that the interrupted facilities of navigation on those rivers could possibly afford the southern States if the location were made on either of them above: while the location at Memphis would be more national in every point of view; affording prompt and certain supplies, at all times, for the defence of the most vital and important point in the south and west—the city of New Orleans—and also the Gulf coast; affording as much promptness and certainty as any other in getting supplies for the protection and defence of the whole western frontier border; and affording (what is the most important benefit of these Government works to the more interior upper States) a market for their supplies of every kind—open equally to them all, and accessible by the cheapest and most convenient transportation possible for heavy products, in flat-bottom boats down stream.

Many valuable facts and considerations on this subject, and the unrivalled importance of Memphis in a military point of view, have been presented by Major General Gaines, in his reports to the War Department, to which reference is respectfully solicited by the committee.

EDWIN HICKMAN, *Mayor.*

LEWIS SHANKS,

E. H. PORTER,

W. A. BICKFORD,

CHARLES POTTS,

EDWARD S. TOD,

} *Aldermen.*

} *Civil Engineers.*

Report of the Board of Health.

In compliance with the request of the committee appointed by the board of mayor and aldermen, to the board of health for the city of Memphis, for such facts as may be furnished in reference to the health of the city, the board report: That the number of cases of sickness, and the number of deaths, in proportion to the population, have diminished annually since the bluff has been clearing up, and the freshness and dampness of the soil have been lessened by trampling and the improvement of the streets, and more regard has been paid to healthfulness and durability in the style and materials of the buildings; that this progressive improvement in health may confidently be expected; and that, for health, Memphis will bear a favorable comparison now with any town upon the Mississippi or Ohio rivers.

Without encumbering this report with other facts on which this opinion is based, the number of deaths that have occurred during the past summer,

from the 1st of June until the 1st of October, is given. This aggregate number of deaths includes all that have occurred in the city, both strangers and citizens, during four months; and is made up from the weekly reports that have been published.

Adult male residents	-	3	Adult male strangers	-	5
" female "	-	5	" female "	-	2
Children	-	12	Children	-	7
		20			14
					20

Making an aggregate of 34

The population of Memphis proper, exclusive of the suburbs, South Memphis, and Fort Pickering, is estimated at near 4,000; which makes about the rate of one and a half per cent. of citizens, and two and three-fourths per cent. of citizens and strangers together, per annum, to have died in four months, embracing the sickly season of the year.

LEWIS SHANKS, M. D.
Secretary of the Board of Health.

MEMPHIS, October 1, 1842.

At a meeting of the board of mayor and aldermen of the town of Memphis, held on the 4th day of May, A. D. 1843, for the purpose of securing to the Government of the United States the ground surveyed in front of said town, by the commissioners for the national navy-yard and depot, the following act was unanimously passed by said board, to wit:

Be it enacted by the mayor and aldermen of the town of Memphis, That, for and in consideration of the sum of twenty thousand dollars, when paid, the mayor of said town be, and is hereby, authorized and required to make a deed conveying to the Government of the United States the ground surveyed by Captain Laurence Rousseau, Commander Adams, and Lieutenant Stephen Johnston, commissioners on the part of said Government for making a survey of the harbor of Memphis for a naval yard and depot, so long as it shall be used for that purpose, if said location be made within two years—said ground situated and lying and being in the front part of said town, and bounded as follows, to wit:

Beginning on the Mississippi river, on a line with the south side of Market street, extended to said river; thence running obliquely across Market street, extended over the batture to the north side of Market street; within one hundred feet of the houses on Front row; thence north, along the west side of Front and Chickasaw streets, to the south side of Auction street; thence west, with the south line of said street, to Wolf river; thence the same line continued from the west side of Wolf river to the Mississippi river; thence down the Mississippi river, to the north side of Wolf river, at its mouth; and thence, from the south side of Wolf river, down the Mississippi river, to the beginning: to have and to hold the same for the purpose above mentioned.

EDWIN HICKMAN, *Mayor.*

J. H. LAWRENCE, *Recorder.*

MEMPHIS, *November 9, 1843.*

At a meeting of the mayor and aldermen of the city of Memphis, on the 8th inst, it was unanimously

Resolved, That the corporation of the city of Memphis, in the State of Tennessee, hereby propose and bind said corporation, if the Federal Government locate the naval depot and dock-yard upon the site fixed upon by the commissioners at Memphis, to furnish the Government perpetually, from the time that may be agreed upon by the parties, two hundred horse-power, and as much more as may be deemed necessary for Government purposes, of water, at the basin, at two-thirds the cost of steam power per annum; and guaranty the right of way for conveying the water from the basin to the dock, a distance of one hundred and twelve poles.

Resolved, That the mayor forward a copy of the above proposition to the Secretary of the Navy, signed and sealed in due form.

E. HICKMAN, *Mayor.*

J. H. LAWRENCE, *Recorder.*

MEMPHIS, TENNESSEE, *October 28, 1843.*

SIR: Agreeably to the orders of the honorable the Secretary of the Navy, we have revisited and continued our examination of the harbor of Memphis, and have the honor to report as follows:

We find the batture and low grounds, adjacent which, at the time of our first visit, were covered with water, now bare and dry, and at an average height of nineteen feet above extreme low water. That part of the batture embraced in the proposed site for a naval depot was not increased in surface by the overflow in the spring, and received but a very small deposit from the river.

The soundings taken at this time show a variation to have taken place both above and below the mouth of Wolf river. Above the mouth, the Mississippi has deepened its bed six feet; while, below, it has shoaled three feet. The channel of the river has received no new direction; and the batture appears to have reached its limits. With a view to ascertain the quality of soil below the bed of the river, we made experiments by boring in various places above and below the mouth of Wolf river; and found, at an average depth of twenty-five feet below the present surface of the river, and about fifty feet below high water, hard bottom, apparently rock, or a conglomeration of gravel and other substances. From the imperfection of our implements, it was impossible to ascertain its character with more exactness. In passing downward through the batture, it was found to be saturated with water at and below the level of the river; forming a sort of quicksand, with occasionally a thin stratum of hard earth, but not of sufficient firmness to support piles driven into it against the operations of the river, should its force be turned against them. The hard bottom below offers a better foundation. While the Mississippi continues to run in its present channel, it would, perhaps, be unnecessary to secure the bank by piles; boring and filling up would be ample protection. Should any future change throw the current against this side, it will then be indispensable to protect it either by mason-work from the rocky foundation, by piles, or by some other effective mode. A group of islands immediately above Memphis divides the river into several branches, which are united again

before passing the city. It is thought practicable to prevent the river from setting against the Tennessee shore, (should it ever appear inclined to take that direction,) by obstructing the passage between two of the islands, or between an island and the main land, so as to force it into other channels.

In our former report we stated that water-power could be obtained by a canal from Wolf river, at a point about eleven miles and a half distant, by a route which we have examined; and that a right of way for such a purpose would be given to Government. Since then, arrangements have been made to construct this canal at the expense of the city. It is contemplated to reserve a sufficient amount of the water-power it will furnish, for the use of the navy-yard, should it be established here. Distinct propositions on this matter will be transmitted to the Navy Department, by the city authorities, as soon as the surveys and estimates are completed.

With regard to all other points to which our attention was directed, the results of our present examination and inquiries confirm the opinions, and establish the facts, set forth in our former report.

We have the honor to be, very respectfully, your obedient servants,

L. ROUSSEAU, *Captain.*

H. A. ADAMS, *Commander U. S. N.*

S. JOHNSTON, *Lieutenant.*

HON. DAVID HENSHAW,

Secretary of the Navy, Washington city.

No. 18.

REPORT ON THE CULTIVATION OF HEMP.

Report of the superintendent of the experiment upon the culture and manufacture of hemp, from the time of planting until the hemp is fitted for the brake; containing, also, remarks upon a method for the introduction of the culture and manufacture of hemp among the hemp-growers in the United States, so as to produce a sufficiently strong article for naval purposes.

The Hon. A. P. Upshur, late Secretary of the Navy, evinced great interest in the introduction of a method of cultivating and manufacturing hemp as done in Russia, where the best hemp is obtained for naval uses.

Such a desire having been made known to me, I framed a short and condensed memorial, setting forth the method of cultivating and manufacturing hemp as done in Russia, my native country.

The said memorial was submitted to the Hon. Secretary of the Navy by Col. G. L. Thompson, chief engineer of the United States navy, who also expressed great interest therein.

Near the expiration of the last session of Congress, a printed report, containing 200 pages, was received from Odessa, of an examination into the culture and manufacture of hemp in all of the hemp-growing countries of Europe, by Mr. Butowsky, an officer of the Russian Government; said report was printed at St. Petersburg, by order of the Minister of Finances, in the year 1842.

The report being in the Russian language, I offered myself as translator to the Hon. A. P. Upshur; who consented, with the remark that Congress had ordered a translation, and that a bill had been brought before the Senate for an appropriation to meet the expense, but Congress adjourned without passing the bill. I therefore undertook the translation, with the hope that Congress would, at their next session, pay me for my work, which is nearly completed, and only awaits the necessary corrections previously to going to press.

From the circumstances mentioned, the Hon. A. P. Upshur determined to make an experiment upon a small scale, for the purpose of ascertaining the possibility of obtaining an article similar in quality to that of Russia. I had the honor to be intrusted with the superintendance, and am still zealously engaged in completing the experiment.

Besides being a native of Riga, in Russia, where the best hemp is cultivated and exported, I have enjoyed the additional advantage of practical experience in the culture of this article, for many years, upon my plantation in the valley of the Wabash, in the State of Indiana; added to which, the information obtained from the translation, now before me, of the latest reports of the principal hemp-growing countries of Europe, enables me to contrast the different cultures, so as to draw a result highly beneficial to the United States, and, if practically pursued, must end in the production of an article equally strong, if not stronger than the Russian hemp.

The mode of cultivating hemp in Russia is not materially different from that of other countries, as may be seen by comparing the memorial made by me with the translation of the report of Mr. Butowsky; nor has the process received much alteration for centuries. Improvements have daily progressed in every branch of business, while this most important culture remains almost entirely neglected, and still shackled by prejudice and old custom, the worst enemies of husbandry.

Other means, even in this enlightened country, must be resorted to, than printed instructions, which are read by few, and seldom practised. It is Government, and it alone, that can remove the obstacles that now clog this most important branch of farming; and if pursued in a proper way, so as to hold out inducements, the effect will be soon visible; nor will the time be far distant when, instead of paying millions of dollars to foreign countries for supplies necessary for the navy, it will be found to be an article of considerable export.

The several monthly reports, submitted previously, contain all the details of the experiment, and shall be comprised in a general report to the committee that may be appointed, in time to investigate the comparative strength of Russian hemp and that produced by the experiment—together with the operation of the newly-constructed hemp-brake.

Even in the most approved mode of curing water-rotted hemp, as practised until now, it will unavoidably occur that some of the fibres of a weaker stalk will begin to decompose before the stronger are ready to be removed out of the fluid. To remedy this, the hemp is generally removed from the water before the time the process has been completely finished; then the stalks are spread upon the ground, exposed to the weather until it appears that the woody parts separate with ease from the fibres; but even with the best attention, it is impossible to prevent some of the fibres from decaying before the period of gathering has arrived. This latter part of the process is a part of dew-rotting.

The process of dew-rotting, especially when the hemp stalks are piled together in large cones, and suffered to remain so all winter, (a common practice among the hemp-growers both of Indiana and Kentucky,) should be entirely abandoned, as it gives the product a very dark color, weakens it, and renders it unfit for naval purposes.

In an experiment made upon my farm about twelve years ago, I found if the hemp stalks were pulled in proper time, the seed and buds cut off, and set aside in a dry airy place until perfectly dried, then heated artificially not above 212° Fahrenheit, that though when exposed to the brake the woody parts did not give way so readily as the water-rotted hemp, yet, after working repeatedly, the fibres became sufficiently clean; the hemp so obtained had a yellowish-green color, soft, and resembling silk, being much superior in strength to the hemp cured in the ordinary way—for the reason, that the fibres are not weakened by decomposition, but retain all the strength that nature has bestowed upon them. Some small samples, prepared in the abovementioned manner, have been submitted to the department, accompanying the monthly reports.

The new hemp-brake, now being finished, is solely calculated to break green hemp. Should it answer the expectation and purpose, it would be a matter of the greatest importance and consideration, as it would entirely remove the necessity of resorting to the most disagreeable and troublesome process of water-rotting. The farmer could then pull his hemp with ease

and at his leisure, without being compelled to have it all pulled in one day, as in the case of water-rotted.

Twenty or more hands are necessary to gather an acre of hemp-stalks—a number much too large, as I know from experience, to be readily obtained in a free State; and this is the strongest reason why the farmer in a free State is compelled to confine himself to a very small portion of his farm for hemp-growing purposes. Whereas, if the mode of manufacture of the green hemp were generally introduced, the free would enjoy equally with the slave State both in quality and quantity of their hemp.

It is well known that tobacco yields a large profit when cultivated upon a rich soil; but the number of hands and the attention it requires forever place it out of the power of a free State to cultivate it to any extent. Hemp yields a still greater profit from an equal portion of ground; and, if treated in the process mentioned with regard to green hemp, there would be less trouble than in the cultivation of potatoes, and the product would be superior in strength to the best Russian hemp.

An important remark is necessary to be made in the culture of hemp. There are two species, viz: male and female; the former being entirely distinct from the latter—one bearing only flowers and extended branches at the top; the other, seed gathered closely together in buds. The former, or male, is fit for pulling about six weeks before the female; and affords the softest and finest fibres, well adapted for the spinning-wheel. The male should be pulled as soon as the blossoms and lower leaves drop; the female, when the lower leaves have fallen, and the greatest part of the seed ripened. (All of the seed of hemp do not ripen at the same time; consequently, a part of the seed will still be green when the hemp is gathered.) The seed should be separated from the stalks, together with the buds that enclose the seed, and placed in a shady and airy place to dry. After this, the seed should be separated from the buds—a process attended with some difficulty, as it cannot be thrashed out, like other grain, without injuring it for further use. It should be rubbed. For the purpose of procuring the seed without injury, I have invented a very simple machine, which answers admirably, and intend to submit it to the committee.

The time of pulling the male hemp is generally neglected by all the hemp-growers in the United States, (to my knowledge.) By such neglect, the farmer not only loses nearly one-fourth of the whole product of his best hemp, but, by suffering it to remain standing perfectly dry among the green hemp, when exposed together to the process of either dew or water-rotting, it becomes decomposed before the green hemp is finished, and also spoils the color and corrupts the quality of the female hemp.

It may appear difficult to gather all the male hemp, in a large field, from the female plants. This is very easily remedied, by ploughing furrows at a parallel distance of eight feet, which will act as a guide, and suffer the male to be gathered without molestation or injury to the other kind.

The experiment of cultivating and manufacturing hemp was commenced in April, on a piece or lot of ground No. 9, in square No. 20, in the city of Washington, belonging to Captain W. Easby, containing seven thousand nine hundred and sixty-three square feet. It was not so well calculated for hemp culture as it first appeared to be; but, as the season was so much advanced, no choice was left. The seed sprouted badly, as the weather was directly opposite to that which it should have been to produce a good crop. The plants near the fence grew to the height of six feet; while those in the

centre of the lot only attained that of three or four feet; so that the crop can by no means be pronounced fair. Still, if it can be proved that the fibres obtained from short and weakly plants should be equally strong, if not stronger than the best Russian hemp, then it will be evident that the treatment, as practised in the experiment, is to be preferred to any other.

My view was to find a solvent to separate the resinous substance from the fibre, without resorting to immersion, or dew or water rotting. The following trials have been successively made, namely: 1st, a solution of sulphate of soda; 2d, a solution of carbonate of soda; 3d, a solution of sulphate of iron; 4th, some cured with tan; some in a liquid that underwent fermentation. All of these experiments produced hemp which differed but little from that cured in the ordinary way, with the exception of the color. It appeared, further, that the hemp cured in a solution of the sulphate of soda appeared much stronger than any before mentioned; but this fact shall be ascertained in time, by a trial of the comparative strength between those named and the Russian hemp, before the committee.

The samples of hemp submitted to the Navy Department are of the following descriptions, viz:

- 1st. Green male hemp.
- 2d. Green female hemp.
- 3d. Water-rotted male hemp.
- 4th. Water-rotted female hemp.
- 5th. Dew-rotted hemp.
- 6th. Hemp cured in solution of sulphate of soda.
- 7th. Hemp cured in solution of carbonate of soda.
- 8th. Hemp cured in solution of sulphate of iron.
- 9th. Different samples cured in tan.
- 10th. Cured in a fermenting fluid.
- 11th. A sample of male hemp which was left on the field, and pulled together with the female. This latter sample will show how weak the fibres of the male are, when left on the field longer than it should be. This neglect is exceedingly common, as before mentioned.

Should this sample be exposed together with the female hemp, which at that time was perfectly green, to dew or water rotting, it would only be with the greatest attention cured, and would injure the color and quality of the whole, in addition to a loss of one-fourth.

The different solutions did not answer the expectation in dissolving the resinous matter. A curious circumstance was discovered in the application of alcohol, which readily dissolved the resinous matter; but, after evaporating the alcohol, and making a second application of it, it was found to be insoluble, though it dissolved easily in water—altering the matter, however, from resin to gum. Further experiments will no doubt lead to satisfactory results. Such a discovery may prove useful in the manufacture of hemp.

Government, in her wise decision, has now made the first step towards the encouragement of this very important branch of husbandry, by appointing agents in Kentucky and Missouri to investigate hemp that may be fit for naval service. It saves (as it has been remarked) the farmer a disappointment when he enters the market; but this is the limit. Should his produce be rejected, he returns home without being informed as to the mode of improving his culture. Therefore, if I am at liberty, I would respect-

fully suggest that the agent should not only be the examiner of hemp for Government, but that he should take a warm interest in the culture of this useful product himself, and be fully competent to instruct the farmer, so that he would be enabled either to avoid or correct his mode of cultivating hemp, in a language to be comprehended by the countryman. The method of holding out the prospects of a better price next season, would operate more advantageously than many printed works and systems. Further, each agent should have in cultivation some few acres every year, to show practically a systematic operation, where any man who wished to learn the cultivation in all of its branches might be admitted, and assist in working the same. Slaves might also be sent by their masters for a season, for instruction, free of expense, with the exception of their board. It appears to me that this mode of operation would soon produce a new era in the manufacture of hemp all over the United States; and it may, knowing the enterprising spirit of the people, in a short time not only produce a supply for home consumption, but leave a large surplus for export.

I would further suggest, that in every State, advantageously situated for this species of produce, there should be an agent appointed, as before mentioned. The expense for such an establishment would, in a short time, be amply repaid, as has been the case in the cotton and sugar plantations, who date their existence from the time Government held out inducements; and there is no doubt that such will be the case with hemp manufacture.

It is known by the report of the Russian officer, Mr. Butowsky, which I am translating, that Italy produces the finest and best hemp, for linen and sail-cloth, in Europe.

Italy is between 40 and 45 degrees latitude, being a peninsula. Florida is between 20 and 30 degrees latitude, also a peninsula. It is also known that the temperature in the same latitude is much lower in the United States than in Europe, and that the temperature of Italy and Florida is very much the same. But we have much richer land in Florida than they have in Italy, except near the volcanoes: therefore, better hemp could be produced more advantageously in the former place.

Should some of the numerous swamps in Florida be drained, (which might be easily done,) no better soil could be found. Then, if the Government should hold out proper inducements, immigrants would flock to that country, and in a short time make her to this country what Italy now is to Europe.

The beforementioned translation from the Russian language, upon the subject of hemp culture, shall be finished and corrected in a few weeks, ready for the press.

I would respectfully ask leave to append to the translation such remarks as I shall deem, in accordance with my own experience, most expedient for the use of the United States.

All of which is most respectfully submitted by

Your most obedient servant,

PETER VON SCHMIDT,

*Superintendent of the experiment upon the
culture and manufacture of Hemp.*

HON. DAVID HENSHAW,
Secretary of the Navy.