

**REPORT**

OF

*Maj. Gen. Alex. Macomb, Chief Engineer,*

TO THE

**SECRETARY OF WAR,**

In relation to the nature and extent of the work done, and the materials delivered

AT THE

**SEVERAL FORTIFICATIONS,**

VIZ:

*Forts Delaware, Washington, Monroe, Calhoun, and Rigolets,*

Under the appropriation for the year 1822.

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**JANUARY 23, 1823.**

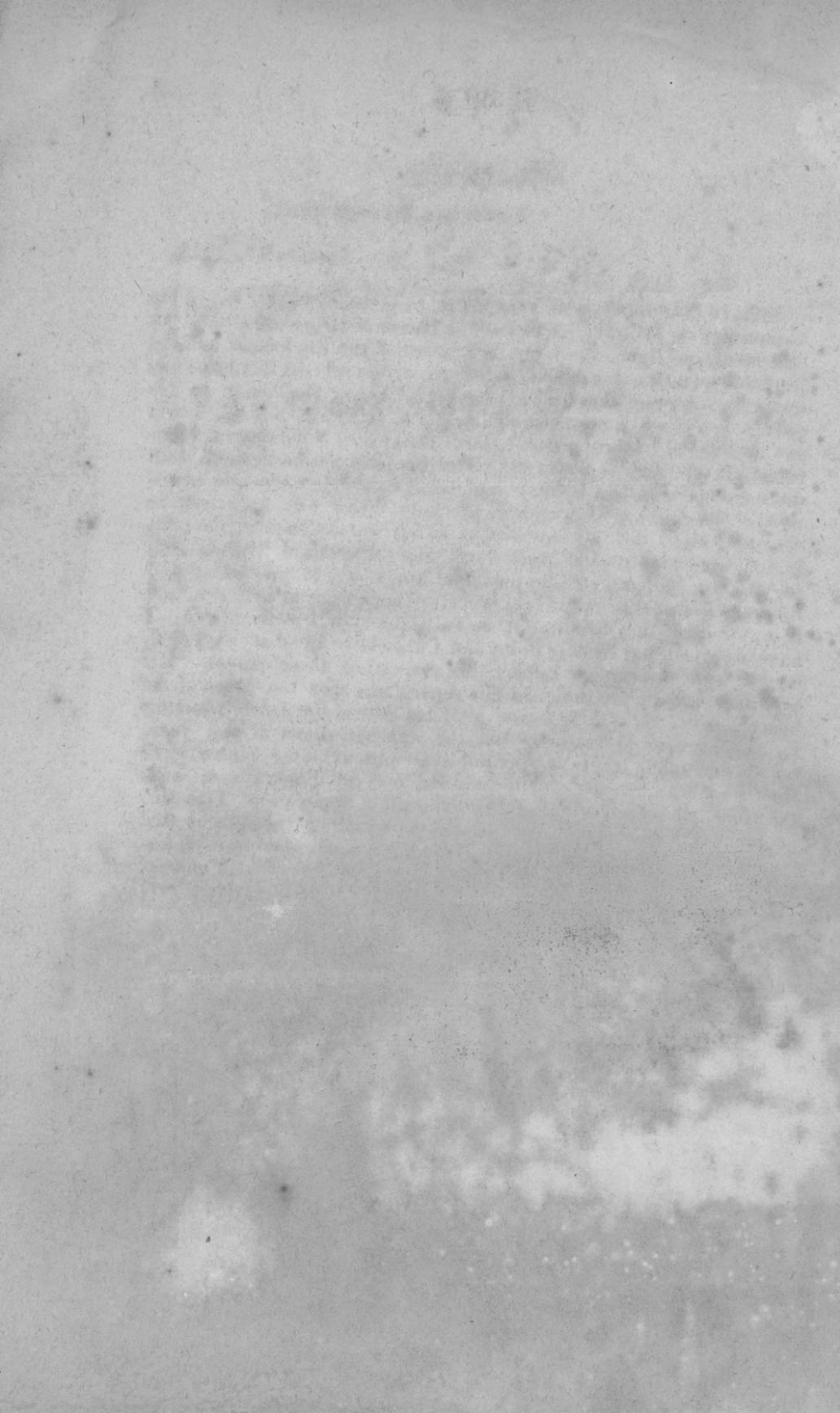
Laid before the House by the Chairman of the Committee on Military Affairs, and ordered to be printed.

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**WASHINGTON:**

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**1823.**



## ENGINEER DEPARTMENT,

January 17, 1823.

SIR: In compliance with your order, to prepare, for the use of the Committee on Military Affairs of the House of Representatives, "a statement, specifying the nature and extent of the work done, and the kind and quantity of materials delivered, at the several fortifications, under the appropriation for the year 1822," I have the honor to report, herewith, five statements, marked A, B, C, D, and E, which are applicable, in their order, to forts Delaware, Washington, Monroe, Calhoun, and Rigolets, and afford the information desired, with more distinctness than if they had been consolidated in one statement. They are more complete, probably, than was expected, as the application they are intended to satisfy did not require the cost, but only the quantities of work done, and materials delivered; and, very likely, contemplated the principal kinds only of the latter: but it required very little additional labor to make them as they are, and it was thought they would not be satisfactory if less complete. I have to regret, that Mobile Point and Plaquemine Bend are excluded, for the want of requisite information respecting those points. My solicitude to embrace these, in this report, has been the cause of its being delayed for so long a time after the date of the order requiring it. It is proper to remark, that the appropriations of last year, which were made in May, were not available at those places until the summer, when the warm weather prevented operations; and, therefore, would not admit of their immediate application. This impediment, together with the sickness prevailing throughout that country, continued until late in November; and, therefore, no disbursements could be made, at those places, until the fourth quarter of last year, the accounts for which have not yet been received.

Respectfully submitted.

ALEX. MACOMB,

*Maj. Gen. Chief Engineer.*

Hon. J. C. CALHOUN,

*Secretary of War.*



## A.

*STATEMENT, specifying the nature and extent of Work done, and the kind and quantity of Materials delivered, at Fort Delaware, from the 1st of January, to the 30th of November, 1822.*

## MASON WORK.

2,273 perches building stone laid in wall -	-	-	-	\$1,704	75
870 do range do piers -	-	-	-	1,305	
293,000 bricks -	-	-	-	arches	879
Cutting 5,686 square feet stone -	-	-	-	-	1,421 50
Extra Work -	-	-	-	-	75

## CARPENTERS' WORK.

Making, setting, and resetting, centres for casemates and magazines -	-	-	-	-	493
Covering in work, to secure it from the weather -	-	-	-	-	243 85

## SMITHS' WORK.

Keeping masons' and stonecutters' tools in order, mending machinery and carts, shoeing horses, &c. -	-	-	-	-	100 24
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## LABOR.

Hauling mud to make parade, hauling stone-lime, bricks, and sand, driving piles, excavating, making hay, &c. &c.* -	-	-	-	-	3,013 75
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## MATERIALS.

5,116 perches building stone -	-	-	-	-	5,116 00
882 do range -	-	-	-	-	2,206 25
1,037 do pier, for sea wall -	-	-	-	-	774 55
395,000 bricks -	-	-	-	-	3,162 40
651 tons sand -	-	-	-	-	325 50
3,225 bushels lime -	-	-	-	-	1,128 75
30,026 feet scantling and boards, for centring and covering -	-	-	-	-	597 30
3,061 cubic feet pine logs, for grillage -	-	-	-	-	367 32
7,770 do piling -	-	-	-	-	777 00
10cwt. 0qr. 11lbs. cordage, for scaffolding, and pile machine -	-	-	-	-	120 00
205 bushels corn meal, for pub. oxen -	-	-	-	-	151 62
112 do oats do horses -	-	-	-	-	36 25
4 do corn -	-	-	-	-	2 50

\* In this item is included \$606, pay of superintendent and overseers.

1,200 lbs. nails and spikes	- - - - -	\$91 85
50 bushels coals	- - - - -	19 25
6 files, \$2 25; 10½ lbs. steel, \$2 15,	- - - - -	4 40
2cwt. 1qr. 26½lbs. iron, centreing, &c.	- - - - -	13 68
1 bundle rods, \$3 25; 1 adze, 75 cts; 1 vice,	- - - - -	8 62
\$4 62	- - - - -	
1 box tin plates, used in setting centres	- - - - -	15 00
100 large screws, pile machine	- - - - -	1 50

## SUNDRIES.

1 billy, 12½ cts; 6 ox bows, \$1 50	- - - - -	1 62½
1 cart tongue and band, \$2 20; 2 ox yokes, 4	- - - - -	
bows, \$3	- - - - -	5 20
20 lbs, tallow, for pile machine	- - - - -	2 50
2 leather horse-collars	- - - - -	2 50
Sail for Barge	- - - - -	17 72
Mending harness	- - - - -	1 00
Freight of boards, scantling, iron, cartage and por-	- - - - -	
terage	- - - - -	13 69
For supplying the Island with fresh water	- - - - -	240 00
Compensation for disbursement up to the 30th Nov.	- - - - -	610 00

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\$25,050 06

## B.

*STATEMENT, specifying the nature and extent of work done, and the kind and quantity of materials delivered, at Fort Washington, from the 1st of January to the 30th of November, 1822.*

Masonry.	1,670 cubic yards stone	-	-	\$4,819	76
	1,473 " brick	-	-	7,054	80
Earth.	Removing 4,606 cubic yards earth	-	-	3,937	19
Carpentry.	487 days labor	-	-	663	99
Smithry.	280 " - - - -	-	-	105	48
Contingencies.	Hardware, iron, and nails	-	-	298	92
	Paints, oil, painting, and glazing	-	-	80	51
	Cordage for scaffolding	-	-	3	84
	Wood and coal	-	-	242	57
	Stationery	-	-	22	50
	Advertising	-	-	7	75
	Castings	-	-	30	10
	Straw	-	-	29	66
	Tolls	-	-	30	12
Lime.	750 casks	-	-	1,200	
Building stone.	2,250½ perches	-	-	2,588	07
Sand.	3,582 casks	-	-	222	74
Lumber.	37,100 feet	-	-	528	42
Bricks.	463,680	-	-	2,550	24
Cement.	50 casks	-	-	250	
Gunborings.	1 ton	-	-	8	
Free stone.	109¾ tons	-	-	878	
Malleable zinc.	782 lbs,	-	-	125	12
	Subsistence of laborers	-	-	1,851	67
				<hr/> <hr/>	
				\$27,029	45

*STATEMENT of disbursements under the appropriation of this year, for Fortress Monroe, and of other sums which have become available during the course of the disbursements, up to the 30th of November, 1822.*

April 1, By balance of appropriation for 1821, statement 1,	-	-	-	-	-	\$8 31
By appropriation for the current year	-	-	-	-	-	75,000 00
“ Errors on settlement of former accounts	-	-	-	-	-	7 73
“ Collections from Mix and Corson	-	-	-	-	-	7 48
“ do J. Bulkley and Co.	-	-	-	-	-	8,309 03
“ Loans of provisions, labor, &c. &c. to Fort Calhoun during the current year	-	-	-	-	-	1,292 53
					Applicable amount	\$ 84,625 08
Bolts, No. 16	-	-	-	-	\$ 6 63 applied to permanent quarters.	
Brads, 5000	-	-	-	-	2 50 do to screw pumps and mending harnesss.	
Free stone, tons 107 $\frac{2}{15}$	-	-	-	-	1,017 63 for construction.	
Iron, lbs. 802	-	-	-	-	58 11 for various constructions.	
Latches, 8	-	-	-	-	6 00 for permanent quarters.	
Lime, casks 4,540	-	-	-	-	4,400 61 for construction.	
Nails, lbs. 2,061	-	-	-	-	237 37 for various constructions.	
Paints, cost of	-	-	-	-	49 24 for permanent quarters and pumps.	
Pitch, barrels 2	-	-	-	-	7 35 for repairs of lighters.	
Plank, feet 62,451	-	-	-	-	776 72 for housing the walls.	
Shutter rings, doz. 5	-	-	-	-	3 75 for permanent quarters.	
Sand, bushels 1,711	-	-	-	-	136 88 for construction.	
Screws, groce 4	-	-	-	-	2 00 for permanent quarters.	

Steel, lbs. 60	-	-	-	12	00	for various constructions.
Stone, J. Bulkley and Co. perches	9,562	45	-	26,057	61	for construction.
do by purchase, 222	80	-	-	607	13	do.
Tar, barrels 13	-	-	-	34	96	for repair of lighters.
Window glass, feet 200	-	-	-	19	00	for quarters.
Anchors, No. 2	-	-	-	17	75	for lighters.
Bags, 50	-	-	-	22	50	to contain forage.
Carts, repairs of	-	-	-	53	50	the purchase of timber, &c.
Cordage, lbs. 857	-	-	-	120	92	cable for lighters and measuring lines.
① Horse harness, cost on	-	-	-	5	60	purchase of leather, thread, &c.
Hour glass 1	-	-	-	1	25	to regulate the pumping watches at night.
Lighters, cost on	-	-	-	52	15	for sheathing paper, timber, &c.
Pumps, cost on:	-	-	-	47	76	in leather, crucibles for casting channels, axletrees, &c.
Straw cutter, 1	-	-	-	10	00	to chop the food of public horses.
Files, No. 96	-	-	-	15	50	for carpenter's use.
Aprons, 3	-	-	-	4	50	for smiths.
Coal, bushels 800	-	-	-	265	12	for smithery.
Files, No. 72	-	-	-	28	75	do.
Sweet oil, gallons 1½	-	-	-	5	25	do. in cutting screws and vices.
Whitewash-brushes, No. 6	-	-	-	3	00	for washing quarters.
Shovels, No. 300	-	-	-	301	50	for excavations.
Cooper's adze, 1	-	-	-	1	00	for provision stone.
Tin measures, 1	-	-	-	13		for issues of provisions.
Saw, 1	-	-	-	2	50	for do. do.
Brooms, 18	-	-	-	2	25	for mess houses, bakery, cook houses, &c.
Stone masonry, perches 12,500	-	-	-	12,500	00	laid in main revetments.
Masonry, days work	-	-	-	604	96	perching stone, and pointing piers, &c.
Carpentry, days 941½	-	-	-	1,209	80	applied to various constructions.
Smithery " 541½	-	-	-	343	23	do. do. do.

## STATEMENT—Continued.

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Overseer, days 136	-	-	-	225 00	attending on laborers.
Victualler " 153	-	-	-	100 00	charged with issuing of provisions.
Baker, " 151	-	-	-	87 58	baking bread for the laborers, &c.
Sub-overscers, " 612	-	-	-	268 83	attending on laborers.
Hostler, " 153	-	-	-	88 74	charged with the forage and its issues.
Nurse, " 151	-	-	-	19 73	attending on the sick.
Labor, "23,328	-	-	-	7,956 62	excavations, reception of materials, &c. &c.
Soldiers' labor, cost on	-	-	-	159 00	for superintendence, washing, &c.
Forage, cost of	-	-	-	1,443 66	issued to issue to the public teams.
Oxen hire, No. 4. No. days 26½	-	-	-	30 00	employed to haul heavy stones.
Drinking water, cost on	-	-	-	517 26	issued to the officers and others constructing this work.
Fuel, cords of 61⅞	-	-	-	127 75	applied to bakery, cooking, and laborers.
Medicines and hospital stores, cost of	-	-	-	24 23	do. to sick laborers, &c.
Postage on public letters	-	-	-	21 61	
Surgeon, days 153	-	-	-	300 00	attending on the sick.
Stone measurers, 306	-	-	-	450 00	inspecting and receiving stone, acting as storekeepers, clerks, &c.
Stone cutting, cost of	-	-	-	489 03	for construction.
Stationery, cost of	-	-	-	52 10	for office use.
Transportation, cost of	-	-	-	4 00	passage to Norfolk of 1 officer, 1 carpenter, and two convicts, the two former on official business, and the latter for safe keeping.
Amount disbursed F. M.	-	-	-	\$61,419 55	

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This amount for provisions - - - 7,090 94  
Paid for a case of drawing instruments - - - 11 00

Total disbursement, 30th November - - - \$ 68,521 49  
Remaining for December - - - 16,103 59

                      
                     \$84,625 08 Applicable amount as per statement.

C. GRATIOT, *Lieutenant Colonel.*

C.—Continued.

*STATEMENT, exhibiting to what objects the unexpended balance of last year's appropriation was applied.*

Jan. 1, 1822.	By balance on hand,	-	-	-	-	-	-	\$ 3,248 47
" " "	By collections from J. Lewis & Co.	-	-	-	-	-	-	33 43
" " "	By Shea, for repairs of tools in smith's shop,	-	-	-	-	-	-	6 40
Feb. 20, "	By Treasury remittance,	-	-	-	-	-	-	5,400 00
								\$ 8,688 30

The disbursements during the first quarter of this year, were, for

Brads, 2,000	-	-	-	\$ 1 00	applied to fasten screw pump fillers, &c.
Freestone, 56 $\frac{1}{5}$ tons	-	-	-	539 60	for construction.
Iron, cost on	-	-	-	1 30	wharfage in Norfolk.
Lime, 660 casks	-	-	-	990 00	for construction.
Nails, 536 lbs.	-	-	-	53 50	applied to various objects of construction.
Paints	-	-	-	6 90	applied to quarters and other objects.
Plank, 23,015	-	-	-	487 14	used in sheathing lighters, making barrows, carts, &c.
Stone, 116.48 perches	-	-	-	349 44	for construction.
Tar, 8 barrels	-	-	-	22 39	for repairs of lighters, boats, &c.
Horses, six	-	-	-	3 00	for public horses.
Cordage, 161 lbs.	-	-	-	32 20	for falls to raise heavy articles with.
Cart harness, cost on	-	-	-	160 35	for public teams.
Lighters, cost on	-	-	-	10 18 $\frac{1}{2}$	for repairs.

Tender, cost on	-	-	30 62	wharfage in Norfolk.
Chalk, 50 lbs.	-	-	2 00	for carpenters' use.
Files, 144	-	-	17 25	for do do.
Coal, 100 bushels	-	-	29 94	for smithery.
Files, 132	-	-	27 37	for do.
Stoves and pipes, cost on	-	-	1 00	for laborers' quarters.
Funnels, one	-	-	19	for commissary store.
Kettle, of 50 gallons, one	-	-	13 50	to cook for laborers.
Tin measures, two	-	-	56	to measure rations.
Carpentry, days 344	-	-	442 36	applied to various constructions.
Smithery, " 296½	-	-	229 90	applied do do.
Overseer, " 76½	-	-	134 15	applied to attending at laborers.
Victualler, " 88½	-	-	58 90	applied to issuer of provisions.
Baker, " 90	-	-	52 20	applied to baking for laborers.
Sub-overseers, 146	-	-	84 70	applied to attending on laborers.
Hostler, " 90	-	-	52 20	charged with forage and care of public horses.
Hosp'l nurse, " 59	-	-	8 00	attending on the sick laborers, &c.
Labor, " 8,037½	-	-	2,890 76	excavating, transportation, & removal of materials, &c.
Forage, cost of	-	-	362 01	issued to public teams.
Drinking water, cost of	-	-	300 75	issued to officers, people, &c.
Fuel, cords of, 92	-	-	265 51	for cooking, baking, and laboring people, &c.
Medicines and hospital stores, cost of	-	-	21 56	administered to the sick, surgeon U. S.
Postage of public letters	-	-	21 18	
Price currents	-	-	9 00	to ascertain the price of articles.
Printing advertisements, &c.	-	-	3 25	
Surgeon, days 90	-	-	180 00	attending the sick. [ers, clerks, &c.
Stone measurers, do 180	-	-	270 00	inspectors of stone; otherwise employed as store-keep-
Watchmen, nights 565	-	-	141 25	to prevent the public property from spoliation.
Stationery	-	-	12 62½	for Office use.

*STATEMENT—Continued.*

Stone cutting	-	-	288 00	for construction.
Transportation	-	-	16 25	public property from Norfolk.
Vessel hire, charge on	-	-	56 00	wharfage on vessels transporting for the U. States.
			<hr/>	
			\$8,679 99	
Difference to be carried to new account,	-	-	8 31	
			<hr/>	
			\$8,688 30	
			<hr/>	

C. GRATIOT, *Lieutenant Colonel.*

D.

*STATEMENT of disbursements, under the unexpended balance of 1821, for Fort Calhoun.*

January 1, 1822. Balance	-	-	-	-	-	-	-	-	-	\$7,183 24
Stone, perches, 2,159.40	-	-	\$6,498 08	applied to the formation of foundation.						
Stone-measurer, 90 days	-	-	135 00	inspecting and receiving the stone.						
Boatman, 299 do	-	-	128 82	attendance.						
Stationery, cost of	-	-	2 50	office use.						
Equivalent to double rations	-	-	90 00	authorized by War Department.						
Transportation	-	-	33 60	to and from Norfolk on official business.						
Commissions	-	-	278 00	on disbursements from November 1821.						
Amount disbursed	-	-	\$7,166 00							
March 31, balance carried to new account			17 24							
			<u>\$7,183 24</u>	applicable amount as above.						

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C. GRATIOT, *Lieut. Col.*

## D.—Continued.

*STATEMENT of disbursements, under the appropriation of this year for Fort Calhoun, including the balance of last year's appropriation, up to the 30th of November, 1822.*

April 1. By balance of last year's appropriation	-	-	-	-	-	-	\$17 24
appropriation for 1822	-	-	-	-	-	-	50,000 00
							<u>\$50,017 24</u>
Stone, perches 13,212. 44	-	-	\$39,210 00	applied in forming the foundation and filling the wharf.			
Stone-masurer, 214 days	-	-	315 00	inspecting and receiving stone.			
Boatman, 959 do	-	-	401 92	attendance.			
Stationery, cost of	-	-	35 52	office use.			
Cordage, 58 lbs.	-	-	8 12	measuring lines.			
Copper, 14,192 do	-	-	3,948 62	sheathing the wharf.			
Postage on public letters	-	-	20 85				
Wharf, charge on	-	-	11 00	freight of copper from Norfolk.			
Vessel hire	-	-	3 00	transporting laborers.			
Boat repairs	-	-	35 62				
Disbursements, 30th November	-	-	\$43,989 65				
Applicable in December	-	-	6,027 59				
			<u>\$50,017 24</u>	available amount as above.			

## E.

*STATEMENT, specifying the nature and extent of work done, and the kind and quantity of materials delivered, at the Rigolets, from the 1st January, to the 30th November, 1822.*

	Quantity.	Cost.
Earth removed	6784 cubic yds.	\$4,712 32
Brick masonry	3015 do.	10,483 29
Ditto	148 days	344 24
Carpentry for Barracks and officers' quarters	-	2,414 75
Do. for other purposes	-	736 67
Labor (hired)	-	3,524 22
Do. (by soldiers)	-	11 25
Bricks	669,635	10,312 38
Tiles	4,700	126 90
Lime (stone)	500 tierces	1,335 00
Do. (shell)	5,013 bbls.	2,870 03
Do. (water)	21 do.	94 50
Sand	17,858 do.	3,680 64
Flag stones	400 sq. ft.	300 00
Logs for foundation and flag-staff	242	1,142 50
Lumber of various kinds	72,623 ft.	1,666 85
Iron, spikes, nails, &c.	-	298 35
Bolts, sockets, and chains, for embrasures	-	289 48
Iron supporters for bridge, hinges and eyes	-	219 80
Copper, and copper nails	-	4 75
Sheet lead	506 lbs.	65 78
White rope of different kinds, tar, and pump leather	-	62 56
Paints, oil, spirits of turpentine, and putty	-	46 24
Blank-books, stationery, &c.	-	67 53
Sundry materials	-	167 52
Boats, oars, sails, &c.	-	365 99
Sundries—screws, bolts, grindstones, locks, &c. &c.	-	112 73
Do. files, augers, axes, mathl. instruments, &c.	-	80 23
Do. freights, repairs and other contingencies	-	177 42
		<hr/> \$45,713 92
The portion of the appropriation of the year 1822, applied to the foregoing, amounted, on the 30th of November last, to		40,671 20
		<hr/> \$5,042 72

