

THE ARMING OF FORT PULASKI

1828-1861

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NATIONAL PARK SERVICE

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PREFACE

This brief study has been undertaken in order to trace completely the successive proposals of the Federal Government to provide an effective armament for Fort Pulaski, to show in detail the construction carried on in preparation for its arming, and to explain exactly the nature and type of ordnance actually mounted at the fort prior to the year 1861. Materials upon which this study has been based have been in the main original letters and reports taken from the Record Section, Office, Chief of Engineers, United States Army, Washington. The writer's acknowledgment of the capable and courteous aid received in this office is gratefully extended.

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The original estimate or "memoir" of the projected fort on Cockspar Island, Savannah river, Georgia, transmitted by General Simon Bernard, to Major-General Alexander Macomb, Chief of Engineers, on January 17, 1828, called for a total armament, of the proposed fort and its outworks, with one hundred and forty-three pieces. Within the fort, the pieces were to be mounted as follows: on the north and south faces, eight on the first and second tier, and eight on the platform, a total of twenty-four guns on each of these two faces; on the northeast and southeast faces, ten on the first and second tier, and ten on the platform, a total of thirty guns on each of these two faces; to in the three angles of the fort, to be mounted thus: one in the angle of the northeast and southeast faces on the first tier, one in each angle of the second tier, and two in each angle of the platform; six in the gorge face; a grand total of one hundred twenty-four pieces. Sixteen pieces, eight mortars, and eight howitzers were to be mounted in the advanced battery. Finally three guns were to be placed in the ravelin or demi-lune, to protect the sally-port.

1. "Descriptive Memoir, analysis of prices and estimate relating to a projected fort destined to defend the entrance of Savannah river, State of Georgia, 1828." Enclosure in letter General Simon Bernard, to Major-General Alexander Macomb, Chief of Engineers, January 17, 1828, File No. B. 111, 7th Section, Office, Chief of Engineers (This office henceforth to be cited as E.S.) Types of the guns not specified; note the location of the six in the gorge wall.

When the plans of the projected fort were revised in the late summer of 1831, the total of the armament for the proposed fort was also changed. The revised project for the fort on Cocksbur Island, as transmitted by Lieutenant Joseph K. F. Mansfield, to General Charles Gratiot, Chief of Engineers, on September 30, 1831, called for a revised armament to consist of one hundred and seventy-two pieces. The guns were to be mounted within the fort as follows: lower tier, twelve guns in each of the four faces, one in each angle, and two carronades in each demi-bastion, a total of fifty one guns and four carronades; upper tier, twelve guns on each of the four faces, two on each demi-bastion, and five on the gorge wall; making a grand total for the fort of one hundred eleven guns and four carronades. In the demi-lune, there were to be fourteen guns on each face, and one on the pan-coupe, a total of twenty-nine guns. In the advanced battery were to be twelve guns, eight mortars, and eight howitzers.

No further mention is made of the proposed armament for Fort Pulaski until March, 1835, when Lieutenant J. K. F. Mansfield suggested a drastic change in the fort's ordnance. The Engineer Department, on February 24, 1835, had issued an order to Lieutenant Mansfield, requiring an immediate statement on the several classes of guns to be needed at Fort Pulaski. This request apparently came as the consequence of the then un-

2. "Revised Project for a Fort on Cocksbur Island, Savannah River, Georgia. Sept. 24, 1831." Enclosures in letter, Lieutenant J.K.F. Mansfield, to General Charles Gratiot, Chief of Engineers, sept. 30, 1831, File No.M.851, R.S. Types of guns, with the exception of the carronades again not specified

3. The fort had been named on April 18, 1833, by the Secretary of War. See General Order Book, Adjutant General's Department, Vol.6,p.808

4. R.S., File No.M.1835, March 18, 1835.

settled and uncertain foreign relations between the United States and France. In his annual message to Congress, on December 2, 1834, President Andrew Jackson, had recommended that Congress pass reprisal laws against France, or adopt other stringent measures to secure redress from that nation for its failure to pay American claims arising from French aggression on our commerce during the period 1800-1817. Only three years previously, on July 4, 1831, France had signed a convention with the United States, in which it had been stipulated that France would immediately begin payment of the commerce claims. When President Jackson delivered his message in December, 1834, the French Government had "not fulfilled the above stipulations."⁵

Lieutenant Mansfield in a letter to his superior, General Charles Gratiot, Chief of Engineers, on March 19, 1835, in response to the Department's request of February 24, outlined his recommendations as to the armament actually required by the fort.⁶ Basing his recommendations on the armament as analyzed and proposed by the Board of Engineers in 1831,⁷ he made the rather startling suggestion that the fifty-one casemate guns be entirely dispensed with as ineffective. Even before the casemates were built, he was apparently anticipating the trouble that the poor Confederate gun-

⁵ Abridgement of the Debates of Congress. D. Appleton N.Y. 1859. Vol. XII, 1832-36, 524-26.

⁶ R.S., File No. M.1533, March 19, 1835.

⁷ R.S., File No. M.651, September 30, 1831. The practice followed in the original letters and reports, upon which this study is based, in designating the guns on the first tier of the fort as "casemate guns" and those on the barbette tier as "barbette guns" has been adhered to in this study.

were to encounter twenty-seven years later, when they attempted to secure an effective elevation for the fire from the casemated guns. Of the one hundred and two guns intended for the four battery faces, by the 1831 report, he suggested the retention of only the fifty-one en barbette, these to be long thirty-two pounders, mounted on sea-coast carriages. However, the four, twenty-four pounder carronades, to be mounted in the casemates of the demi-bastions, for the defence of the flanks and ditch and drawbridge of the gorge and demi-lune, were to be retained. Lieutenant Mansfield stated that while preference had been given to the barbette guns because of the great distance of the mid-channels to be commanded on either side of the fort, at least one-half of the carriages of the casemate guns should be retained in order that certain guns might be transferred if necessary. In the demi-lune, the twenty-nine, long thirty-two pounder guns were to "be dispensed with, and a few field pieces substituted to be more secure against a coup-de-main." Finally, the armament of the advanced battery, twelve, long thirty-two pounder guns, eight mortars, and eight howitzers, could be eliminated, with the exception of the mortars, "and even half of these provided the Tower on Tybee be armed with a long 32 pdr. on a pivot." Concluding his recommendations, Lieutenant Mansfield observed that if the number of the guns should be reduced, "the ordinary garrison of two hundred and fifty men in time of war would be insufficient as the defence of the work against insult(sic) would depend more on small arms."

Negotiations with France for the payment of the American commerce claims continued unsatisfactorily during the rest of 1835, resulting in the first actual move to arm the new fort in process of construction on Cookspur Island. Following President Jackson's incendiary message in December, 1834, Congress had found "it inexpedient to pass at that time any laws in regard to relations between the United States and France."^{8.} France, in the meantime, had appropriated the money for the discharge of her obligation to the United States, but had withheld payment, pending an explanation from President Jackson as to the meaning and tone of his message to Congress in 1834, upon which the payment was contingent.^{9.} Such was the state of relations between the United States and France, when early in December, 1835, President Jackson delivered his annual message to Congress. The message explained the situation and concluded by observing that France was assuming an indefensible position in objecting to a domestic paper delivered by the head of a foreign government.^{10.} President Jackson was apparently attempting a too fine spun discrimination, when his intent had been clearly obvious.

Reverberations from this unsatisfactory state of affairs were soon expressed in the United States by a move to place the seacoast defenses in order. On December 30, 1835, Major-General Alexander Macomb, commanding the United States Army, in a letter to General Charles Gratiot, Chief of Engineers, observed

8. Abridgement of the Debates of Congress D. Appleton, N. Y. 1859, Vol XII,

1832-1836, 657-66.

9. ibid., 669-671

10. ibid.

"Considering the state of our relations with France and apprehensive that our defences, from the want of means, are not in the condition they ought to be, I have to request that you will cause the various assailable points to be examined, particularly those below enumerated, with a view to applying all our means --- to putting in a more powerful state of defence the --- important approachable points --- along the seacoast. ^{11.}

Important among the "places to which attention is required," he listed Savannah.

Pursuant to this request, the Engineer Department, on January 11, 1836, informed Lieutenant Mansfield that only six barbette guns and carriages could be furnished by the Ordnance Department for the defence of Savannah prior to March 31. As soon as the guns were received, however, Mansfield was instructed to take immediate measures to mount them either at Fort Pulaski or Fort Jackson, as he saw fit. ^{12.} Excitedly, Mansfield wrote on January 30, that he had decided to place the six guns on Cockspur. In case that war actually occurred, he proposed that a temporary fort and block house be built on the parade of the permanent work than being constructed. He also recommended the "fitting up" of the two magazines at Fort Pulaski, and the placing of platforms on the piers at Fort Jackson so that the latter could be used as an ammunition depot. To install the proposed battery of six guns, one thousand dollars would be required, and should be transmitted immediately. ^{13.} But, he concluded, that no notice had yet been received of the shipment of the six guns. Mansfield apparently viewed the entertaining possibilities of a war with enthusiasm. Perhaps any avenue of escaping the tedium of the construction of Fort Pulaski was then attractive.

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- 11. R.S., File No. M.1631 $\frac{1}{2}$, December 30, 1835.
 - 12. R.S., File No. M.1645, January 25, 1836.
 - 13. R.S., File No. M.1648, January 30, 1836.

Unfortunately, the possibilities of an actual use of Mansfield's proposed battery soon faded. Twice in February, 1836, he sent plaintive requests that the guns be forwarded. But still no guns were received. With the guerilla warfare of the discontented Seminole to be faced in Florida just then, the United States was too busy to press a foreign difficulty. With the adoption of a more amenable position by France all cause for alarm passed. So ended the first actual move to mount guns at Fort Pulaski. By February 24, the Engineer Department had informed Lieutenant Mansfield that the "cause for erecting a battery at Cockspur Island, "having been removed the work would not be required. In reply, on March 9, Lieutenant Mansfield announced that the alarm had caused no real interruption on Cockspur since no expense had been incurred and neither had any guns been received.

Early in the spring of 1839, the construction of the fort's walls had advanced sufficiently to enable guns to be mounted, temporarily if necessary in the battery casemates. On March 6, Captain Mansfield urged his superior, Colonel Joseph C. Totten, Chief of Engineers, to ship "without delay, a thirty-six casemate seaward guns and carriages complete, with four carronades and carriages, to be immediately placed in battery for the defence of this position." Captain Mansfield observed that in a short time the work might be put in a condition to make a "handsome defence," if necessary. He also suggested that a

14.
 15. R. S., File No. E.1666, March 9, 1836.
 16. Ibid.
 17. R.S., File Nos. M.200, Nov. 19, 1838; M.304, March 6, 1839.
 18. Lieutenant Mansfield was promoted to Captain on July 7, 1839.
 R. S., File No.304, March 6, 1839 .

16.

number of the guns at Fort Moultrie, Charleston Harbor, might be transferred in charge of an ordnance officer, should need for their use actually arise.

His urgent solicitude apparently was engendered by the disturbed state of the relations between the United States and England. As early as 1834 the British Government had re-opened negotiations with the United States to settle the northeast boundary between Maine and the English New Brunswick. ^{19.} Rather futile negotiations during 1835 and 1836 had been harshly interrupted in December, 1837, by the Caroline episode. ^{20.} Despite the aroused state of

American feeling, the British initiated a new movement to fix the boundary. ^{21.} early in 1838, later in that year, and in January, 1839, the renewed negotia-

tions were further aggravated when border warfare broke out between citizens of New Brunswick and the Maine militia. On February 26, President Van Buren sent a message to Congress requesting extraordinary powers to deal with the situation. ^{22.} Though a temporary truce was drawn up between the two governments

next day; on March 2 and 3, Congress authorized the President to call out fifty thousand volunteers and voted several millions dollars to protect American interests in case of invasion. ²³

With the national feelings of England and the United States in such a turmoil, the actual outbreak of hostilities was not impossible, and Captain Mansfield apparently desired to be prepared for such an exigency.

19. Bemis, S.F. (Ed.) The American Secretaries of State and their Diplomacy. N.Y. 1928. Vol. IV, p. 329.
20. Congressional Globe, 25 Cong. 2 Sess., Vol. 6, pp. 61-65; cf., Bemis, op. cit., pp. 330-31.
21. Congressional Globe, 25 Cong. 2 Sess., Vol. 7, pp. 222-23; cf., Bemis, op. cit. p. 333.
22. Congressional Globe, 25 Cong. 3 Sess., Vol. 7, pp. 222-23; cf., Bemis, op. cit., p. 333.
23. Congressional Globe, 25 Cong. 3 Sess., Vol. 7, pp. 226-27; 241-44.

Throughout the remainder of the year, in addition to his construction problems, Captain Mansfield was immersed in study on the subject of plans for mounting various types of guns. Although construction of the fort was not then sufficiently advanced actually to mount permanently any type of gun, ^{24.} he was already making preparations to mount both casemate and barbette guns. On September 2, the Engineer Department transmitted to him information on the mode of securing the traverse circles of the barbette guns. ^{25.} Nine days later he requested from the Department the "complete plan of the adopted barbette seacoast carriages with guns mounted thereon." ^{26.} On November 2, he requested the Department to furnish him with a sketch of the method of "laying out and constructing" the circles and centres for the seacoast barbette gun carriages. ^{27.} He then turned his attention to the plan by which the casemate or embrasure guns were to be mounted requesting information on this point ^{28.} on December 6. He received this information from the Department by December 18, and on the same date forwarded to the Department "a plan herewith of embrasures and battery flanks," in order that the problem he faced in the casemates might be understood in Washington. ^{29.}

His difficulties in planning the gun mountings continued in 1840. On January 21, the Department was requested to furnish the technical information necessary to the building of the barbette gun mounts behind the parapet walls. ^{30.} At this time, Captain Mansfield announced to the Department that

24. R. S., File No. M.409, Oct. 22, 1839.
 25. R. S., File No. M.394, September 11, 1839.
 26. Ibid.
 27. R. S., File No. M.418, November 2, 1839.
 28. R. S., File No. M.436, December 6, 1839.
 29. R. S., File No. M.441, December 18, 1839; see plan, Drawer 70, Sheet 9, "Plan of the Casemate embrasures of Fort Pulaski," Construction Section,
 30. Office, Chief of Engineers (U.S.)
 R. S., File No. M.455, January 21, 1840

"The casemates of the Battery Fronts of this work will be in a few days in a condition to receive the guns should occasion require them to be mounted before this work will be finished, with this exception however; the iron segments have not been procured and cannot be out of the present available funds, and two casemates in the centre of each (battery) front having been arched over the cisterns, will require stone segments to be cut to receive the iron segments which cannot be executed out of the present available funds."

In the meantime, the Department apparently had requested information on the size of the floor space available in the casemates for the mounting of guns there, and on February 5, Captain Mansfield, in reply, forwarded a plan of the casemates, remarking

"I have made a plan which you will find herewith enclosed marked A adapted to the casemates of this fort."^{31.}

During the spring of 1840 relations with England over the north-eastern boundary question had continued unsettled. The trial by New York courts of one of the Canadian insurgents in connection with the Caroline episode, and the alleged violation by New Brunswick citizens of the treaty between England and the United States over the disputed boundary area, soon precipitated another convulsion of jingoistic feeling in both countries. It is not unusual then, to find Captain Mansfield warning the Department that "if there be a possibility of a rupture with England in 1840, it would be well to look to the armament of Pulaski----" Writing on March 2, he urged that arrangements be made for such a possibility

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31. R.S., File No. M. 459, February 5, 1840; see plan, Drawer 70, Sheet 10, "Sketch of Casemates of Fort Pulaski," Construction Section, Office, Chief of Engineers (U.S.)
32. Congressional Globe, 26 Cong. 1 Sess., Vol. 8, pp. 122, 126, 134-36, 291-96, 318-24; cf., Bemis, op. cit., Vol. V, pp 14-16.

"Or England with the aid of two ships and 500 men may save the government that trouble as that power undoubtedly are as well informed of the condition and progress of this work as the Department can be. This position is the Key to the Inland Navigation between Charleston and St. John's River, and the defence of Savannah and once in possession of the enemy will be held in spite of all the efforts of a power dependent on militia for defence."³³

Concluding this admonition, he announced that the magazines of the work could be "fitted up" and the main gate made and hung on short notice, and the iron tracks for the casemate guns laid if the necessary funds could be provided. Finally, he stated that he had sent the communication in order that "timely preparation" could be authorized if needed. On March 20, he transmitted to the Department for its inspection, an illustrative diagram which he termed, "Plan of the carrenade embrasures in the face and flank of Bastion, Fort Pulaski." During the remainder of the month he made active preparations to receive and mount guns should the Department decide to forward any. Masons were busy laying some of the foundation stones for the gun traverses tracks over the cisterns in the battery fronts.³⁴

Meanwhile the Department apparently had decided to heed Captain Mansfield's warning of March 2, and had informed him of the intention to forward some twenty guns to Fort Pulaski.³⁵ On April 6, he asked the Department to inform him when he might expect the twenty guns; at the same time stating that his inquiries of the ordnance office at Augusta, Georgia, concerning them had elicited no reply.³⁶ He also observed that there then existed "no obstacle to their being

³³. R.S., File No. M.480, March 2, 1840.

³⁴. See plan, Drawer 70, Sheet 11, Construction Section, Office, Chief of Engineers, U. S. Army; cf., Letter, Colonel J. C. Totten, Chief of Engineers, to Captain Mansfield, March 26, 1840, No. 7 Letters to Officers of Engineers, p. 428; cf., R.S., File No. M.494, April 2, 1840.

³⁵. R.S., File No. M.497, April 6, 1840.

³⁶. Ibid.

rec'd and mounted as soon as rec'd." His anxieties were relieved about a week later. On April 14, he informed the Department, in a postscript to a routine letter, that

"P.S. The 20 guns are now landing- but ord. (nance) Dept. omitted to ship their lower carriages giving no reason therefor on invoice." 37.

38.

The first shipment of ordnance intended for Fort Pulaski had finally arrived, but under circumstances very exasperating to Captain Mansfield. Construction work at the fort had nearly closed for the year, and the Department had authorized Captain Mansfield to come North as soon as the guns could be

39.

mounted. Eager to leave the island, his departure was to be prevented for several weeks by the Ordnance Department's negligence in failing to send the proper carriages, and tackle with which to handle the guns. Captain Mansfield reported, on April 21, that while the guns had been received at the fort wharf on the South Channel, their lower carriages had not yet arrived, nor had any notice been received of their shipment. The guns could not be handled and mounted with his present machinery, as hitherto there had been no occasion for the use of a sling cart, which was now necessary. He urged the Department to have the Ordnance Department ship the carriages and necessary tackle at once, stating that the fort's business in the North would be injured if he had to remain on the island too long. Further complications arose from the fact that most of the laborers had been discharged for the year, and there was no adequate force on the island to handle the guns. The Ordnance Department had

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37. R.S., File No. M.506, April 14, 1840.

38. The shipment consisted of 20, long 32 pounder casemate guns. See R.S., File No. M.590, Oct. 17, 1840.

39. R.S., File Nos., M.480, March 2, 1840; M.494, April 2, 1840; M.498, April 7, 1840; M.509, April 21, 1840.

40. R.S., File No. M.509, April 21, 1840; cf., File No. M.649, March 18, 1841.

41. R.S., File No. M.523, May 6, 1840.

sent no laborers to handle the guns and had provided no money for their handling. Captain Mansfield notified the Department, on April 25, that he had been forced to advance funds to the Ordnance Department for laborers in order that the guns could be unloaded at the fort wharf from the steamboat on which they were shipped from Augusta.⁴² He also observed rather impatiently that information concerning the shipment of the lower carriages for the guns still had not been received.

Still further complications in getting the guns mounted developed about a week later. In reporting to the Department on the progress of the mounting of the guns, Captain Mansfield, on May 2, stated that Captain Harding, of the Augusta Arsenal, was in charge of the mounting of the guns. He also reported that while the chassis of the guns had been received, and all the guns placed in the casemates, they could not be mounted as the wheels for the chassis would not fit. The iron carriages for the guns also had arrived but were still at the wharf, at this time.⁴³ As long as these delays continued, Captain Mansfield's stay on the island had to be prolonged, since the presence of an engineer officer was required at a work in which an ordnance officer was mounting guns.⁴⁴ Several weeks later however, the remaining obstacles were overcome. By May 30, 1840, the first twenty guns of the Fort Pulaski armament were finally mounted, and on that day Captain Mansfield took his long-delayed departure for the north.⁴⁵

⁴²Ibid; cf., R.S., File No. M.514, April 25, 1840 & cf., File No. M509, April 21, 1840.

⁴³R.S., File No. M.518, May 2, 1840.

⁴⁴R.S., File No. M.523, May 6, 1840

⁴⁵R.S., File No. M.530, May 30, 1840; cf., File No. M.590, Oct. 17, 1840.

A restricted appropriation during 1840-1841 held construction work at the fort to a minimum until late in 1841. During this period, Captain Mansfield was in the North attending to various business for the fort. On February 12, 1841, he recommended the purchase of stone for gun carriage segments, and iron for gun traverse tracks. The Engineer Department forwarded to him, on August 25, 1841, plans and drawings illustrating the method of laying the stone traverse circles and winkle blocks for the barbette guns. Summarizing the work accomplished by September 30, in preparation for the mounting of additional guns on Fort Pulaski, Captain Mansfield noted the purchase of iron for the remaining carriage tracks of the casemate batteries, and for forty-five guns of the barbette battery; and the purchase of the remaining stone segments for the eight casemate guns over the cisterns, and for the forty-five barbette guns.

Returning to Fort Pulaski on October 23, Captain Mansfield immediately reopened construction operations. Soon he focused his attention on the special problem of making preparations to mount additional guns. On October 27, he requested the Engineer Department to send him complete information on the mounting of the barbette guns, stating that he was now ready to begin the construction of the foundations for these guns. Practically a month later the information requested had not been transmitted, and Captain Mansfield again asked for the

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46. R.S., File No. M.733, Oct. 14, 1841.
 47. R.S., File No. M.633, Feb. 12, 1841.
 48. R.S., File No. M.709, Aug. 25, 1841.
 49. R.S., File Nos. M.733, Oct. 14, 1841; M.769, Nov. 17, 1841.
 50. R.S., File No. M.745, Oct. 23, 1841.
 51. R.S., File No. M.750, Oct. 27, 1841.

52.

Department's decision on the position and mounting of the barbette guns.

Two days later, November 27, 1841, the Department forwarded to Captain Mansfield a "Plan showing the positions of the barbet guns of Fort Pulaski, with details of the platforms," accompanied by a letter of explanation. 53. Approximately a week later, he had received this plan, and had requested the Department to make an immediate shipment of plates, pintles, and bolts for the chassis of the forty-five barbette guns. 54. In summarizing the work accomplished during November, Captain Mansfield, on December 6, stated that the masons had been occupied in setting stone traverse segments over the cisterns of the battery fronts, and the carpenters in setting iron gun carriage tracks in the battery casemates. 55. This work on the stone gun segments and carriage tracks of the casemate batteries continued during the remainder of December, 1841. 56.

Early in January, 1842, Captain Mansfield requested the Department to give a decision upon his project to begin the drilling of the pintle blocks for the barbette battery. 57. In an informal report on the status of the work/ near the end of the month, he outlined the existing ordnance situation at Fort Pulaski. Most of the iron tracks for the casemate guns were then laid, including those under nineteen of the twenty guns then at Fort Pulaski. The twenty guns were mounted in the following positions: three along the south front, two on the southeast front, seven on the east front, seven on the north front, and one in the northeast angle. He observed that the nineteen guns under which

52. R.S., File No. M.774, Nov. 25, 1841.

53. See plan, Drawer 70, Sheet 14, Construction Section, office, Chief of Engineers, U. S. Army; cf., R.S., File No. M.781, December 6, 1841.

54. R.S., File Nos. M.779, Dec. 4, 1841; cf., M.781, Dec. 6, 1841.

55. R.S., File No. M.780, Dec. 6, 1841.

56. R.S., File No. M.796, January 7, 1842.

57. R.S., File No. M.799, January 7, 1842.

the tracks had been laid were at last completely in readiness for actual use. He also had on hand granite segments for forty-five barbette guns, and stated that the remaining eleven would be included in the next estimate. By March 15, his request for bolts, plates, and pintles for the barbette guns not having been complied with, he reiterated it, and asked for thirty-nine sets, eleven to complete the barbette gun complement, and twenty-eight for the demi-lune.

Work in connection with the mounting of additional guns was not resumed until May when further iron gun tracks were laid in the casemates, and pintles for the casemate embrasures were cut and fitted. During June the laying of the casemate gun tracks was completed, and forms for the concrete foundations of the barbette gun segments constructed. The concrete foundations of the barbette guns on the northeast and southeast fronts were completed and six pintle blocks set. In July the pintle blocks and segments for the barbette battery were transported to the terreplein of the fort. All but two of the blocks were then secured. Six segments were also set. During the month all of the concrete foundations for the segments of the barbette guns were completed. By the end of August all of the pintle blocks and segments of the barbette battery had been set complete. On August 25, Captain Mansfield reported that he had not yet received any barbette guns for his work. In summing up the fiscal year's work

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58. R.S., File No. M.816, January 26, 1842.
 59. R.S., File No. M.841, March 15, 1842.
 60. R.S., File No. M.867, June 4, 1842.
 61. R.S., File No. M.908, July 5, 1842.
 62. R.S., File No. M.932, August 4, 1842.
 63. R.S., File Nos. M.942, August 25, 1842; M.950, Sept. 3, 1842.
 64. R.S., File No. M.942, August 25, 1842.

at Fort Pulaski in connection with its armament, Captain Mansfield, on October 5, 1842, noted the installation of the pintle blocks and stone segments for fifty-six barbette guns, all laid in readiness for the iron traverse tracks; laying of the stone traverse segments over the eight cisterns in the battery casemates; and the completion of the laying of the iron gun tracks in the casemates. Twenty-eight granite pintle blocks and segments for the demi-lune guns had been procured, but not installed.

Following a long suspension of construction at Fort Pulaski during late 1842 and early 1843, the work was resumed in the summer of 1843, with special attention being placed on the construction of the demi-lune. By January 23, 1844, work on the demi-lune had progressed to the extent that the consideration of plans for the mounting of guns thereon was necessitated. On that date, Captain Mansfield requested of the Department that the "plan for securing the pintle blocks as now set in the main work, be furnished soon; as the present is the most favorable time that probably will ever occur here to do the work." Apparently Mansfield had misplaced his original plans which had been followed in erecting and securing the pintle blocks of the fort's barbette battery during 1842. Before the end of the month however, the Department had forwarded to him a new "plan for securing the pintle blocks of the Barbette Battery," intended for his use when the demi-lune gun mounts were installed. During February, March, and May, 1844, finishing

65. R.S., File No. M.976, Oct. 5, 1842.

66. R.S., File Nos. M.976, Oct. 5, 1842; M.1123, July 28, 1843; M.1224, January 7, 1844.

67. R.S., File No. M.1235, January 23, 1844.

68. R.S., File No. M.1243, February 13, 1844.

work was resumed on the platforms of the barbette battery of the fort, and the fitting of the iron traverse tracks to the stone gun segments already laid, was carried out to completion. Late in November, 1844, work was recommenced on the barbette battery, and the gun plate blocks on the south and southeast fronts were strengthened with concrete. Similar work was continued in December, 1844.

A change of commanding officers was destined for Fort Pulaski during the year 1845. Captain Mansfield, who had faithfully retained the command for fourteen years applied for a transfer on May 31, 1845. He gave as his main reasons for the desired change, his poor state of health, and the approaching completion of the fort. Since immediate action could not be taken on this request by the Department, Captain Mansfield then requested a leave of absence from July 1 to November 1, 1845. This was granted on June 16. Prior to his departure from the island, however, the Department began an investigation of the exact status of the work. On June 11, the Department requested Captain Mansfield to forward a complete inventory of the existing ordnance at Fort Pulaski. This order was complied with on June 20. The armament of Fort Pulaski then consisted of twenty, long thirty-two pounder casemate guns, mounted complete, with one thousand suitable shot, but no powder. The magazines, two in number, on either end of the gorge face, were then ready to receive powder at

69.

U.S., File Nos. M.1261, March 11, 1844; M.1278, April 5, 1844; M.1380, October 18, 1844.

70.

U.S., File Nos. M.1312, June 11, 1844; M.1396, November 4, 1844; M.1409, Dec. 7, 1844.

71.

U.S., File No. M.1423, January 7, 1845.

72.

U.S., File No. M.1475, May 31, 1845.

73.

Ibid.; cf., U.S., File No. M. 1480, June 10, 1845.

74.

U.S., File No. M. 1482, June 20, 1845.

any time. Captain Mansfield stated that the ordnance then required to complete the armament of the fort's casemate battery consisted of: thirty-one long thirty-two pounders and four carronades, or howitzers for the flanking defense, with suitable carriages and implements, and an adequate supply of balls and shot. The remainder of the ordnance required for the fort and outworks included: barbette of main work, forty seacoast twenty-four pounders, twelve seacoast eight inch howitzers, two eight inch siege howitzers, and four eighteen pounders; demi-lune, fourteen seacoast thirty-two pounders, fourteen seacoast twenty-four pounders, and two coehorns; advanced battery, one thirteen inch, and seven ten inch heavy seacoast mortars. Captain Mansfield requested the immediate shipment of the guns for the casemate battery, and that the other guns be shipped as soon as desirable "if there be a distant prospect of war." The Mexican-Texan situation was then gradually assuming a hostile aspect, and apparently Captain Mansfield was already entertaining some vague fears over the comparatively unarmed condition of Fort Pulaski, in the face of a possibly threatening exigency. In concluding this inventory, he announced that the armament schedule as given in the Department's letter of March 21, 1842 for Fort Pulaski, had been followed in outlining necessary requirements, with the exception that one gun had been added to the demi-lune complement, and two additional for the barbette.

It is well to pause just a minute and analyze the proposed armament of Fort Pulaski in the light of its modifications since the Department's projected ordnance schedule of 1831. Mansfield in 1835 had suggested a drastic reduction of the Department's ordnance schedule of 1831, advising that the 1831 total of one hundred and seventy-two pieces be reduced to less than half. The Department

apparently did not heed such a sweeping suggestion, however. The Department's letter of March 21, 1842 had enclosed a new schedule of ordnance calling for a total of one hundred and forty-eight pieces. In his letter of June 20, 1845, just noted, Captain Mansfield, in outlining his suggestions as to the projected armament of Fort Pulaski had followed the Department's schedule of March 21, 1842, except that he had added three guns, making a new total of one hundred and fifty-one pieces.

Several days later, on June 24, 1845, the Department informed Captain Mansfield that a requisition had been made for all the guns proposed for the main work, but not for those of the demi-lune, since it was believed that the latter guns could not be mounted at an early date. ^{75.} In acknowledging this communication, Captain Mansfield, on June 28, remarked that he feared the Department's decision on the demi-lune guns to be based on the supposition that the breast-high wall of the demi-lune had to be constructed before the guns could be mounted. However, he continued, if the Department would allow him to substitute an earth slope temporarily for the breast-high wall, the parapet could be placed immediately, as could the remaining pintle blocks and segments for the guns. ^{76.} This re-

75. The Department's requisition, though never filled, included:

- 31, 32-pdr.guns - casemate
- 4, 24 " carronades - casemate
- 40, 24 " guns - barbette
- 4, 18 " guns - "
- 12, 8 in. seacoast howitzers - barbette
- 2, 8 " siege " "
- carriages, etc.

See Letters to Officers of Engineers No. 13, p. 206;
 of., letter, Captain Mansfield, to Colonel Totten, Chief of Engineers,
 June 28, 1845, supplement to R.S., File No. M.1482, June 20, 1845.

76. Ibid.

quisition for the additional guns of the fort was never to be filled.

During June, July, and August, 1845, additional concrete supports were placed under the pintle blocks of the barbette battery of the fort. ^{77.} Meanwhile, Captain Mansfield had left Fort Pulaski for the last time, on July 1, 1845, and on August 11, he was ordered transferred to the Texas frontier. ^{78.} A communication from Lieutenant B. S. Alexander, temporarily in command of Fort Pulaski, near the end of the summer, contained evidence that an ordnance sergeant had been stationed at the fort, apparently for the first time. On August 12, 1845, in transmitting a requisition for miscellaneous ordnance stores, he informed the Department that "we have an ordnance Sergeant here now and guns are much in want of Lacker (sic) and oil and carriages of putty and paint." ^{79.}

In September, Lieutenant B. S. Alexander, who had now succeeded Captain Mansfield, as commander of Fort Pulaski, carried on further negotiations with the Department in regard to the completion of the demi-lune, and its armament. ^{80.} The Department requested additional information concerning the proposed breast-high demi-lune wall on September 3. Before Alexander could answer, explaining his plans by which the wall was to be built, and additional demi-lune gun platforms constructed, the Department authorized the construction of the wall on September 10.

^{81.} Alexander thereupon immediately began its foundations. A few weeks later, in summing up the work accomplished at the fort during the fiscal year 1844-45, and commenting on the project's status, Lieutenant Alexander observed on October 6, 1845 that the

77. R.S., File Nos. M.1490, July 1, 1845; A.461, August 4, 1845; A.467, September 4, 1845.

78. R.S., File Nos. M.1492, July 1, 1845; M.1505, August 14, 1845.

79. Exactly what this requisition called for is not known, but it apparently included only maintenance supplies. See R.S., File No. A.464, August 12, 1845.

80. R.S., File No. A.474, October 6, 1845.

81. R.S., File Nos. A.468, September 12, 1845; A.474, October 6, 1845.

"Work is now susceptible of a strong defence. Within the main gate the fort is ready for all its guns, and the Demi-Lune and Advanced Battery could be prepared for their guns on short notice."^{82.}

During October and November, 1845, Lieutenant Alexander continued the work on the gun platforms of the demi-lune. In October concrete foundations of certain of the traverse circles were laid and additional pintle blocks were prepared and set. This work was concluded in November with the completion of the concrete under the traverse circles and around the pintle blocks, and the setting of the circles and blocks.^{83.} About the middle of December, 1845, work was suspended at Fort Pulaski, and Lieutenant Alexander transferred eleven miles up the Savannah river to Fort Jackson, the repairs of which he was to supervise for the next seven months. During the interim Fort Pulaski was left in charge of the ordnance officer then stationed there.^{84.}

Lieutenant Alexander returned to Fort Pulaski on June 22, 1846, and immediately reopened operations.^{85.} On July 15, he transmitted to the Department a requisition for additional ordnance supplies.^{86.} During August masonry blocks were constructed around the pintle centers of the demi-lune gun mountings, and in September further traverse stones for the demi-lune guns were set.^{87.} By October 6, all the work in connection with the demi-lune gun mountings had been finished

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82. R.S., File No. 474, Oct. 6, 1845.
 83. R.S., File Nos. A.483, Nov. 3, 1845; A.487, Nov. 17, 1845; A.491, Dec. 1, 1845.
 84. R.S., File Nos. A.486, Nov. 14, 1845; A.562, July 1, 1846. The exact identity of this officer is not known, but he was probably Sergeant James H. Willard, who was at the fort two years later. See R.S., File No. A.663, May 3, 1847.
 85. R.S., File No. A.562, July 1, 1846.
 86. R.S., File No. A.565, July 15, 1846. The type of supplies asked for is not known.
 87. R.S., File Nos. A.579, Sept. 4, 1846; A.581, Oct. 3, 1846; A.592, Oct. 6, 1846.

with the exception of the laying of the gun tracks, an operation apparently
 88.
 never to be fully completed.

No further work in preparation for the mounting of additional guns
 at Fort Pulaski was carried out before the practical completion of the fort
 structure early in 1847. On April 3, 1847, Lieutenant B. G. Alexander reported
 to the Engineer Department "that at date everything in, about, or pertaining
 to the main work and its outworks is complete, and they are now ready for their
 89.
 entire armament." His optimistic outlook on the possibility of an early
 completion of the fort's armament was destined never to be fulfilled prior to
 the Civil War, however.

Two years were to elapse before any new work was undertaken to complete
 the armament of Fort Pulaski. Late in the spring of 1849, General Joseph G.
 Totten, Chief of Engineers, made an inspection trip to Fort Pulaski, and sug-
 gested that the north wharf on the island be reconditioned in order to handle
 90.
 any ordnance which might be landed there. By June 20, 1849, Lieutenant
 J. F. Gilmer, then in command of Fort Pulaski, reported the north wharf to be
 fully repaired in compliance with General Totten's suggestion, and in readiness
 91.
 for the reception of the guns intended for the full armament of the fort.
 An ordnance sergeant was then stationed regularly at Fort Pulaski, and often

88. R.S., File No. A.592, October 6, 1846.

89. R.S., File No. A.653, April 3, 1847.

90. R.S., File No. G.200, May 25, 1849.

91. R.S., File No. G.204, June 20, 1849. Lieutenant Alexander was transferred
 from Fort Pulaski in March, 1848. He was succeeded by Lieutenant I. I.
 Stevens; who was in turn succeeded by Lieutenant J. F. Gilmer in November,
 1848. See R.S., File No. G.250, December 1, 1848.

had the fort in charge during periods when construction was suspended. ^{92.} During the fiscal year 1850-51, ending June 30, 1851 some work was done enlarging ^{93.} and deepening the pintle holes of the casemate batteries.

As early as mid-summer 1853, Captain Gilmer proposed the beginning of the construction on the advanced battery for Fort Pulaski. On July 13, 1853, he suggested an additional appropriation for the next two fiscal years in order that this work, which would have provided at least eight or ten more guns, could ^{94.} be undertaken. Almost three months later, on October 8, he repeated this suggestion, urging a greatly increased appropriation in order that among other things this battery giving an additional number of guns on the main channel of the Savannah river, might be constructed. ^{95.} This project could not immediately be commenced, however. During the fiscal year 1854-55 much of the appropriation had to be expended on repairs at the fort, occasioned by the great hurricane of September ^{96.} 8, 1854.

Soon after the opening of the year 1855 the War Department adopted a completely new schedule of ordnance for Fort Pulaski. The Board of Engineers for Fortifications assembled by the order of the Secretary of War early in the year, and decided that the armament of Fort Pulaski, when completed, should consist of

North, Northeast and Southeast Fronts,	59,	42	pdr. guns, casemate
South Front,	11,	24	" " "
Flanks,	2,	24	" howitzers, casemate

92. The ordnance sergeant stationed at Fort Pulaski during this time was James H. Williard. See R.S., File Nos. A.665, May 3, 1847; A.729, March 26, 1848; G.306, August 2, 1849; G.362, October 2, 1850.

93. R.S., File Nos. G.405, July 17, 1851; G.416, October 7, 1851.

94. R.S., File No. G.533, July 13, 1853. Gilmer became a captain on July 1, 1853.

95. R.S., File No. G.570, October 8, 1853.

96. R.S., File Nos. G.729, February 16, 1855; G.777, August 7, 1855.

North Front,	13,	8 in.	Seacoast howitzers, barbette
Northeast and Southeast Fronts,	26,	"	columbiads, barbette
South Front,	4,	"	Seacoast howitzers "
" "	9,	24 pdr. guns,	barbette
Gorge Front,	4,	12 "	" "
Demi-lune, Right Front,	15,	32 "	" "
" , Left Front,	13,	24 "	" "

97.

This order was transmitted to Captain Gilmer on April 10, 1855. It provided for a rather drastic revision of the proposed armament for Fort Pulaski, calling for a total of one hundred and thirty-six pieces. While this total was less than the one hundred and forty-eight pieces as proposed by the Engineer Department on March 21, 1842, and the one hundred and fifty-one pieces as suggested by Captain Mansfield on June 20, 1845, this 1855 schedule provided for the installation of a more effective type of gun, the columbiad. It should also be noted that the 1855 schedule did not allow for the arming of the advanced battery. The proposed installation of the twenty-six columbiads on the barbette involved the complete remodeling of twenty-six gun platforms on the terreplein. Platforms also had to be provided for the thirteen seacoast howitzers on barbette.

Captain Gilmer soon suggested to the Department that work on the advanced battery and the remodeling of the barbette gun platforms be commenced. Both on August 7, and October 1, 1855, he urged the appropriation of money to build the advanced battery, and on the latter date included in his project of "work yet to be done", the establishment of "gun centres and platforms to suit ^{96.} the proposed change of armament." On October 10, he transmitted to the

97. Letter, Lieutenant J. D. Rutz, in charge of Engineer Department, Washington, to Captain Gilmer, April 10, 1855, No. 23, Letters to Officers of Engineers, pp. 100-101.

98. R.S., File Nos. G.777, August 7, 1855; G.789, October 1, 1855.

Department his complete estimates on the cost of building both the advanced battery and the columbiad gun platforms, calling for an outlay of over thirty thousand dollars in addition to the regular appropriation for the next two years.^{99.} This work was not commenced during the fiscal year 1855-56, ending June 30, 1856, however, and the only work during this period, in connection with the fort's armament, was the enlarging of the pintle holes for the flank guns.^{100.}

Meanwhile a new ordnance sergeant had to be transferred to Fort Pulaski. Sergeant Ernest Messer, successor to Sergeant Williard, had contracted consumption, and an exchange of posts was arranged with Ordnance Sergeant Luke Walker, at the Oglethorpe Barracks in Savannah. Unfortunately the exchange did Sergeant Messer very little good. His case was in its last stages and he died on April 10, 1857 in Savannah.^{101.}

During the spring of 1857, Captain Gilmer again took up the project of building an advanced battery and remodeling the barbette gun platforms for Fort Pulaski. On March 16, he informed the Department that due to the severity of the past winter and urgent duties elsewhere,^{102.} there still existed certain important work at the fort not yet "entered upon." In this category he included the building of the advanced battery and the remodeling of the barbette gun platforms.^{103.} This work he planned to begin as soon as possible. Some two months later, on May 23, he requested the Department to furnish him the plans and instructions necessary to construct the columbiad platforms in order that he might

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99. R.S., File No. 769, October 10, 1855.
 100. R.S., File Nos. G.855, April 18, 1856; G.872, July 15, 1856; G.887, October 3, 1856.
 101. R.S., File Nos. G.865, June 14, 1856; G.917, January 1, 1857; G.970, April 25, 1857.
 102. Captain Gilmer was then also in charge of the fortifications at Charleston, South Carolina.
 103. R.S., File No. G.946, March 16, 1857.

104.

begin the work. The Department had overlooked, since the time the armament change was proposed in 1856, the forwarding of these plans, and now agreed to send them within a few days. However, no actual construction was commenced on the new barbette platforms during the remainder of the year 1857, or in 1858 up to September 30. Apparently the project to build an advanced battery at Fort Pulaski was abandoned before the end of the year 1857.

Fort Pulaski received a new commanding officer in the mid-summer of 1858, and he immediately initiated preparations to begin the construction of the new barbette gun platforms. On July 13, 1858, Captain J. F. Gilmer was relieved of the Fort Pulaski command by Lieutenant W. H. C. Whiting. About a month later, on August 17, Lieutenant Whiting reported to the Department that the materials for the new barbette gun platforms of the northeast front had been purchased, and it was his plan to complete the platforms for this front during the ensuing winter, and the rest, those for the southeast front, during the next year. In the same letter he made the significant statement that

"With the exception of the barbette platforms of the N.E. and S.E. Fronts, which require a change to suit the 8" columbiads to be mounted, Fort Pulaski is ready to receive its garrison, armament and stores."

Work on thirteen of the new columbiad platforms commenced as soon as the year 1859 opened. From early in January through the 31st of May, 1859, carpenters were preparing concrete form boxes for the concrete foundations of the new platforms, and the masons were laying the concrete foundations, and cutting and fitting the traverse stones of the platforms. With the suspension of construction at

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104. R.S., File No. G.988, May 23, 1857.
 105. R.S., File No. G.999, June 5, 1857.
 106. R.S., File Nos. G.1076, October 9, 1857; G.1255, September 30, 1858.
 107. R.S., File No. W.2158, July 15, 1858.
 108. R.S., File No. W.2174, August 17, 1858.
 109. R.S., File Nos. W.2248, Feb. 16, 1859; W.2257, March 8, 1859; W.2277, April 19, 1859; W.2297, May 16, 1859; W.2308, June 6, 1859.

Fort Pulaski for the fiscal year 1858-59 occurring on May 31, only thirteen
 110.
 of the proposed twenty-six barbette gun platforms were completed. In sum-
 ming up the work accomplished during the fiscal year 1858-59, Captain Whiting
 on July 26, informed the Department that most of the year's construction work
 had been devoted to the "changing of the gun platforms of certain of the bar-
 bette guns to suit the proposed changes in the armament of the fort." He re-
 ported the completion of thirteen new platforms for the barbette columbiads, six
 being located on the northeast front, six on the southeast front, and one at the
 east salient. Where these new platforms were located, the parapet walls had
 been "adjusted to suit them." However, he observed that there yet remained to
 be changed the platforms for thirteen additional columbiads, and also for thir-
 111.
 teen seacoast howitzers en barbette. Captain Whiting concluded his communi-
 cation of July 26, by stating that

"When this (the completion of the new barbette gun platforms) is
 done the work will be completed except the clearing of the ditches." 112.

Unfortunately Whiting's proposal of July 26, 1859 to build twenty-six
 new barbette gun platforms during the fiscal year 1859-60, in addition to the
 thirteen constructed in 1859, was destined never to be carried out. No funds
 were appropriated for the Fort Pulaski work in 1859-60, and early in August,
 1860, we find Whiting pleading with the Department for an appropriation adequate
 to remodel the additional twenty-six barbette gun platforms during the next two
 years. On August 10, he transmitted his annual report on work accomplished

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110. R.S., File No. W.2297, May 3, 1859; W.2303, June 6, 1859.
 111. R.S., File Nos. G.1255, September 30, 1858; W.2174, August 17, 1858;
 W.2323, July 26, 1859.
 112. R.S., File No. W.2323, July 26, 1859. Whiting became a captain on
 December 13, 1858.

during the fiscal year ending June 30, 1860. During the year only maintenance work had been carried on at the fort due to the fact that no funds had been appropriated. The most significant statement in the report was to the effect that the completion of the fort and its occupation by a garrison was still contingent mainly on the construction of the twenty-six additional barbette gun platforms. Again he reiterated his apparently unheeded and oft repeated statement that

"With the exception of the barbette platforms, mentioned, this fort is ready to receive its guns, munitions and garrison."¹¹³.

This opportunity to complete the preparations to arm the fort fully, and to provide for its early occupation by a garrison of United States troops, was to be neglected during the subsequent months until it was too late, and the chance was lost. During the remaining months of 1860 nothing further was accomplished on the proposed barbette platforms. ¹¹⁴ And then, about noon on January 3, 1861, Fort Pulaski was seized by several detachments of the Georgia State Troops under the general command of Colonel A. R. Lawton of Savannah, and Fort Pulaski passed from the control of the Federal Government until recaptured during the siege of April 10 and 11, 1862. ¹¹⁵

113. R.S., File No. W.2488, August 10, 1860; W.2489, August 15, 1860.

114. R.S., File Nos. W.2489, Oct. 7, 1860; W.2526, January 9, 1861.

115. Letter, Colonel A. R. Lawton, to Governor Joseph E. Brown (Georgia), January 3, 1861, cited in Jones, Charles G. Jr. Historical Sketch of the Chatham Artillery during the Confederate Struggle for Independence. Albany, N.Y. 1867. p. 15; cf., letter, Captain W. H. C. Whiting, to General J. G. Totten, Chief of Engineers, January 7, 1861, R.S., File No. W.2525, January 7, 1861; cf., Official Report to the United States Engineer Department of the Siege and Reduction of Fort Pulaski. . . By Brig.-Gen. Q. A. Gillmore, U.S. Vols., New York, 1862, pp. 32 - 36.

The condition of Fort Pulaski, of its armament, and of its ordnance supplies, was rather chaotic at the time of its occupation in January, 1861. The account given by Jones of the scene that greeted the Georgia forces upon their arrival at Fort Pulaski, depicts it to have been one of utmost confusion. There was no furniture in the quarters. No ordnance, quartermaster, or commissary stores were on hand. The magazines contained only a few hundred pounds of an inferior grade of powder. The supply of solid shot was limited, "and there was not a shell ready for action." The complete and only armament of the fort as then mounted "consisted of only twenty thirty-two-pounder guns, the carriages of which were, in most instances, in bad condition and unserviceable." The wooden portions of the carriages had been "sadly invaded" by "dry rot." Implements with which to handle the guns were scarce. The barbette platform did not then mount "a single gun." This condition of the armament of Fort Pulaski at the time of its seizure was confirmed by Charles H. Olmstead, who assumed the command of the fort later in the year 1861, and who surrendered it at the time of its reduction by Federal forces in April, 1862. As adjutant of the Georgia force under Colonel Lawton, which took possession of the fort in January, 1861, Major later Colonel Olmstead was then naturally conversant with the armament situation at Fort Pulaski. His account of the condition of the fort and its armament, as it then existed, shows that

116.

Jones, op. cit., p. 23.

117.

Olmstead, Charles H. "Fort Pulaski." The Georgia Historical Quarterly, Vol. 1, No. 2, pp. 104-105. Henceforth cited as Olmstead, Pulaski.

118.

Olmstead, Charles H. Reminiscences, pp. 170-172 (285 page unpublished ms volume in possession of Miss Florence Olmstead, Savannah, Ga.) Major Olmstead became colonel of the First Volunteers Georgia Infantry on December 26, 1861. See letter, Major Olmstead, Fort Pulaski, to Florence Olmstead (his wife), Dec. 26, 1861 (ms. letter in possession of Miss Florence Olmstead, Savannah); cf., Jones, C.E. Georgia in the war 1861-1865, Augusta, Ga., 1909, p. 35.

"There was one tier of casemates opening on to the parade by large double doors, and platforms had been arranged for another tier of guns on the ramparts. In the casemates were 20 long naval 32 pdrs. mounted on iron carriages, but there was no other armament." 119.

Thus, the twenty guns as mounted in the casemates of Fort Pulaski in 1840, were still there in 1861, and then constituted the sole armament of the fortification. Despite the extensive schedules of armament proposed for Fort Pulaski in 1828 and 1831, and their subsequent diverse modifications and additions in 1835, 1842, 1845 and 1855, the only ordnance ever to be actually mounted at Fort Pulaski prior to the Civil War was these twenty long thirty-two pounder casemate guns. In conclusion, several succinct facts stand out. First, Mansfield, who aided in the revision of the fort's plans in 1831, helped to design a fortification calling for an armament which would probably have been partially ineffective if mounted. That he must have soon realized this situation is shown by his drastic ordnance recommendations of March 19, 1835. Second, it is rather inexplicable why the Engineer Department and Mansfield complacently continued to construct the fort by such plans in the face of such a condition. Perhaps the realization of the futility of arming a fort which could mount only partially effective ordnance is one explanation for the Department's reluctance to install the complete armament, and for its desperate efforts to provide for a new type of armament as late as 1855-60.

119. Olmstead, Pulaski, . . p. 100. The carriages for the 20 long 32 pounder guns were iron, but the chassis were of wood, and when Jones refers to the "dry rot" in the carriages, he apparently means the condition of the chassis. See also R.G., File No. M.523, May 6, 1840. Types of casemate carriages and chassis are explained in The Ordnance Manual for the Officers of the United States Army. Richmond, Va. 1861 2d., Edition. pp. 49, 73, 88.

APPENDIX.

TABLE I

Complete armament proposed for Fort Pulaski by the United States Engineer Department, January 17, 1828.

Fort.			
	1.		2.
First and Second Tier, North Front,	16 guns,		Casemate.
" " " " , South " ,	16 " ,		"
" " " " , Northeast Front,	20 " ,		"
" " " " , Southeast " ,	20 " ,		"
" Tier, Angle of the N.E. and S.E. Fronts,	1 gun,		"
Second Tier, One in each Angle, a total of	3 guns,		"
Terreplein, Two guns in each Angle,	6 " ,		Barbette.
" , Northeast Front,	10 " ,		"
" , Southeast Front,	10 " ,		"
" , North Front,	8 " ,		"
" , South Front,	8 " ,		"
Gorge Front,	6 " ,		"
Demi-Lune			
Terreplein,	3 " ,		"
Advanced Battery			
Eight mortars and eight howitzers,	16 " ,		"
Total 145 Pieces.			

1. The fort as then planned consisted of two tiers and a terreplein. The second tier was eliminated when the plans were revised in 1831.

2. Type of guns not specified in this schedule.

TABLE II.

Complete armament proposed for Fort Pulaski by the United States Engineer
1.
Department, September 30, 1831.

Fort.

First Tier, 13 guns in each of four faces,	48 guns,	^{2.} Casemate
" " , 1 gun " " angle,	3 "	" "
" " , 2 carronades in each demi-bastion,	4 carronades	" "
Terreplein, 12 guns in each of four faces,	48 guns,	Barbette
" , 1 gun " " angle,	3 "	" "
" , 2 guns on " demi-bastion,	4 "	" "
" , 5 " " Gorge wall,	5 "	" "

Demi-Lune

Terreplein, 14 guns on each face,	28 "	" "
" , 1 gun on the pan-coupe,	1 gun,	" "

Advanced Battery

Terreplein,	12 guns,	" "
" ;	8 mortars,	" "
" ;	8 howitzers,	" "

Total 172 Pieces.

1. This schedule superseded the original one proposed in 1823.

2. Type of guns not specified in this schedule.

TABLE III.

Revised armament recommended by Lieutenant Joseph K. F. Mansfield, for
 1.
 Fort Pulaski, March 19, 1855.

Fort.

Demi-Bastion, two carronades in each, . . . 4 carronades, Casemate
 Terreplein, 51 guns,² Barbette

Demi-Lune.

Terreplein, 3 field guns,³ Barbette

Advanced Battery.

Terreplein, 8 mortars, Barbette

Total..... 66 Pieces.

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1. This recommendation was not adopted by the Engineer Department.
 2. Type of guns not specified in this schedule.
 3. The number of field guns not definitely specified, but this number appears to be a logical approximation.

TABLE IV.

Guns mounted at Fort Pulaski in April and May, 1840.

Fort.

South Front,	3,	32 pdr.,	guns,	Casemate
Southeast Front,	2,	" "	" "	" "
East Front,	7,	" "	" "	" "
North Front,	7,	" "	" "	" "
Northeast Angle,	1,	" "	" "	" "

Total 20 Pieces.

TABLE V.

Revised armament proposed for Fort Pulaski by the United States
 1.
 Engineer Department, March 21, 1842.

Fort.

First Tier, mounted, ^{2.}	20, 32 pdr., guns, Casemate
" " ,	31, " " " , "
" " ,	4, carronades, "
Terreplein,	40, 24 pdr., guns, Barbette
" ,	2, 18 " " "
" ,	12, 8 in., howitzers, "
" ,	2, " " , seige howitzers, Barbette

Demi-Lune.

Terreplein,	14, 32 pdr., guns, Barbette
" ,	13, 24 " , " "
" ,	2, coehorns, "

Advanced Battery.

Terreplein,	1, 15 in. Mortar, Barbette
" ,	7, 10 in., " , "

 Total 148 Pieces.

-
1. This schedule is a revision of the one made in 1831.
 2. These 20 guns were mounted in 1840, see Table IV.

TABLE VI.

Revised armament recommended for Fort Pulaski by Captain Joseph
 1.
 K. F. Mansfield, June 20, 1845.

Fort.

First Tier, mounted, ^{2.}	20, 32 pdr., guns, Casemate.
" "	31, " " , " "
" "	4, carronades, "
Terreplein,	40, 24 pdr., guns, Barbette.
"	4, 18 " , " "
"	12, 8 in., howitzers "
"	2, 8 in., seige " "

Demi-Lune.

Terreplein,	14, 32 pdr., guns, "
"	14, 24 pdr., " , "
"	2, coehorns, "

Advanced Battery.

Terreplein,	1, 13 in., Mortar, "
"	7, 10 in., " , "

Total.... 151 Pieces.

-
1. The Engineer Department did not adopt this recommendation.
 2. These 20 guns were mounted in 1840, see Table IV.

TABLE VII.

Revised armament proposed by the United States Engineer Department
1.
for Fort Pulaski, April 10, 1855.

Fort.

First Tier, North, N.E., S.E. Fronts,	39,	48 pdr., guns,	Casemate
South Front,	11,	24 " , "	"
Flanks,	2,	24 " howitzers,	"
Terreplein, North Front,	13,	8 in. Seacoast "	Barbette
" , N.East and S.East Fronts,	26,	" Columbiads,	"
" , South Front,	4,	" Sea. howitz.,	"
" , " "	9,	24 pdr., guns,	"
" , Gorge " ,	4,	12 " , "	"

Demi-Lune.

Terreplein, Right Front,	15,	32 pdr., guns,	"
" , Left " ,	13,	24 " , "	"

Total 136 Pieces.^{2.}

-
1. This schedule never executed. Note that for first time the use of the columbiad is proposed.
 2. Note that this schedule did not provide for the arming of the advanced battery.

#40.

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*Letters "B", "W", "V", "C", "W", and "C" represent the first initial of the Engineer Officers, thus: B- Bernard or Babcock, W- Wansfield, A- Alexander, S- Stevens, C- Gilmer, and C- Cutting.

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