REORGANIZATION OF THE NAVY DEPARTMENT AND DEVELOPMENT OF THE MODERN AMERICAN NAVY, 1881-1897

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I

Throughout the history of the United States the nation's navy has played a significant part inasmuch as the value of an efficient navy has been exemplified in every major conflict of our country. While the navy, during the period of the Revolutionary War, was most inadequate, yet with the aid of privateers and merchantmen converted into naval vessels it rendered a most valuable service in the cause of independence.[1] Shortly after the establishment of the federal government under the Constitution the navy played an important part in abolishing unjust tribute which had been levied on American commerce by the Tripolitan States.[2] At the outbreak of war in 1812 the navy was still small because of the Republican policy of retrenchment, but nevertheless it was an effective organization and exhibited considerable efficiency in the conflict with Great Britain from 1812 to 1815.[3] Later, during the war with Mexico, 1846-1848, the navy again contributed to the American's success in landing the military forces at Vera Cruz, in blockading the Mexican ports, and in completely controlling the Gulf of Mexico.[4] In the Civil War, 1861-1865, the navy repeated services of inestimable value, first by effecting a blockade of the southern ports by the Union Government which led to the paralyzing of the South's economic life, and second by cooperating with the military forces.[5]

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1. Report of Secretary of Navy Hunt, 1881 - House Exec. Doc. 47th Cong., 1st sess., p. 4.
2. Ibid.
3. Ibid.
4. Ibid.
5. Ibid.

Because of these meritorious achievements the navy had won the acceptance of American citizens as a very necessary agency for the maintenance and promotion of our national interests. This attitude was well expressed by William H. Hunt, Secretary of the Navy, in his report for 1881 in which he stated:

> Achievements such as these constitute a strong claim upon the affections of a patriotic and grateful people..... They inculcate the spirit of pride of country which imparts a chivalrous charm to patriotism and is a stimulant to honorable ambition and the love of glory.[6]

Following the Civil War period the navy had been allowed to deteriorate to so low a state that it seemed likely that it would die of inanition. Congress, following the war, had adopted a parsimonious policy of curtailment whereby appropriations had been made for maintenance, but not for the increase of the navy.[7] Congress had weeded out the faulty ships and sold many, but had made no provisions for replacing them with modern steel vessels.[8] As a result of this program, the Navy Department had been forced to resort to rebuilding ships under their old names and paying for such construction out of the appropriation for "repairs" and such money as had been obtained from the sale of condemned vessels.[9]

While the American navy was rapidly becoming obsolete during the years from 1860 to 1880, certain European countries were resorting to extensive experimentations in the materials and methods of naval construction. Despite the rapid naval developments in Europe, the American people seemed perfectly content to let Europe do the experimenting for them.[10] The

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6. Ibid.
7. John D. Long, "The New American Navy," Volume I, p. 6.
8. Ibid.
9. Ibid.
10. John R. Spears, "[illegible] History of Our Navy from its Origin," p. 526

prevailing opinion favored such a policy as being to the advantage of the nation, since America would save all the cost of expensive experiments and would eventually secure the benefits of the European efforts by adopting their new ideas.[11] The United States had decided to sit back and permit Europe to lead the way in naval construction.

There were several causes for the absence of Congressional legislation for the navy during the period from 1865 to 1881. One of the principal reasons was the apathy and lethargy of the American people, especially during the years immediately following the close of the Civil War. The public as a whole was extremely weary of carrying the burden of armies and fleets.[12] Furthermore, since men and ships had been forthcoming in sufficient numbers to quell the rebellion, the people felt that there would be time enough to raise armies and fleets when another conflict came.[13] There was no appreciation of the need for the continual development and improvement of vessels during periods of peace in order to be prepared for any contingency. This indifference on the part of the public was reflected by a corresponding lack of interest in Congress. Another factor in the deterioration of the navy was the wastefulness of money due to political expediency, much of the appropriations for the "repairs" of vessels was dissipated because certain Congressmen were more interested in making business for their constituencies than in repairing the ships.[14] The geographical position of the

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11. Ibid.
12. George R. Clark, et. al., "A Short History of the United States Navy," p. 407.
13. Ibid.
14. Ibid.

United States also helped to maintain a policy of laxity in regard to the navy. Because of the extensive coast-line and the traditional policy of isolation in foreign affairs there was engendered a feeling of security among the people which encouraged their indifference toward any policy looking to the improvement of the navy.[15] The country had always been able to meet its foreign difficulties successfully, and as a result there seemed to be no need of preparing an adequate fleet as long as there were no imminent dangers. Another reason which explains the reluctance in promoting a naval program in the period immediately following the Civil War was the necessity for retrenchment in expenditures. The principal need of the country was a program of domestic rehabilitation, which called for a considerable outlay of public funds for reconstruction and which likewise absorbed most of the country's energy and interest.

It was during the eighteen-seventies that reconstruction was largely consummated. What then prevented the launching of a new naval program at this time? The problem became one of indecision and doubt rather than of economy or of indifference. Due to European experimentation the improvements in ship construction came with such bewildering rapidity that even the officers and naval experts of the United States could not agree as to the methods of procedure, a situation which caused Congress to avoid the question, and thereby led to considerable delay in the inauguration of a naval building program.[16] This lack of knowledge concerning naval

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15. Long, op. cit., pp. 7-8.
16. Ibid., p. 11. C. F. Clark, op.cid., p. 408.

construction was illustrated by Representative Belford of Colorado when he compared the House debate concerning the authorization of the new ships to the story of the negro parson who said:

> Brethren, we have assembled here on the sacred Sabbath Day to discuss great and sacred questions. In the first place, I will proceed to discuss some matters about which I know a little and you know nothing. In the second place, I will proceed to discuss matters concerning which you know a little and I know nothing. We will then conclude with elaborate dissertations on questions about which none of us knows anything.[17]

By the late eighteen seventies, as a result of years of complacent waiting while Europe did the experimenting, the United States had conserved its naval expenditures to an insignificant amount when compared to the losses sustained in the development of the techniques of naval science.[18] As a consequence there were no men scientifically prepared in the knowledge and technique of modern naval construction. The need for a new navy was apparent, but Congress was groping about in the darkness of ignorance and bewilderment. When Congress finally did act the country was wholly unprepared to construct a single one of the recommended armored vessels.[19] The United States suddenly discovered that the foundation of all seapower was a shipyard.[20] Without shipyards equipped sufficiently and without skilled mechanics acquainted with modern methods of construction, the United States was unable to adopt the improvements which Europe had developed in the construction of naval vessels.

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17. Long, op. cit., p. 12.
18. Clark, op. cit., p.527.
19. Ibid.
20. Ibid., p. 528.

What was of more immediate concern to those interested in national defense and national welfare was the decrepit condition into which the fleet had deteriorated. The naval force, once the pride of the nation, was in a moribund state and seemed likely to disappear entirely without immediate assistance. In 1879 the list of ships was as follows: (1) Five steam vessels, which were classed as first-rate, had been built twenty-five years before and were obsolete; (2) twenty-seven second-rate vessels, of which three lay rotting on the stocks and seven were unfit for repair, while only nine were available for sea duty; (3) there were twenty-nine third-rate vessels, of which fifteen were available for naval purposes.[21] The remainder of the fleet was comprised of lesser sailing vessels, none of which was modern or efficient.[22] The United States navy did not possess a single vessel comparable to the modern steel vessels of such foreign powers as Great Britain and France. By 1881 the naval situation presented the low-water mark in the equipment and service of the American Navy. "The shadow of neglect had almost completely obliterated the navy by 1881.... The survivors of the proud, modern navy of 1865 were chiefly the pre-war wooden types carrying smooth-bore guns."[23] The personnel was as deficient as the vessels, inasmuch as none of the officers at most had more than a most theoretical knowledge of up-to-date naval vessels and technical equipment.[24] In the year 1881 there

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21. Long, op. cit., pp. 13-14.
22. Ibid., p. 14.
23. Dudley W. Knox, "A Short History of the United States Navy." p. 319.
24. Ibid.

appeared an engraved picture showing President Garfield reviewing the "fleet" which comprised the best dozen vessels in the navy. They were all of wood and included the "Powhatan," a relic of the eighteen-forties, and the ancient frigate "Constitution."[25]

II

If the year 1881 marked the lowest point in the degradation of the navy, it also marked the turning of the tide in the fortunes of the navy. Public opinion was aroused and consequently there was much public agitation for immediate action in the development of a stronger fleet. Various events had demonstrated the possibility of foreign difficulties, which impressed upon both Congressmen and their constituencies the dire plight of the navy. Henry N. Gorringe writing in the North American Review sounded a warning cry against unnecessary delay in the matter of providing an adequate naval force to protect our sovereignty.[26] He mentioned the possibility of strife with England because of the active sympathy of many Irish-Americans for the struggle of the Irish against English domination. He also pointed out the presence of the strained relations with Spain over the Cuban situation, even though the Cuban revolution of 1868 to 1878 had been temporarily squelched. Then, too, the same author referred to the rather unfriendly Franco-American relations which came as a result of the recent purchase by France of a Panama railroad, a development which was likely to lead to a conflict with the American interests

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25. Clark, op. cit., p. 408.
26. North American Review, May, 1882, p. 487.

there, inasmuch as the United States had been granted exclusive rights by a treaty with New Granada in 1846. There were two other causes for immediate concern in view of the decadent condition of our fleet, namely the extensiveness of the coast line which required protection, and the proximity to Bermuda and Halifax which harbored large British naval establishments.[27] All of these conditions helped to crystallize public opinion and to lead the way to naval construction in 1881.

It was fortunate for the future of the American navy that the presidency was held by an ardent advocate of a new deal for that branch of the government. President Arthur's views were brought out in his first annual message to Congress when he spoke as follows: "I cannot too strongly urge upon you my conviction that every consideration of national safety, economy and honor imperatively demands a thorough rehabilitation of our navy."[28] His was not a belligerent or jingoistic type of address, but a sincere and insistent demand for prompt action. He urged the construction of a strong navy as a means of avoiding as well as repelling dangers.[29] There was no hint of a desire for a navy superior to that of any other nation, but rather for a fleet of respectable proportions capable of preserving the integrity of American interests. In his second annual message Arthur continued his support of a program of naval construction and

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27. Ibid., pp. 487-488.
28. James D. Richardson (editor) "A Compilation of the Messages and Papers of the Presidents," Vol. VIII, p. 51.
29. Ibid.

heartily endorsed the recommendations contained in the report of the Secretary of the Navy.[30] His conception of what program should be developed for the reestablishment of an efficient navy is best brought out in his message to Congress on December 4, 1883, in which he stated:

> I feel bound to impress upon the attention of Congress the necessity of continued progress in the reconstruction of the navy. The condition of the public treasury... makes the present an auspicious time for putting this branch of the service in a state of efficiency.
>
> It is no part of our policy to create and maintain a navy able to cope with that of the other great powers of the world.
>
> We have no wish for foreign conquest and the peace which we have long enjoyed is in no seeming danger of interruption.
>
> But that our naval strength should be made adequate for the defense of our harbors, the protection of our commercial interests, and the maintenance of our national honor is a proposition from which no patriotic citizen can withhold his assent.[31]

Arthur's Congressional message of 1884 was similar in tone, except that it warned the nation against the sense of false security into which it had been lulled by a long period of peace, and expressed the fear that this seeming tranquillity might at any moment be disturbed.[32]

The administration of the affairs of the Navy Department in the years from 1881 to 1885 was in the hands of two

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30. Ibid., p. 140.
31. Ibid., pp. 181-182, cf. "American Naval Policy as Outlined in Messages of the Presidents of the United States from 1790 to 1924." pp. 10-11.
32. "American Naval Policy as Outlined in Messages of Presidents of the United States from 1790 to 1924" p. 11.

secretaries, William H. Hunt and William Chandler. Hunt, a Southerner by birth and training, had entered Yale University, but had been obliged to terminate his studies there because of a lack of funds.[33] However, he continued his legal study at New Orleans in the office of his brothers and in 1844 was admitted to the Louisiana bar.[34] Although he entered political life at a relatively late age, he had always manifested a keen interest in politics. His first public trust came with his election as State Attorney General on the Republican ticket in 1876, but when the Democrats gained control of the state government after the Hayes-Tilden fiasco of 1876, Hunt was displaced.[35] In May 15, 1878, he was appointed associate judge of the United States Court of Claims, a position which he held until his appointment as Secretary of the Navy by President Garfield on March 5, 1881.[36]

When Chester A. Arthur succeeded Garfield to the presidency upon the latter's death in July of 1881, certain cabinet changes were made which resulted in the appointment of William Chandler as Secretary of the Navy in the winter of 1882. Like Hunt, Chandler lacked an intimate knowledge of naval affairs, but his political background and legal training qualified him for the administrative work which he undertook. He had graduated from Harvard Law School and had become a politician and journalist.[37] As a member of the New Hampshire Legislature

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33. Dumas Malone (editor), "Dictionary of American Biography," Vol. IX., p. 397.
34. Ibid.
35. Ibid.
36. Ibid.
37. Ibid., vol. III, p. 617.

as well as speaker of that body, he exhibited unusual talents as a manager.[38] Under Lincoln's administration Chandler was appointed to prosecute frauds in the Philadelphia Navy-Yard, and his work there led to his appointment as solicitor and judge-advocate general of the Navy Department.[39] Under the administration of Andrew Johnson, Chandler was Assistant Secretary of the Treasury, 1865-1867, after which tenure he returned to state politics and also played a prominent part in directing the Republican strategy in the presidential campaigns of 1868, 1872, 1876, and 1880.[40] While his appointment was undoubtedly a reward for faithful political service, yet he brought to the Navy Department a great ability for organization and considerable experience in administration.

On William H. Hunt devolved the task of making the first tangible contribution to the development of a new naval program -- a program which was to be perpetuated long after his short term and was destined to give America once more a real navy. In order to eliminate the danger arising from the advocacy of different and conflicting theories and views concerning the types of naval vessels as well as the materials and methods of construction, Secretary Hunt on June 29, 1881, appointed a Naval Advisory Board to make a thorough study of the problem and then submit a report.[41] The Board was instructed to consider the following matters: (1) The number

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38. Ibid.
39. Ibid.
40. Ibid.
41. Annual Report of Secretary of Navy Hunt, 1881, House Executive Documents, 47th Congress, 1st session, p. 5.

of vessels that should be built, (2) the class, size and displacement of such vessels, (3) the material and form of their construction, (4) the nature and size of the engines and machinery, the ordnance and the internal arrangements of the vessels.[42] The Board was composed of men of high attainments, of practical experience and a knowledge of the most advanced improvements in naval matters.[43]

After long and thorough investigations the Board rendered majority and minority reports, however the conflicting points of the two reports were slight, as indicated in the following words of Secretary Hunt authorizing the report:

> The Department recommends as entitled to the entire approbation of Congress, the adoption of the views of the majority of the board. There is so slight a difference by a few members of it in its entirety, as to justify its being regarded as the unanimous judgment of the board.[44]

The report is interesting in the light of later naval developments because of its modest recommendations. The naval strength as listed by the Board consisted of thirty-two vessels, of which twenty-four were in commission, while the reserve consisted of eight vessels or twenty-five percent of the total. The Board stated that the immediate requirements necessitated

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42. Ibid.
43. Ibid. The members were Rear Admiral John Rodgers, Commodore William G. Temple, Captain P. C. Johnson, Captain K. R. Breeze, Commander H. L. Harrison, Commander R. D. Evans, Commander A. S. Crowninshield, Lieutenant M. R. S. MacKenzie, Lieutenant Edward W. Very, Chief Engineer B. F. Isherwood, Chief Engineer C. A. Loring, Passed Assistant C. H. Manning, Naval Constructor John Lenthall, Theodore D. Wilson and Philip Hichborn.
44. Ibid., p. 6.

forty-three cruisers, while the reserve should be increased to fifty per cent, thereby establishing a navy of sixty-five vessels. However, some of the available vessels were in poor condition, so that the Board recommended five additional vessels, thus increasing the navy to seventy ships. Since there were already thirty-two available, this necessitated the construction of thirty-eight cruising vessels. As to the class, size and displacement of the vessels the Board recommended that there should be two fifteen-knot vessels of about 5,873 tons displacement, six vessels with a speed of fourteen knots and a displacement of 4,460 tons, ten vessels of thirteen knots with 3,043 tons displacement, and twenty vessels of ten knots speed with a displacement of about 793 tons.[45] Of the vessels recommended the last twenty were to be constructed of wood, while the others were to be of steel. In regard to the material of construction the Board advised:

> Notwithstanding the greater cost of steel...the lack of experience in the manufacture of steel frames in this country and the experimental stage that steel ship-building is still passing through in Europe, it should be recommended as the material of construction for the hulls of the fifteen, fourteen, and thirteen knot vessels.[46]

The construction costs of a vessel in each class was estimated by the Board as follows: (1) For a vessel of the fifteen-knot class, $1,780,000; (2) for a fourteen-knot vessel, $1,422,000; (3) for a thirteen-knot vessel, $130,000; (4) for a ten-knot vessel, $218,000.[47]

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45. Ibid., pp. 28-30.
46. Ibid., p. 31.
47. Ibid., p. 34.

In addition to these ships the Naval Advisory Board recommended the possible construction of other vessels, namely: (1) five steel rams of approximately 2,000 tons displacement with an average speed of thirteen knots at a cost of $500,000 each, (2) five torpedo gunboats of 450 tons displacement with a maximum sea-speed of at least thirteen knots at a cost of $145,000, (3) ten cruising torpedo boats of 100 feet length with a maximum speed of not less than twenty-one knots per hour, at a cost of $38,000 each, (4) ten harbor torpedo boats of seventy feet length with a maximum speed of not less than seventeen knots, at a cost of $25,000 each.[48] The total naval expenditure for all of the recommended vessels would amount to $29,607,000. The proposed naval construction program was to extend over a period of eight years, at the end of which time the fleet would consist of twenty-one iron-clads, seventy unarmored cruisers, five rams, five torpedo gunboats, and twenty torpedo-boats.[49] The minority report objected to the use of steel, and, strangely enough, the men opposed were naval constructors Lenthall, Wilson and Hichborn, and chief engineer Isherwood.[50]

The suggestions contained in the report of the Advisory Board were submitted to Secretary Hunt, who included them in his report of December, 1881 recommending Congressional consideration of the several proposals. The House Committee on

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48. Ibid.
49. Ibid.
50. Long, op. cit., p. 18.

Naval Affairs under the chairmanship of Benjamin W. Harris of Massachusetts gave due consideration to the suggestions and rendered a report to the House of Representatives in March of 1882.[51] The Committee recommended the use of steel in the construction of new vessels and asked appropriations for the construction of two cruisers capable of an average speed of fifteen knots, as well as four cruisers capable of an average speed of fourteen knots.[52]

Congress, however, was unwilling to go as far as the Committee on Naval Affairs, so that the suggestions of the Naval Advisory Board were whittled down to a minimum.[53] That fact was shown by the Naval Appropriation Act of August 5, 1882, whose principal provisions regarding the increase of the naval establishment were as follows: (1) An appropriation of $1,750,000 for the repairing and maintenance of naval vessels; (2) no portion of this appropriation was to be applied to repairs of any wooden ships when the estimated cost of such repairs should exceed thirty per cent of the estimated cost of a new ship of the same size and like material; (3) any portion of the appropriation not used for the purposes mentioned above might be applied to the construction of "two steam cruising vessels of war... not to cost more than the amount estimated by the first Naval Advisory Board" to be constructed of steel of domestic manufacture and to have full sail-power and full steam-power;

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51. Ibid., p. 22.
52. Ibid.
53. Ibid., p. 23, cf. James F. Rhodes, "History of the United States from Hayes to McKinley," p. 439.

(4) one of the vessels was to have a displacement of 5000 to 6000 tons, and the other a displacement of 4300 tons to 4700 tons; (5) the Secretary of the Navy was empowered and directed to organize a board of naval officers and experts for his advice and assistance to be called the "Naval Advisory Board," composed of five officers on the active list of the navy in addition to two members from civil life who were to be experts in naval or marine construction; (6) the duties of this Board were three in number, namely, (a) to advise the Secretary in matters relative to the designs, models, plans, specifications and contract for vessels in all their parts, (b) to inspect all materials and work, and to supervise the progress in construction, (c) to approve of all drawings and specifications, and to see that after work had commenced no changes were made if the cost of such changes exceeded $500, unless the Board should give its approval to the suggested changes.[54]

This Act signified a faltering start in the direction of naval progress, but it had serious limitations in that no sums were directly appropriated for the purpose of constructing new steel vessels. The only appropriation made was for the repair and maintenance of vessels already in service and any sums remaining from this might be appropriated for the construction of the two cruisers authorized. This measure did, however, point the way for future naval progress, and by its recommendation for the use of domestic steel it set a precedent which was followed in each succeeding Act. This Congressional measure of 1882 contained another notable provision, namely

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54. United States Statutes, vol. 22, 47th Congress, 1st session, pp. 284-297.

the creation of a second Naval Advisory Board which was to be responsible for recommendations of new ships and to supervise their construction.[55] Their report as submitted to Secretary of Navy Chandler contained the following suggestions: (1) In addition to the two cruisers authorized tp be constructed by the Act of August 5, 1882, there should be built two of the ten second-rate steel cruisers recommended by the first Advisory Board, but their displacement should be limited to 2,500 tons each, and the should have a speed of not less than thirteen knots and cost about $924,825 each; (2) the construction of one of the five steel rams suggested by the first Board, this ram should have a displacement of 2,000 tons, a speed of thirteen knots and should cost $721,000; (3) the construction of one dispatch-boat, 7,500 tons displacement, to be build of iron, to have a speed of not less than fifteen knots, and to cost $460,000.[56]

In response to the Board's recommendations and Chandler's endorsement of the report Congress on March 3, 1883 passed a naval appropriation measure which provided that: (1) no repairs should be made on any wooden vessel when the cost of such repairs exceeded by more than twenty per cent the cost

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55. Members of this second Board were Rear-Admiral Robert W. Shufelt, Mr. Henry Steers, a naval architect, Mr. Miers Coryell, a marine engineer, Chief-Engineer Alexander Henderson, Commander John A. Howell, Lieutenant Edward W. Very and naval constructor Frank L. Fernold.
Report of Secretary of Navy Chandler, 1883, 48th Cong., 1st session, p. 4.

56. Ibid., pp. 154-155.

of a new vessel; (2) $1,350,000 should be appropriated for one steel cruiser of not less than forty-three hundred tons displacement (had been authorized already,) two steel cruisers of not less than twenty-five hundred tons displacement, and one dispatch boat; (3) the Secretary of the Navy was authorized to invite proposals from all American shipbuilders for the construction of these vessels and the contracts were to be awarded to the lowest bidder after at least sixty days advertisement, but the total cost was not to exceed the amount estimated by the Naval Advisory Board; (4) the vessels had to conform to the contract terms and be approved by the Board before acceptance; (5) the pay of the two civilian members of the Board was to be met from the naval appropriation and was not to exceed $11,000.[57] The most significant features of this measure were the provision reducing the limit on repairs to wooden ships from thirty per cent to twenty per cent and the provision that the vessels be constructed of American materials. The importance of the act was threefold, first, it furnished employment for hundreds of men; second, it marked the resumption of the old policy of the United States of providing the best weapons of defense, and third, it gave commerce the assurance of protection and American citizens the promise of the safeguarding of their lives and interests in foreign lands.[58]

In 1883 the second Naval Advisory Board recommended the construction of seven additional unarmored cruisers and two

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57. United States Statutes, vol. 22, 47th Congress, 2nd. session, pp. 472-481.
58. Long, op. cit., p. 24.

gunboats of 750 tons displacement each.[59] In his report of December 1, 1883 Chandler supported these recommendations and in addition urged the construction of one steel ram, one cruising torpedo-boat and two harbor torpedo-boats.[60] However, the policy of the administration was not one of frenzied haste and extensive expansion, but rather a policy looking toward the gradual replacement of the obsolete wooden ships with modern steel vessels. In his report for 1883 Chandler indicated the nature of his program by stating, "The immediate object should be at moderate expense to replace our worn-out cruisers with modern constructions fitted for general service .... the reconstruction should for the present be continued on the lines already begun."[61] His program called for the construction of at least seven new vessels each year until the government had acquired a new steel navy, the accomplishment of which Chandler estimated would require a building program over a period of ten years.[62]

The naval building program was immediately set into motion by Secretary Chandler, who, in accordance with the Act of March 3, published on May 2, 1883 the advertisements inviting proposals for construction which were to be opened on Monday, July 2.[63] On July 3 all the contracts were awarded to John Roach, who was required to offer bonds of $500,000,

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59. Report of Secretary of Navy Chandler, 1883, 48th Congress, 1st session, p. 6.
60. Ibid., p. 7.
61. Ibid., pp. 7-8.
62. Ibid., pp. 8-9.
63. Ibid., p. 4.

$300,000, $300,000, and $150,000 for completion of the "Chicago," "Boston," "Atlanta," and "Dolphin" respectively. The total contract price, exclusive of masts, spars, boats and rigging was $2,440,000, or $774,000 less than the estimates of the Naval Advisory Board.[64]

The new program of naval building met with many serious difficulties which impeded its progress. One of those problems concerned the weakness in the organization of the Navy Department which was pointed out by Secretary of Navy Chandler. By 1883 the Department of the Navy was dominated to a great extent by naval men, while the only civilian aides to the Secretary were occupying clerical offices.[65] Chandler was of the opinion that both the Navy and the War Departments should have at least an Assistant Secretary and a solicitor drawn from the civilian group.[66] He voiced this sentiment in his annual report of 1884 by stating:

> A laborious experience of two years and a half forces irresistibly the conclusion that an Assistant Secretary is indispensable for the proper transaction of the business of the Department. If such aid is not provided, Congress should give authority for the appointment of the chiefs of the bureaus from Civilians.[67]

The Navy Department contained other serious defects, but although Chandler recognized the evils, he did nothing to remedy the defective organization of his Department.[68]

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64. Ibid., pp. 4-5.
65. Ibid., p. 15.
66. Ibid.
67. Report of Secretary of Navy Chandler, 1884, 48th Congress, 2nd session, p. 26.
68. George F. Howe, "Chester A. Arthur," p. 239.

A similar disordered condition within the country's navy-yards constituted another serious handicap to naval progress. To investigate the problem and to recommend necessary reforms Chandler appointed a Navy-Yard Commission consisting of Commodore S. B. Luce, Chief Engineer Charles H. Loring and A. B. Mullett, the civilian member.[69] This Commission made several preliminary proposals on June 6, 1881 and October 11, 1883, but did not submit a complete report until December first of that year.[70] The primary need was for a reorganization and concentration within the navy-yards, and to achieve this end it was suggested that there be but one shop in each yard for the performance of any one class of work and that each of the several articles that formed the part of the outfit of a ship should be made in one yard only.[71] The Commission suggested that the New York, Norfolk and Mare Island Yards be kept in use as working yards, that the Washington Navy-Yard be retained for the manufacturing of standard articles but not as a shipyard for the repair of vessels, and that the New London and Pensacola Navy-Yards be closed.[72] Secretary Chandler felt that the ideas of the Commission were too large to be realized in a short time, but that it was feasible immediately to close such repair shops as were not needed and to check extravagance at those which were still used.[73] He recognized the fact that

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69. Report of Secretary of Navy Chandler, 1883, 48th Congress, 1st session, p. 15.
70. Ibid.
71. Ibid.
72. Ibid., pp. 15-17.
73. Ibid., p. 17.

political considerations constituted the greatest evil, and he stated that until the government workshops were managed on business-like principles the construction of vessels would have to be intrusted to private concerns.[74]

In 1884, after further consideration of the problem, the Navy-Yard Commission made further recommendations designed to eliminate political considerations, to diminish the large number of persons, to abolish all the delay due to excess routine and formality, and to coordinate the work and fix responsibility.[75] The principal recommendation called for the appointment by the president with the consent of the Senate of three officers known as Supervising Naval Constructors. These three officers, under the supervision of the chief of the Bureau of Naval Construction, to whom they would be held to a rigid accountability, were to have charge of all work at the three naval workshops, while the latter in turn would be accountable for all their doings.[76] During Chandler's administration little was accomplished toward the elimination of the apparent defects, although Chandler did close the navy yards which the Commission had recommended.

Another serious handicap to naval construction was the lack of facilities within the United States for the manufacture of armor plate and armament for the new cruisers. When the

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74. Ibid., p. 18 (Complete report in Senate Executive Document No. 55, 48th Congress, 1st session).
75. Report of Secretary of Navy Chandler, 1884, 48th Congress, 2nd session, p. 16.
76. Ibid., pp. 17-19.

United States decided to complete an old monitor or two long lying on the stocks her humiliation was brought out by the fact that she had to depend on foreign powers and possible future enemies for the necessary materials.[77] As one writer has put it, "to do this Rome went to Carthage to buy shields for its legions -- we bought our armor-plate in a foreign market!"[78] The same procedure was followed in regard to the new cruisers authorized by Congress. The forgings for the eight-inch guns were ordered in England, part from Messrs. Charles Cammell and Co., and part from Sir Joseph Whitworth and Co.[79] Great delay was experienced in getting the forgings, but the delay as well as the cost would have been greater in the United States, since there were no plants equipped to manufacture them. A similar situation prevailed relative to the required armor which was contracted for with the English firms of John Brown and Co. and Messrs. Charles Cammell and Co.[80] The deplorable lack of adequate facilities for manufacture was well stated by Secretary Chandler in his report for 1884 wherein he said:

> If the armor is to be procured within a reasonable period, it must be obtained abroad ...since no domestic manufacturers are now prepared to make it, and the amount required for this particular object would not justify them in making the necessary outlay for a plant, even if the Government could wait.[81]

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77. Spears, op. cit., p. 531.
78. Ibid.
79. Report of Secretary of Navy Chandler, 1884, 48th Congress, 2nd session, p. 9.
80. Ibid.
81. Ibid., p. 10.

As in the case of the navy yards a board was chosen to investigate the problem of supplying from American sources the modern ordnance for the new vessels. This body, known as the Gun Foundry Board, was appointed by President Arthur on April 2, 1883.[82] The members of the Commission conducted a most thorough and systematic investigation, visiting European countries to observe foreign methods of producing heavy guns and including in their report to Congress on February 18, 1884 complete information as to the conditions of artillery and sources of supply in the United States, France, England, Germany and Russia.[83] There were four principal recommendations offered, namely: (1) that gun materials should be purchased from United States steel manufacturers, (2) that two gun factories under the control of the government should be established, one for the army at Watervliet arsenal, West Troy, New York, and one for the navy at Washington Navy-Yard, (3) that inducements be offered to attract private industries of the country to aid the government in providing ordnance, (4) that a sum of money be fixed as a yearly appropriation for this purpose.[84] Three years was the length of time estimated as necessary to construct adequate manufacturing plants and assemble the necessary tools in the United States, while $1,800,000 was thought to be sufficient for the building of the two government assembly plants.[85]

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82. Ibid., p. 30.
83. Ibid.
84. Ibid., pp. 30-31 (Complete report in Chandler's report for 1884, pp. 255-382. Also in House Executive Documents, No. 27, 48th Congress, 1st session).
85. Ibid.

Congress seemed very favorable to the report and while taking no final legislative action caused the board to reconvene on April 27, 1884 to draft a plan of action.[86] On may 15 a circular letter was addressed to the steel manufacturers of the country which read, "the object of now addressing you is to request from you such proposals as may guide the Board in its recommendations as to the annual appropriations to be made."[87] From the responses to this letter the Board made a supplementary report on December 20, 1884 which stated that there were steel manufacturers prepared to build plants and bid for contracts to supply material for the heaviest guns if they could be assured of orders.[88] Thus, it rested with Congress to stimulate domestic manufacturers by authorizing new vessels and making attractive contracts available to American corporations. If assured of such contracts, the American companies were willing to expand and modernize their plants so that they could manufacture the necessary materials. Arthur steadfastly urged Congress to grasp the opportunity, but the House of Representatives did nothing and even disregarded Arthur's special message of March 26, 1884.[89] With the reassembling of Congress in December of the same year Arthur asked the authorization of ten new vessels, and on the last day of his administration he signed a bill which appropriated $1,895,000 for two cruisers and two gunboats of "the best and most modern design, having the highest attainable speed."[90]

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86. Howe, op. cit., p. 234.
87. Ibid.
88. Ibid.
89. Ibid., p. 238.
90. Ibid.

For the reasons already mentioned construction of the new vessels was necessarily slow, and more trouble was encountered when the designs of the four cruisers were subjected to vehement criticisms which disturbed the public confidence in the proposed vessels.[91] These criticisms were quelled by the report of the Senate Committee on Naval Affairs on February 12, 1884. This committee had conducted a lengthy survey and secured the views of sixteen competent men in naval construction.[92] After completing this thorough study of the matter the committee concluded that "nothing has appeared to show that the confidence of the Navy Department and of the Advisory Board in the success of these vessels is misplaced.[93] With public confidence restored, work on the new vessels continued unhampered, and by the end of the Arthur administration the "Dolphin" had been completed, the "Atlanta" and "Boston" were nearing completion and the "Chicago" was seven-tenths completed.[94]

Other notable achievements in naval affairs during the administration of President Arthur included the Office of Naval Intelligence within the Navy Department and the proposed plans to render the Bureau of Naval Construction more efficient.[95] On the whole the work of William Chandler was creditable, but it could have been better, his chief

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91. Report of Secretary of Navy Chandler, 1884, 48th Congress, 2nd session, p. 4.
92. Senate Report No. 161, 48th Congress, 1st session
93. Ibid.
94. Report of Secretary of Navy Chandler, 1884, 48th Congress, 2nd session, p. 3.
95. Howe, op. cit., p. 238.

deficiency was lack of care to build the best type of vessels in the most efficient way. While he recognized the weakness and inefficiency of his Department, Chandler did little in a constructive way to better conditions. The credit for refraining from waste and extravagance in naval spending belongs to the Democratic House of Represenatives which proceeded cautiously in order to avoid undue expense.[96] The primary significance of Arthur's administration, in addition to the tangible results, was the sweeping aside of the barriers of indifference and ignorance.[97] Now that a start had been made the entire public, as well as the Congress, was interested in continuing a program to enlarge and modernize the navy.

III

On March 4, 1885 the Republican administration of President Arthur came to an end and the responsibilities of the presidency devolved on Grover Cleveland, the first Democratic president since 1860. Like his predecessor, Cleveland took a keen interest in developing the country's naval strength and ardently advocated the continuation of a naval-building program. In his first annual message on December 8, 1885 Cleveland made known his position in the following words:

> All must admit the importance of an effective navy to a nation like ours. Yet we have not a single vessel of war that could keep the seas against a first-class vessel of any important power. Such a condition ought not longer to continue. The nation that cannot resist aggression is constantly opposed to it.[98]

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96. Ibid., p. 239.
97. Ibid, pp. 239-240.
98. Richardson, op. cit., p. 351

Throughout his administration Cleveland remained a staunch advocate of a stronger navy and likewise gave full support to Secretary of Navy Whitney's proposed changes within the Navy Department.

One of the first problems confronting the new administration regarding naval affairs was in connection with the construction of the four cruisers begun during the Arthur administration. The "Dolphin," which had been completed, was given its initial trial by order of Secretary Whitney on March 18, 1885.[99] During the trial the ship failed to develop and maintain the 2300 horse-power stipulated by the contract which stated, "in case of the failure of the development of this power, the vessel shall be accepted if it can be shown to the satisfaction of the Naval Advisory Board and the Secretary of the Navy that this failure was due neither to defective workmanship nor material.[100] Inasmuch as the Board was of the opinion that the "Dolphin's" failure was not due to defective workmanship nor material, Whitney requested Roach for another trial but received no reply. Whitney then decided on an examination of the vessel by Commodore Belknap, Commodore Evans, and Herman Winter, a marine engineer.[101] The vessel failed in three attempts to reach the limit of power required by the contract, so that the question of its acceptance was submitted

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99. Report of Secretary of Navy Whitney, 1885, House Executive Documents, 49th Congress, 1st session, p.XIX.
100. Ibid., p. XX.
101. Ibid.

to Attorney General Garland who declared the contractor responsible both for the speed and the strength of the ship, and he also discovered a flaw which rendered the contract void. As a result of this decision, as well as the financial difficulties of Roach, the government took over the work of completing the vessels.[102]

Much of the blame for these mistakes is attributed to Secretary Chandler, although unpreparedness made blunders unavoidable. One writer on the subject has called Chandler a hack politician, while "the shipbuilder he chose was a single illiterate, elderly, infirm ironmaster."[103] Roach and Chandler were close friends, the latter having received financial help from the shipbuilder as an aid to his political aspirations,[104] so that it was only natural that the awarding of the contracts to Roach was regarded as a political favor on the part of Chandler. But whatever the source of the trouble, the bungling created much delay and necessitated a new start on the naval program by the Cleveland administration.

Undoubtedly the greatest difficulty to be met was the poor organization of the Navy Department which created confusion, extravagance and waste. The Department had undergone numerous changes since its inception. During the Revolutionary War there had been no department, but the navy

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102. Ibid., p. XXII.
103. Allan Nevins, "Grover Cleveland; A Study in Courage," p. 217.
104. Ibid., p. 218.

was managed by committees appointed by Congress.[105] After the country was organized under the constitution the navy was under the control of the War Department, where it remained until the creation of the Navy Department by an Act of Congress in 1798.[106] Down to 1815 the Secretary of the Navy had not always been experienced in naval matters, and it was to meet this difficulty that a Board of Naval Commissioners was formed to act under the Secretary of the Navy.[107] This system of administration continued in effect with but slight modifications until 1842, when the management of the navy was placed in the hands of five bureaus, which were increased in 1862 by three, and these eight bureaus were in charge of naval affairs when Secretary Whitney came into office in 1885.[108] His department consisted of a Bureau of Navigation, a Bureau of Ordnance, a Bureau of Equipment, a Bureau of Navy Yards, a Bureau of Medicines, a Bureau of Provisions, a Bureau of Steam Engineering, and a Bureau of Construction. In order to get men with naval experience into the Department each of these bureaus was under the direction of an officer with the rank of commodore, who was appointed by the president with the consent of the Senate.[109]

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105. Edgar S. Ma clay, "A History of the United States Navy from 1775 to 1901," volume 3, p. 29.
106. Ibid.
107. Ibid.
108. Ibid.
109. Ibid.

A very obvious and disconcerting deficiency in this organization lay in the division into two hostile camps, one consisting of the naval officers or the "line," and the other of the "staff" or civil branch. The object of each was to influence the legislative and executive action in such a way as to gain an advantage over the other.[110] Such petty jealousies created discord and served to hamper all the work of the Navy Department. Other evils resulting from the excessive number of bureaus were the confusion, the lack of responsibility and the wastefulness within the Navy Department. All purchases were supposed to be by contract, but this, like many other regulations, was subject to flagrant abuse. In the fiscal year ending June 30, 1885 open purchases amounted to $841,285.84, while purchases by dontracts amounted to a little over $1,000,000.[111] Furthermore, there was no concentration of purchases within one department, nor any system whereby unnecessary expenses could be avoided. In the same fiscal year $138,000 was spent by seven different bureaus, each acting independently, for coal bought at 166 open purchases; there were 299 different purchases of stationery by eight bureaus, 499 separate open purchases by six bureaus for lumber and hardware amounting to $121,315.66, while seven bureaus spent $46,000 for oils and paints in 269 separate purchases and eight bureaus were supplying stationery to ships.[112] As a result of the

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110. Nation, December 17, 1895, p. 503.
111. Report of Secretary of Navy Whitney, 1885, House Executive Documents, 49th Congress, 1st session, p. XXX.
112. Ibid.

inefficient and slip-shod methods prevalent in the Department much money had been wasted, inasmuch as over $75,000,000 had been spent since July 1, 1868 and the navy had practically nothing to show for these vast expenditures.[113] More money had been spent on repairs of obsolete ships than new cruisers would have cost.[114] Generally the repairs were farmed out to Republican contractors who gave lavishly to the campaign funds, just before an election the navy-yards would become very busy, and the workers would be marched to the polls to vote the Republican ticket.[115] There also existed much friction in the Navy Department, since each of the eight bureau heads acted as if his department were the paramount branch. Moreover, there was no Assistant Secretary to aid the Secretary, so that "when the Secretary went out to lunch, the Department was headless."[116]

Such was the sad state of affairs when William C. Whitney became Secretary of the Navy in 1885. Whitney, the son of Brigadier-General James S. Whitney, was a member of the legal profession, having graduated from Yale and studied at Harvard Law School.[117] He had been admitted to the bar in 1865 and he became an immediate success in both law and politics in New York State.[118] Perhaps his greatest achievement previous to his appointment as Secretary of the Navy was his successful reorganization of the office of Corporation

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113. Ibid., p. XXXIII.
114. Ibid.
115. Nevins, op. cit., p. 220.
116. Ibid., p. 221.
117. Malone, op. cit., vol. 20, p. 165.
118. Ibid., p. 166.

Council in New York City.[119] Whitney was a man of action, and he wasted no time in getting to the source of his department's weaknesses and suggesting reforms. In the first place he made a complete inventory of the stock on hand in all the navy-yards, the first inventory of this kind made within seven years, and he discovered that the stock on hand did not agree with the amounts shown on the books because of the diffusion in departmental purchases and the lack of a systematic method of bookkeeping.[120] Whitney not only condemned the antiquated departmental system, but proposed a new organization to consist of a Secretary, an Assistant Secretary, and one person at the head of each of the three natural divisions of the functions of the department, Finance, Construction and Personnel. The business of each of these three bureaus was to be subdivided according to the subject matter with which each dealt.[121] Because of his own lack of knowledge of naval affairs, Whitney also suggested a board of experts to serve as advisors to the Secretary, but this proposal met with strong objection because of the fear that such a board would do away with the individual responsibility of each subordinate to his chief, and of the head of the department to the public.[122]

These proposals by the Secretary met with the hearty

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119. Ibid.
120. Report of Secretary of Navy Whitney, 1885, House Executive Documents, 49th Congress, 1st session, p. XL.
121. Ibid.
122. Nation, February 25, 1886, p. 164.

approval of President Cleveland who recommended that Congress take favorable action on them, by stating:

> I deem it my duty to especially direct the attention of Congress to the close of the report of the Secretary of the Navy, in which the humiliating weakness of the present organization of his Department is exhibited.....before we proceed further in the restoration of a Navy we need a thoroughly reorganized Navy Department..... every attempt to revive our Navy has thus far for the most part been misdirected, and all our efforts have been little better than blind gropings and expensive, aimless follies.....if we desire to build ships for present usefulness instead of naval reminders of the days that are past, we must have a Department organized for the work....systematized so that all effort shall unite and lead in one direction, and fully imbued with the conviction that war vessels, though new, are useless unless they combine all that the ingenuity of man has up to this day brought forth relating to their construction.[123]

In spite of this strong recommendation and the fact that Whitney's proposals passed the Naval Committee of the House with but two dissenting votes, Congress failed to adopt any legislative measures incorporating these recommendations.[124]

Confronted with the failure of his proposals in Congress, Whitney, nevertheless, proceeded to make many needed reforms, even though he lacked the power to decrease the number of bureaus. Limited to a redistribution of functions among the existing bureaus, Whitney consolidated in one bureau the purchases, care and custody of all stores, and inaugurated a system of bookkeeping designed to correct the needless confusion in the department's accounts.[125] He also appointed a

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123. Richardson, op. cit., p. 351.
124. Report of Secretary of Navy Whitney, 1886, House Executive Documents, 49th Congress, 2nd session, p. 3.
125. Ibid., pp. 3-4.

board of three members to conduct an inventory at the various navy-yards to determine the quantity and condition of naval stores and to dispose of the excess stores not usable. This inventory disclosed much unnecessary waste, for example there were 46,566 augurs and bits at eight navy-yards, of which 25,247 had been lying for several years at closed yards where no work had been or was likely to be done.[126] All such excess stores were disposed of and similar extravagances in the future were largely prevented by Whitney's concentration of purchases and his business-like methods of conducting the department's affairs. Unlike Secretary Chandler, Whitney displayed great zeal and initiative in ferreting out the sources of inefficiency and in taking steps to remedy the abuses. He did not wait for congressional action which might never be forthcoming, but borrowed some features of the British organization, and by adapting them to his own department succeeded in curtailing most of the wasteful expenditures of the Navy Department.[127] Responsibility was centralized, and for the first time in many years the department was conducted in a business-like manner.

Meanwhile, the campaign for a larger and more efficient navy continued, and in this matter Congress was not lax, as it passed appropriations for this purpose each year of the Cleveland administration. The Act of August 3, 1886, provided: (1) the construction of two sea-going double-

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126. Ibid.
127. Nevins, op. cit., p. 221.

bottomed armored vessels of 6,000 tons displacement and a minimum speed of sixteen knots, (2) the construction of one protected double-bottomed cruiser of 3,500-5000 tons displacement having the highest practicable speed and costing not more than $1,500,000, (3) the construction of one first-class torpedo-boat to cost not to exceed $100,000, (4) the construction of one dynamite-gun cruiser, not to exceed $350,000, to be built by the Pneumatic Dynamite-Gun Company of New York, (5) the appropriation of $1,000,000 for the armament of the vessels authorized in the Act of March 3, 1885, (6) all vessels to be built of domestic steel.[128] In regard to the awarding of the contracts and construction in accordance therewith the same provisions prevailed as in the preceding Act.[129]

A second Act, passed on March 3, 1887, contained the following terms: (1) it authorized construction by contract of two steel gunboats, each having a displacement of about 1,700 tons and costing not more than $550,000, (2) it also made authorization for the construction of two steel cruisers, the cost of both, exclusive of armament, not to exceed $3,000,000, (3) a sum of $1,500,000 was appropriated for the construction of these vessels, (4) the contracts were to guarantee a speed of nineteen knots, for every quarter knot of speed attained above the guaranteed speed the contractor would receive a premium of $50,000, while for

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128. United States Statutes, vol. 24, 49th Congress, 1st session, pp. 208-217.
129. Ibid.

every quarter knot the vessel failed of reaching the guaranteed speed $50,000 was to be deducted from the contract price, (5) additional appropriations included $1,000,000 for floating batteries or rams, or other naval structures, for coast and harbor defense, $50,000 for the purchase of, and the trial and testing of torpedoes and appliances using explosives to be operated from naval vessels, $2,420,000 for the completion of five double-turreted monitors and the vessels authorized by the Acts of March 3, 1885 and August 3, 1886, $2,128,362 for the armament of all the vessels previously authorized, and $4,000,000 for the procuring and testing of armor and gun steel of domestic manufacture.[130]

Congress passed another naval appropriation measure on September 7, 1888 which provided, (1) the construction of two steel cruisers of 3,000 tons displacement at a cost, exclusive of armament and premiums, of not more than $1,100,000 each, (2) the construction of one steel cruiser of about 5,300 tons displacement to cost not more than $1,800,000, (3) the construction of one armored cruiser of 7,500 tons displacement at a cost of not more than $3,500,000, (4) the construction of three gunboats to be of steel or having steel frames, with a displacement of 2,000 tons, costing not more than $700,000, (5) an appropriation of $2,000,000 for the armament of the vessels previously authorized and an appropriation of $260,000 for the

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130. United States Statutes, vol. 24, 49th Congress, 2nd session, pp. 581-594.

construction of one steel practice vessel of 800 tons displacement for the use of the Naval Academy. The contracts were to guarantee a speed of 19 knots per hour for the two steel cruisers of 3,000 tons displacement, and a speed of twenty knots for the steel cruiser of 5,300 tons displacement, while the same provisions as to premiums and penalties as in the previous Act were enacted. This measure also required the use of domestic steel in the construction of the vessels.[131]

The last naval appropriation measure of Cleveland's administration was approved on March 2, 1889 and provided: (1) the construction of one armored steel cruising monitor of not less than 3,000 tons displacement, at a cost not exceeding $1,500,000. The contract for this vessels was to guarantee 7,500 horsepower and a maximum speed of at least seventeen knots, (2) the construction of an additional dynamite cruiser of the Vesuvius type to be built by the Pneumatic Dynamite Gun Company which was to guarantee a speed of twenty knots an hour with a penalty deduction of $10,000 for every quarter knot the vessel failed of reaching the further speed of twenty-one knots per hour, (3) the construction of two steel cruisers with a displacement of 800 to 1,200 tons, to cost in the aggregate not more than $700,000, (4) the construction of one ram for harbor defense, (5) an appropriation of $56,000 to enable the Secretary of

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131. United States Statutes, vol. 25, 50th Congress, 1st session, pp. 458-473.

the Navy to test, and if found satisfactory, to purchase three or more rapid-fire breach-loading rifled guns, (6) further appropriations of $4,055,000 for the completion of the hull and machinery and for premiums of ships previously authorized, of $2,500,000 for the armament of all vessels authorized since 1885, and of $625,000 to complete the construction and equipment of the ordnance shops, offices and gun plant at the Washington Navy-Yard.[132]

Whitney proceeded slowly in the matter of awarding the contracts, as he wished to ascertain the facilities of domestic manufacturers. He was reassured by the investigations of the Board on Fortifications together with the two special committees of Congress which were substantially agreed that American concerns were capable of producing materials of the required quality.[133] Whitney himself conducted an examination into the prices and determined that responsible ship-builders were willing to contract for the construction of cruisers having characteristics as high as those attained abroad at prices within twenty-five per cent of the foreign price.[134] In preparing the contracts Whitney included the premium and penalty provisions established by Congress, and also included all the armor required in one contract and all the material necessary for guns in one

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132. United States Statutes, vol. 25, 50 Congress, 2nd session, pp. 809-825.
133. Report of Secretary of Navy Whitney, 1887, House Executive Documents, 50th Congress, 1st session, p. IV.
134. Report of Secretary of Navy Whitney, 1886, House Executive Documents, 49th Congress, 2nd session, p. 8.

contract, thereby offering an inducement to steel manufacturers to undertake the necessary expenditure to prepare for production.[135] In March, 1887 the bids were opened, and the contract for the production of armor and gun steel was awarded to the Bethlehem Steel Corporation.[136]

It was Whitney's intention to encourage the American steel manufacturers and make America independent of foreign countries in the matter of materials for ship construction. He discontinued all purchases of armor and gun steel from abroad, and included as one of the conditions of the contract the construction of an efficient gun plant.[137] While this policy necessitated considerable delay in the construction program, yet it was on the whole a wise policy, as it gave impetus to the development of the gigantic steel industry in America and freed the country from reliance on foreign production. Whitney was building for the future rather than for rapid construction progress during his own administration, but considerable work was completed during his tenure of office. The four vessels begun by John Roach were completed by the government and placed in commission, the first dynamite cruiser was ready for trial, four vessels were launched, while ten were in the process of building.[138]

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135. Ibid., pp. 9-10.
136. Report of Secretary of Navy Whitney, 1887, House Executive Documents, 50th Congress, 1st session, p. IV.
137. Ibid.
138. Report of Secretary of Navy Whitney, House Executive Documents, 50th Congress, 3rd session, p. IV.

Equal in importance to the establishment of American plants for the manufacture of materials were the reforms effected in the administration of the Navy Department. Not only were purchases consolidated within the Bureau of Provisions and Clothing, but responsibility was fixed and efficiency replaced chaos. All requisitions for goods had to be made on the Paymaster-General who became responsible for the purchases, while his subordinates at the yards and stations transacted the business and kept the accounts.[139] The beneficial results of Whitney's wise administration became apparent soon after the introduction of his reforms. The expenses involved in the handling and caring for the stores, including salaries of clerks, were reduced by more than twenty-five per cent, while the ordinary expenses of the department were reduced by more than twenty per cent.[140] Despite the additional expenses involved in the increase of the navy, less was spent in the period from 1886-1888 than during the period from 1882-1884, so that Whitney could truthfully say that the savings of the department were paying for the new navy.[141]

Another achievement of the Whitney administration which requires mention was the creation of a naval reserve which came as a result of much public support, including resolutions passed by committees of the Chamber of Commerce in both New

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139. Report of Secretary of Navy Whitney, 1887, House Executive Documents, 50th Congress, 1st session, p. XI.
140. Report of Secretary of Navy Whitney, 1888, House Executive Documents, 50th Congress, 2nd session, pp. 12-14.
141. Ibid.

York and San Francisco urging the organization of a naval reserve.[142] With characteristic thoroughness and efficiency Whitney investigated similar organizations in foreign countries before recommending a body which he said should be constituted on the same lines as the militia of the navy and should ".... rest upon the foundation of local interest, contemplate employment and rapid mobilization of steamers enrolled on an auxiliary navy list, and be calculated to produce the best results upon a comparatively small national expenditure."[143]

In addition to all these reforms credited to Whitney himself, his administration witnessed the culmination of a plan inaugurated by Chandler, namely the establishment of a naval war college at Newport under the presidency of Commander Luce. A recent writer on the history of the navy sums up the importance of this institution as follows:

> It has served not only to educate senior officers in the higher branches of their profession, but also to create among them that degree of mutual understanding which is so essential to coordinate action in battle or under other great difficulties of operating large numbers of ships jointly at sea.[144]

Any attempt to estimate the services of William Whitney as Secretary of the Navy is difficult, as a mere enumeration of his accomplishments does not provide a complete picture of his achievements. His work was of inestimable value not only

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142. Report of Secretary of Navy Whitney, 1887, House Executive Documents, 50th Congress, 1st session, p. XVI.
143. Ibid.
144. Knox, op. cit., p. 325.

to the Navy Department of his own time, but to the progress and welfare of the future navy of the United States.

IV

The Republican party, under the leadership of President Harrison, returned to control of national affairs in 1889, but despite this change in administration there was no disposition to discontinue the naval building program which had been started. Two important factors strongly favored the continuation of naval expansion, namely the appointment of James G. Blaine as Secretary of State and the presence of a large surplus in the national treasury.

Blaine was the advocate of an aggressive and "spirited foreign policy" which predicated a strong navy, and his dominant position in the cabinet served to make his views the most influential in the administration. The nature of his policy was shown by his attitude regarding American interests in the Pacific; he not only approved the presence of American marines in Hawaii and urged the president to "take" it, but he assumed a most aggressive policy in reference to American interests in Samoa.[145] To quote his own words on this matter:

> Nor can the government of the United States forget what we are satisfied the other treaty powers will cordially recognize -- that our interest in the Pacific is developing rapidly, and that the certainty of an early opening of an Isthmian transit from the Atlantic to the Pacific under American protection must create changes in which no power can be directly or more interested than the United States.[146]

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145. David S. Muzzey, "James G. Blaine," p. 394.
146. Ibid., p. 399.

Blaine persisted in his new type of diplomacy, even to the extent of abandoning the traditional American policy of avoiding "entangling alliances," by signing a tripartate agreement relative to Samoa, in conjunction with Germany and Great Britain.[147] This was the first political pact entered into with European powers since the termination of the Franco-American treaty of 1778, and it marked "....the small beginning, the entering wedge of imperialism."[148] The chief importance of Blain's influence lay in his belief that the rounding out of our continental area would be followed by further annexations in the ocean beyond.[149] Such a policy necessitated a large and efficient navy and proved important in encouraging the development of the American fleet.

The second favorable condition for naval progress was the existence of a large surplus which had increased instead of diminished, so that when Harrison took office the treasury had a surplus of $183,827,190.29.[150] Harrison realized that such a large surplus constituted a serious evil and he brought this out in his inaugural address in which he stated:

> While a Treasury surplus is not the greatest evil, it is a serious evil....There is nothing in the condition of our country or of our people to suggest that anything presently necessary to the public prosperity, sancity, or honor should be unduly postponed.[151]

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147. Ibid., p. 400.
148. Ibid.
149. Samuel F. Bemis, "The American Secretaries of State and Their Diplomacy," vol. VIII, p. 115.
150. Richardson, op. cit., vol. IX, p. 195.
151. Ibid., p. 11.

With the naval program now well under way, the large surplus worked for the continuation of it as a public necessity.

The man chosen by President Harrison to guide the destinies of the Navy Department was Benjamin F. Tracy of New York, who had gained considerable prominence in the legal profession. He had been admitted to the bar in 1851, and while elected District Attorney of Tioga County in 1853 as a Whig, he organized the Republican party in the county in 1854 and gained a place in the state legislature as a Republican in 1862.[152] Tracy played an active part in the Civil War, organizing two regiments as well as serving as colonel of the 109th New York Volunteers, and because of gallant service he was promoted to the rank of Brigadier-General and later awarded the Congressional medal of honor.[153] In 1866 he was appointed District Attorney for the eastern district of New York by President Johnson, a position which he held until 1873 when he returned to private practice. His only other public office before his appointment as Secretary of the Navy in 1889 was as judge of the court of appeals in 1881-1882.[154]

Tracy envisaged a far different type of fleet than that contemplated by Secretary Chandler during his administration. Tracy's recommendations during his tenure urged

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152. Malone, op. cit., vol. XVIII, p. 622.
153. Ibid., p. 623.
154. Ibid.

not only an increase in the number of vessels, but also the construction of larger and more powerful ships for use in war. He voiced his sentiments in the following statements:

> To carry on even a defensive war with any hope of success we must have armored battleships. The capture or destruction of two or three dozen or two or three score of merchant vessels is not going to prevent a fleet of ironclads from shelling our cities....we must have the force to raise blockades....we must have a fleet of battleships that will beat off the enemy's fleet on its approach....Finally we must be able to direct an enemy's force from our coast by threatening his own.[155]

He was of the opinion that to stop further construction meant the abandonment of everything that had been gained, and therefore he urged the following procedure: first, the immediate creation of two fleets of battle-ships, eight vessels to be assigned to the Pacific coast and twelve to the Atlantic and the Gulf of Mexico; second, the construction of at least twenty vessels for coast and harbor defense; third, the completion of these vessels at the earliest possible moment, with eight of them to be authorized at the coming session of Congress.[156] According to Tracy's plans the future navy was to consist of twenty battle-ships, twenty coast-defense ships and sixty cruisers.[157] He condemned any large increase in vessels of the gun-boat class, saying, "It is chasing the shadow and losing the substance. Such vessels add nothing to the real strength of a naval force."[158] In addition to

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155. Report of Secretary of Navy Tracy, 1889, House Executive Documents, 51st Congress, 1st session, pp. 4-5.
156. Ibid., p. 11.
157. Ibid., p. 12.
158. Ibid., p. 13.

vessels of the battle-ship class the greatest need of the country's navy according to Tracy was the construction of torpedo-boats of which the United States had only one in construction in contrast to the 207 possessed by England, the 191 in France, and the 138 in Russia.[159] In his reports for 1890 and 1891 Tracy renewed his requests for the addition of battle-ships to the fleet of the United States, saying with reference to the need for adequate defense of our numerous ocean harbors, "Both battle-ships and harbor defenders are still far too few in number to meet the urgent necessities of the situation."[160]

Tracy's views represented a radical departure from the earlier recommendations of Chandler and Whitney, but they were in keeping with the trend in foreign countries toward the construction of large battle-ships. Congress was not ready to embark on such a course entirely, but did adopt Tracy's views to a certain degree. The first legislative act during this administration was passed on June 30, 1890, and its chief provisions were as follows: (1) the authorization of "three sea-going coast-line battle-ships designed to carry the heaviest armor and the most powerful ordnance upon a displacement of about 8,500 tons, with a coal endurance of about 5,000 knots on the total coal capacity at the most economical rate of speed, and to have the highest

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159. Ibid.
160. Report of Secretary of Navy Tracy, 1890, House Executive Documents, 51st Congress, 2nd session, p. 37.

practicable rate of speed for vessels of their class," at a cost of not more than $4,000,000 each; (2) the recommended construction of one protected cruiser having 7,300 tons displacement, a maximum speed of at least 21 knots, to cost not more than $2,750,000; (3) the construction of one swift torpedo cruiser with a displacement of 350 tons and a maximum speed of at least twenty-three knots, to cost not more than $350,000, and the construction of one torpedo boat, whose cost was not to exceed $125,000; (4) an appropriation of $2,500,000 for armament of all vessels authorized up to date of the present measure; (5) an appropriation of $145,000 for the completion of the gun factory at the Navy-Yard, Washington, D. C.; (6) an appropriation of $5,475,000 for the construction of vessels previously authorized and for the payment of premiums due on them.[161] It was also suggested that one of the vessels should be constructed on the Pacific coast and one on the coast of the Gulf of Mexico, providing the contract prices were not unnecessarily high. Premiums for increased speed and penalties for deficient speed were to be included or omitted at the discretion of the Secretary of the Navy.[162]

On March 2, 1891, Congress passed another naval appropriation measure which provided for: (1) the construction of one protected cruiser of 7,300 tons displacement having

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161. United States Statutes, vol. 26, 51st Congress, 1st session, pp. 189-206.
162. Ibid.

a maximum speed of not less than twenty-one knots, to cost not more than $2,750,000; (2) the repeal of the part of the Act of March 2, 1889 which authorized the construction of one armored steel cruising monitor of 3,000 tons displacement; (3) an appropriation of $4,000,000 for armament and armor of domestic manufacture for vessels previously authorized; (4) an appropriation of $400,000 for anchors, chain cables, galleys and fixtures, sails, awning and other equipment for certain new vessels; (5) an appropriation of $12,107,000 for completion of new vessels and for premiums.[163]

The third naval appropriation act of Harrison's administration was passed on July 19, 1892 and contained the following provisions: (1) an authorization for the construction of one armored cruiser of 8,000 tons displacement, similar in type to the "New York," to cost not exceeding $3,500,000. The contract was to guarantee a speed of twenty knots per hour, with a premium of $50,000 for every quarter knot of speed above the guaranteed speed and a deduction of $50,000 for every quarter knot the vessel failed of reaching the guaranteed speed; (2) it also provided for the construction of one sea-going coast-line battle-ship, designed to carry the heaviest armor and most powerful ordnance, having a displacement of 9,000 tons and the highest practicable speed for vessels of its class, to cost not more than $4,000,000. Premiums and penalties were left to the discretion of the Secretary of the Navy; (3) an appropriation

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163. United States Statutes, vol. 26, 51st Congress, 2nd session, pp. 799-815.

of $2,000,000 for the armor and armament of certain vessels; (4) an appropriation of $400,000 for the completion of the equipment of the new vessels.[164]

The final naval measure of Harrison's administration, passed on March 3, 1893, made provisions for the increase of the navy as follows: (1) the construction of three protected gunboats having a displacement of 1,200 tons, to cost not more than $400,000 each. The Secretary of the Navy was not to receive or consider bids from any party not provided with a plant suitable to do the work, and, if no reasonable contract could be made, the work was to be done at a navy-yard; (2) "all balances of appropriations on hand July 1, 1893, to the credit of armor and armament of vessels heretofore authorized, shall be available toward the armor and armament of any of the vessels heretofore authorized as well as for the armor and armament of vessels authorized by this act... Provided, always, that such armor and armament shall be of domestic manufacture"; (3) the appropriation of $6,875,800 for hulls and machinery, and the appropriation of $250,000 for the completion of the equipment of vessels previously authorized.[165]

President Harrison proved to be a staunch champion of the navy, as he consistently supported the program for naval expansion and improvement. A few excerpts from his various

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164. United States Statutes, vol. 27, 52nd Congress, 1st. session, pp. 236-252.
165. United States Statutes, vol. 27, 52nd Congress, 2nd session, pp. 715-732.

speeches will serve to show the stand Harrison took on the question of naval building. In his inaugural address he spoke as follows:

> The construction of a sufficient number of modern war ships and of their necessary armament should progress as rapidly as is consistent with care and perfection in plans and workmanship. The spirit, courage, and skill of our naval officers and seamen have many times in our history given to weak ships and inefficient guns a rating greatly beyond that of the naval list. That they will again do so upon occasion I do not doubt, but they ought not, by premeditation or neglect, to be left to the risks and exigencies of an unequal combat.[166]

On December 1, 1890 Harrison delivered his Second Annual Message to Congress in which he stated:

> It is a source of congratulation that the anticipated influence of these modern vessels upon the esprit de corps of the officers and seamen has been fully realized. Confidence and pride in the ship among the crew are equivalent to a second battery. Your favorable consideration is invited to the recommendations of the Secretary.[167]

The essential viewpoints of Harrison toward the improvement of the navy were expressed in his Third Annual Message of December 9, 1891 which stated in part that:

> There should be no hesitation in promptly completing a navy of the best modern type large enough to enable this country to display its flag in all seas for the protection of its citizens and of its extending commerce. The world needs no assurance of the peaceful purposes of the United States, but we shall probably be in the future more largely a competitor in the commerce of the world, and it is essential to the dignity of this nation and to that peaceful influence which it should exercise on this hemisphere that its navy should be adequate both upon the shores of the Atlantic and of the Pacific.[168]

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166. Richardson, op. cit., vol. IX, p. 12.
167. Ibid., p. 117.
168. Ibid., pp. 200-201.

In this speech Harrison demonstrated the influence of Blaine's new foreign policy upon American thinking, as he placed emphasis upon the United States' growing interests in world commerce and world affairs in general.

Secretary Tracy, like his predecessor, payed considerable attention to means of bettering the administration of the affairs of the Navy Department. Tracy felt that to attain that end the details of the working establishment should be placed in one office and that office should be separated from the details of construction, manufacture and supply.[169] For the latter purpose Tracy organized the chiefs of the Bureaus of Yards and Docks, Ordnance, Equipment, Construction, and Steam Engineering into a board to supervise the designing, construction and equipping of new ships. He also asked that authority be given for the appointment of assistants to the chiefs of all the Bureaus.[170] Through Tracy's persistent efforts it was also provided by the Congressional Act of June 30, 1890 that naval stores were to be charged as property belonging to the navy and not to any bureau thereof.[171] The purpose of that measure was to eliminate the wastefulness and confusion of numberless open purchases by various bureaus independently of each other. But perhaps the most significant reform effected by Tracy had to do with the employment of labor at the Government

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169. Report of Secretary of Navy Tracy, 1889, House Executive Documents, 51st Congress, 1st session, p. 37.
170. Ibid., pp. 38-40.
171. Report of Secretary of Navy Tracy, 1891, House Executive Documents, 52nd Congress, 1st session, p. 47.

Navy-Yards which for years had been prostituted to the evil influence of unscrupulous politicians. Secretary Tracy first removed all foremen and selected a board of officers to administer tests as a means of selecting new men, while workmen were to be selected by a board at each navy-yard.[172] The only means of making a selection was to be the test of efficiency applied by the head of the department involved.[173] Tracy was in effect introducing the new principle of civil service into the navy-yards, and the efficiency and impartiality of the system was vouched for by the New York Civil Service Reform Association, which examined the workings of the system and testified to its value.[174] Tracy considered this reform one of the outstanding achievements of his administration and praised it by saying, "It is believed that no pretext can now be raised for a change in the working force upon a change in administration....The time has come when the navy must cease to be the football of political parties."[175]

Another evil which Tracy sought to remedy concerned the navy's personnel, both as to enlisted men and as to officers. He insisted that enlisted men should be citizens, or aliens having declared their intention of becoming American subjects, while the system of enlistment and discharge should be so regulated as to secure the retention of good men in

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172. Report of Secretary of Navy Tracy, 1892, House Executive Documents, 52nd Congress, 2nd session, p. 50.
173. Ibid.
174. Ibid., P. 51.
175. Ibid., p. 52.

the service.[176] The method of promotion of naval officers also called for revision, since the existing system kept officers in inferior positions for forty years, thus leaving them only eight additional years to pass through the highest grades before they reached the retirement age.[177] By the time an officer reached a position of responsibility he was no longer fitted for it, and he was as incapacitated for efficient service during his short period of command as he was during his protracted career of subordination.[178] Since the rate of promotion was obviously too slow, Tracy's proposed solution to the problem provided that the number of lieutenant-commanders be increased from seventy-four to one-hundred and twenty-four, while the number of lieutenants was to be diminished in like proportion.[179] Tracy sought to speed up congressional consideration of the problem by appointing on June 27, 1891 a commission of line officers to investigate the condition of stagnation in the promotion of officers and to make suggestions for reform.[180] The proposals of this commission suggested the establishment of a board of competent officers to nominate for the grades in the active list the best officers of the navy. From among those not

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176. Report of Secretary of Navy Tracy, 1889, House Executive Documents, 51st Congress, 1st session, p. 22.
177. Report of Secretary of Navy Tracy, 1890, House Executive Documents, 51st Congress, 2nd session, p. 28.
178. Ibid.
179. Ibid.
180. Report of Secretary of Navy Tracy, 1891, House Executive Documents, 52nd Congress, 1st session, p. 38.

selected a reserve list was to be formed, while those not nominated for either the active list or the reserve list were to be retired at once, thus eliminating the least capable officers. Vacancies occurring in the active list would continue to be filled by graduates from the Naval Academy, all of whom would be required to serve as ensign for three years. Finally, it was suggested that the number chosen for promotion should be twice the number eligible for promotion to the next superior rank and that final selection be based on merit; the principle of selection was to replace the undesirable method of promotion by seniority.[181] In spite of the crying need for some such revision, little action was taken and Tracy's report of 1892 contained a final plea for the consideration of the problem by a congressional commission and for the passage of congressional legislation on the matter.[182] Tracy had done his part well, but Congress was slow to cooperate.

In the encouragement of the establishment of a naval militia, however, Congress was more acquiescent and carried out Tracy's wishes to a gratifying degree. Several state legislators had already made arrangements for the creation of a naval militia, but it remained for Congress to make appropriations and provide vessels to be adopted for use by the forces within those states.[183] Congress was fairly

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181. Ibid., p. 41.
182. Report of Secretary of Navy Tracy, 1892, House Executive Documents, 52nd Congress, 2nd session, p. 42.
183. Report of Secretary of Navy Tracy, 1889, House Executive Documents, 51st Congress, 1st session, p. 25.

generous in its aid, as was indicated by the Act of March 2, 1891 which included an appropriation of $25,000,000 which was to be allotted among the several states having a naval reserve as follows: California, $8,094.43; New York, $7,461.71; Massachusetts, $5,123.93; North Carolina, $2,203,60; Rhode Island, $1,178.16; Texas, $938.17.[184] These allotments were made on the basis of the number of men in each state organization, and were not distributed directly to the states but were applied to filling requisitions for arms and equipment.[185] Tracy emphasized the need for increased appropriations, stressing the value of the reserve forces by saying, "The establishment of the naval militia must be regarded as one of the important events in the record of our naval progress during the past year."[186] Under the encouragement of Secretary Tracy the naval militia within the three-year period ending in 1892 had been developed into an efficient, well-trained and disciplined group of men, already equal in number to one-fourth of the regular service.[187]

The outstanding development of Tracy's regime in the Navy Department was the rapid progress made in the material growth of the nation's fleet, featured by the construction of the first first-class battleships. The period of

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184. Report of Secretary of Navy Tracy, 1891, House Executive Documents, 52nd Congress, 1st session, p. 45.
185. Ibid.
186. Ibid., p. 46.
187. Report of Secretary of Navy Tracy, 1892, House Executive Documents, 52nd Congress, 2nd session, p. 46.

Harrison's administration was the first marked evidence of the results of the new policy.[188] During that period the navy increased from a total of three modern steel vessels in commission in 1889 to twenty-two modern vessels in 1893, while the United States advanced from twelfth to fifth place as a naval power.[189] The "New Navy" at the conclusion of Harrison's incumbency would total forty-two vessels, built or authorized, including four first-class and two second-class battleships.[190] In commenting on this significant growth Tracy exhibited much enthusiasm when he stated:

> The progress herein noted, both in ships and ordnance, by which the United States has emerged from its condition of helplessness at sea, and by the employment of its own resources, has distanced its more experienced competitors, marks an epoch in the naval development not only of this country but of the world.[191]

Before leaving the Harrison administration it is necessary to note some of the minor achievements made by the Navy Department. Two plants for the production of armor had been erected, which after exhaustive experiments developed an armor of new composition superior to anything previously known.[192] The manufacture of the Whitehead torpedo, the most efficient known, was domesticated, while at the same time serious difficulties were overcome which made possible

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188. Davis R. Dewey, "National Problems, 1885-1897," P. 185.
189. Ibid.
190. Report of Secretary of Navy Tracy, 1892, House Executive Documents, 52nd Congress, 2nd session, p. 4.
191. Ibid., p. 7.
192. Ibid., p. 6.

the development of heavy rapid-fire guns.[193] Armor-piercing shells, which previously had been a monopoly of one or two firms in Europe, were developed in the United States, whose products were now superior to any of foreign manufacture.[194] Finally, considerable progress was made in the development of smokeless powder and high explosives.[195] In general, the period from 1884 to 1893 witnessed the most rapid material progress ever experienced in the history of the American navy.

V

On March 4, 1893 Grover Cleveland reentered the maelstrom of political life when he took the oath of office as President of the United States for the second time. His selection for the position of Secretary of the Navy was Hilary Herbert, a native of South Carolina. At the University of Alabama he had been a leader in his class, but he and his clique had withdrawn from the University because of resentment at the treatment accorded one of their classmates by a member of the faculty. As a consequence,Herbert entered the University of Virginia, but was soon obliged to withdraw because of ill health. He began reading law privately in 1856 and succeeded in passing the bar examination after four months of study.[196] He participated actively in the Civil War, entering the Confederate army as a second lieutenant and rising to the rank of Lieutenant-Colonel.[197] After the cessation of

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193. Ibid.
194. Ibid.
195. Ibid.
196. Malone, op. cit., vol. VIII, p. 572.
197. Ibid.

hostilities he resumed his legal practice in Alabama and in 1877 was elected to the legislature from the Montgomery district.[198] In Congress he played a conspicuous part, being a member of the important Committee on Ways and Means and also serving at three times as chairman of the Committee on Naval Affairs.[199] In the latter capacity he was largely instrumental for the increased appropriations which led to the revival of the American navy.[200]

One of the outstanding influences on Herbert and his policy of a bigger and better American navy was the inauguration of naval building programs in the principal European countries. The new British program called for the construction over a period of five years of one hundred and ten vessels of all classes, including ten first-class battleships, six second-class battleships and thirty-three cruisers.[201] The French shipbuilding program adopted in 1891 provided for eighty-one new vessels which were to be built over a period of ten years.[202] It was evident that the European powers were beginning a naval race, and the unfavorable position of the United States in comparison with the European nations caused Herbert to reveal and urge the need of a continued policy of naval construction.[203] The United States, because

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198. Ibid.
199. Ibid.
200. Ibid.
201. Report of Secretary of Navy Herbert, 1894, House Executive Documents, 53rd Congress, 3rd session, p. 24.
202. Ibid,, p. 25.
203. Report of Secretary of Navy Herbert, 1895, House Executive Documents, 54th Congress, 1st session, p. XXIV.

of its new diplomacy, was taking a greater interest in international affairs and as a consequence was being influenced by the developments among the foreign powers of the world. This fact was reflected in Herbert's recommendations for additional vessels. In 1893 he recommended the construction of one battleship and six torpedo boats;[204] in 1894 he asked the construction of three battleships and twelve torpedo boats;[205] the report for 1895 recommended the construction of two battleships and at least twelve torpedo boats,[206] and Herbert's last report in 1896 again urged construction of twelve torpedo boats.[207]

As in the two previous administration each session of Congress witnessed the passage of a naval appropriation bill providing for a substantial increase in the naval establishment. The measure adopted on July 26, 1894 provided for the following: (1) an appropriation of $4,000,000 for the armor and armament of the vessels previously authorized; (2) an appropriation of $5,955,025 for the hulls and steam machinery of certain new vessels, from which amount a sum was to be taken for the payment of all earned speed premiums to January 1, 1894 which remained unpaid; (3) an authorization for the Secretary of the Navy to use the $450,000 for the construction of "an additional cruiser of the Vesuvius type" appropriated by the Act of March 2, 1889, for the construction, armament and equipment

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204. Report of Secretary of Navy Herbert, 1893, House Executive Documents, 53rd Congress, 2nd session, p. 38.
205. Report of Secretary of Navy Herbert, 1894, House Executive Documents, 53rd Congress, 3rd session, p. 49.
206. Report of Secretary of Navy Herbert, 1895, House Executive Documents, 54th Congress, 1st session, p.LVII.
207. Report of Secretary of Navy Herbert, 1896, House Executive Documents, 54th Congress, 2nd session, p. 47.

of three torpedo boats.[208]

The Congressional measure of March 2, 1895 contained the following provisions: (1) the construction of two battleships to have the heaviest armor and most powerful ordnance upon a displacement of 10,000 tons at a cost not exceeding $4,000,000 each; (2) the construction of six gunboats of 1,000 tons displacement at a cost of not more than $230,000 each; (3) the construction of three torpedo boats to cost not exceeding $175,000 each; (4) construction was to be on the same lines as previously set forth, but no premiums were to be offered to contracting firms; (5) an appropriation of $4,837,670 for armor and armament of which $2,000,000 was to be made immediately available; (6) an appropriation of $8,342,422 for construction and steam machinery, of which $2,000,000 was to be immediately available; (7) an appropriation of $125,000 for completion of the equipment of vessels previously authorized; (8) additional appropriations of $22,429.30 to the contractors for the construction of the "Maine" for the earned premium over and above the contract horsepower, and of $40,350 for the remission of time penalties on the "Yorktown," "Baltimore," "Philadelphia" and "Newark."[209]

In the naval appropriation act of June 10, 1896, Congress made provisions for: (1) three battleships designed

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208. United States Statutes, vol. 28, 53rd Congress, 2nd session, pp. 123-141.
209. United States Statutes, vol. 28, 53rd Congress, 3rd session, pp. 825-843.

to carry the heaviest armor and most powerful ordnance upon a displacement of about 11,000 tons, having the highest practicable speed and costing not more than $3,750,000 each; (2) three torpedo boats having a maximum speed of not less than thirty knots to cost in all not exceeding $800,000; (3) not more than ten additional torpedo boats to cost in all not exceeding $500,000; (4) not more than two of the ships and not more than three of the torpedo boats to be built in one yard or by one contracting party, and in each case the contract was to be awarded to the lowest responsible bidder; (5) an appropriation of $6,870,600 for completion of construction and the machinery of certain new vessels; (6) an appropriation of $4,371,454 for armor and armament of various new vessels; (7) an appropriation of $237,000 for the equipment of new vessels.[210]

The final naval appropriation measure of the second Cleveland administration contained these terms: (1) a provision for the construction of three torpedo boats having a maximum speed of thirty knots and costing not more than $800,000 in all; (2) not more than two of the authorized torpedo boats were to be built in one yard or by one contracting party; (3) the appropriation of $6,425,359 for the hulls and machinery of certain new vessels; (4) an appropriation of $7,220,796 for armor and armament; (5) an appropriation of $250,000 for one composite vessel, propelled

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210. United States Statutes, vol. 29, 54th Congress, 1st session, pp. 361-380.

by steam and sail, to be used for the training of cadets at the Naval Academy.[211] This measure, like the others passed in response to Herbert's recommendations, failed to meet fully the demands of the Secretary but demonstrated a willingness on the part of Congress to continue some naval building in order to meet the increased naval establishments of the foreign powers.

Although President Cleveland maintained in general the same attitude toward naval construction which he had exhibited during his first term of office, he warned against proceeding too hastily. In his first annual message of December 4, 1893 he stated:

> While I am distinctly in favor of consistently pursuing the policy we have inaugurated of building up a thorough and efficient Navy, I cannot refrain from the suggestion that the Congress should carefully take into account the number of unfinished vessels on our hands and the depleted condition of our Treasury in considering the propriety of an appropriation at this time to begin new work.[212]

The influence of Cleveland's suggestion at that time was revealed in the Congressional measure of July 26, 1894 which provided that the only construction should be that of three torpedo boats to be paid for by the use of a previous appropriation. Cleveland gave his approval toward the new proposals for battleships and torpedo boats by saying, "I recommend that provisions be made for the construction of additional battleships and torpedo boats."[213] He also

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211. United States Statutes, vol. 29, 54th Congress, 2nd session, pp. 648-665.
212. Richardson, op. cit., vol. IX, p. 450.
213. Ibid., p. 540.

supported Herbert's demands for a rejuvenation of the personnel of the navy through a revision in the system of promotions. In his Annual Message of December 3, 1894 Cleveland spoke on this matter as follows:

> I feel it my imperative duty to call attention to the recommendation of the Secretary in regard to the personnel of the line of the Navy . . . I consider it of the utmost importance that the young and middle-aged officers should before the eve of retirement be permitted to reach a grade entitling them to active and important duty.[214]

In his last message on December 7, 1896 Cleveland stressed the rapid progress made in manufacturing facilities in the United States and expressed confidence that the ships of the American fleet were equal to the best that could be manufactured anywhere.[215]

Meanwhile public interest in the vastly improved national fleet was being actively stimulated, for not only were the newspapers and periodicals of the country giving liberal attention to the developments in naval progress, but the administration itself was actively engaged in arousing public enthusiasm over the nation's navy. Opportunity for this favorable type of publicity was afforded by the holding of the World's Columbian Exposition at Chicago in 1893. At that exposition the Navy Department housed its exhibits in a brick building constructed in the form of a vessel and conforming in dimensions to the newly constructed battleships.[216]

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214. Ibid.
215. Ibid., p. 733.
216. Report of Secretary of Navy Herbert, 1893, House Executive Documents, 53rd Congress, 2nd session, p. 57.

On the main deck of this model ship were placed exhibitions of various man-of-war fittings, while the berth deck contained exhibits of the various bureaus of the Navy Department as well as articles offered for exhibition by different companies producing articles for naval purposes. Nearby was a naval observatory, while a camp of sixty United States marines was also located in the same vicinity. The popularity of the naval exhibits was attested to by the great number of spectators it attracted, the daily attendance averaging nearly 20,000 with the largest single day's attendance being 67,000. In all over 3,000,000 visited the "vessel" and it played a part of tremendous importance in serving as a source of instruction to the people as well as in stimulating public interest in the navy.[217]

With the preparatory and experimental work largely completed, the work on the mordern naval vessels during Cleveland's second administration was carried on at an increased rate of speed. When Hilary Herbert resigned the portfolio to John D. Long in March 1897, the American navy contained forty-two vessels which had been completed since the inauguration of the new naval policy in 1881.[218] Of these new modern vessels twenty-two, including the three first-class and two second-class battleships, were placed in commission during Herbert's term of office as Secretary.[219]

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217. Ibid, pp. 57-58.
218. Rhodes, op. cit., p. 441.
219. Ibid.

While the great increase in the number of ships represented the most conspicuous achievement of the Herbert period as Secretary of the Navy, Herbert did not neglect the problem of the civil administration of naval affairs. Secretary Whitney's proposed reforms of an earlier date, while favored by a majority of the members in the House of Representatives, had failed of enactment when the determined opposition took advantage of the dilatory methods sanctioned by the House rules to prevent the measure from reaching a vote.[220] Herbert directed his efforts toward the concentration of responsibility for ship construction, hoping to accomplish the same results in that respect that Whitney and Tracy had secured in bringing the personnel and the supplies and accounts of the Navy, respectively, under a proper and efficient control.[221] To achieve his purpose Herbert issued an order on October 2, 1894 charging the Bureau of Construction and Repair with the responsibility for the design, structural strength, and stability of all vessels to be built.[222] No changes in the ships from the original design were to be made unless approved by the Department, while the Chiefs of the Bureaus desiring to make changes had to submit their propositions in writing to the Department through the Bureau of Construction and Repair. In like manner, if the chief of the Bureau of Construction

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220. Report of Secretary of Navy Herbert, 1894, House Executive Documents, 53rd Congress, 3rd session, p. 14.
221. Ibid, p. 15.
222. Ibid.

and Repair desired to make any change in the hull affecting the work of any other bureau, his request for the Department to sanction such a change had to be forwarded, through the bureau affected to the Secretary for his approval or disapproval. The effect of this departmental order was to concentrate under one head full and accurate information as to the nature and extent of every change authorized to be made in a ship from the time it was laid down until its completion.[223]

Improvements were also made in the conduct of the business affairs of the Navy Department. In spite of Whitney's concentration of all accounts in the Bureau of Supplies and Accounts, the other bureaus continued to keep accounts which varied from each other as well as from the returns made to the Bureau of Supplies and Accounts.[224] Herbert discontinued all such unnecessary accounts and also prohibited unnecessary copies of correspondence.[225] As a further aid to business procedure in the department each bureau was to be informed as to the condition of its appropriations by weekly statements of balances, and as to the cost of labor and material by transcripts from job order books and records of finished jobs at the navy-yards.[226] The efficacy of Herbert's reforms was borne out by the experience of the

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223. Ibid.
224. Report of Secretary of Navy Herbert, 1895, House Executive Documents, 54th Congress, 1st session, p. XVII.
225. Ibid.
226. Ibid.

next two years, and Herbert's report of 1896 contained the following words of praise for their success:

> Two years of practical experience under the provisions of this general order have demonstrated fully its wisdom, and the Department is now in a position to feel perfect confidence as to the ultimate results to be obtained from new designs, and can fix most definitely responsibility for any failures therein.[227]

In addition to these progressive changes Herbert continued the program of establishing an efficient naval militia as well as maintaining and improving the civil service rules governing the labor at navy-yards.[228] In regard to the former there was an increase in the number of men in the naval militia from 1,744 in 1893 to 3,339 in 1896, while the number of states having such organizations increased to fourteen.[229] The Navy Department also granted authority for officers of the naval militia to attend courses at the Naval War College and Torpedo School at Newport, Rhode Island.[230]

As the inauguration of the new policy of civil service for labor at the navy-yards had been inaugurated by Tracy during a Republican administration, many Republican partisans were retained.[231] Despite considerable pressure and agitation for him to disregard or abrogate the rules, Herbert steadfastly refused to do so, and defended his course of action by stating:

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227. Report of Secretary of Navy Herbert, 1896, House Executive Documents, 54th Congress, 2nd session, p. 16.
228. Ibid., p. 20.
229. Ibid.
230. Ibid., p. 24.
231. Ibid., p. 46.

> If such a system was ever to be in force, it must have a beginning, and if the first Secretary coming in after the adoption of rules, against which the only objection was present inequality of political representation, should attempt equalization from his standpoint, every succeeding Secretary would have excuse for taking his bite at the cheese, and so the prospect would be that the whole system would be eventually nibbled away to nothing. It was therefore determined, with your full concurrence, that for the good of the Government the system should be adhered to, and this course has been pursued faithfully.[232]

Herbert not only adhered to the rules but improved upon them by making several changes, namely: (1) that the names were not to remain on the lists subject to call for more than a year; (2) that whenever an employee was discharged his workmanship and conduct were to be marked "excellent," "good," or "poor," and that those with good records would become preferred applicants and would also have the privilege of being furloughed instead of discharged when lack of work necessitated a reduction of the force; (3) that by an order of President Cleveland on May 6, 1896 civil service rules were to be applied so as to cover all employees at navy-yards whose duties were of a clerical nature.[233] Herbert's interest in the progress and development of the Navy Department transcended all political considerations.

Coming in after the new naval policy had been well started, Herbert had no opportunity to do pioneer work,

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232. Ibid.
233. Ibid., p. 47.

nevertheless his contributions were vital to the future success of the navy. Under him experimentation ceased and construction was focused upon the battleships and torpedo boats.[234] "His battleships and torpedo boats were the true predecessors of the present super-dreadnaughts and destroyers."[235] Herbert also had to contend with a problem which his predecessors had not encountered, namely the presence of a huge deficit resulting from a period of depression which had replaced a substantial surplus in the national Treasury.[236] Under those conditions Herbert must have had to insist strenuously upon his program to carry it out to the extent he did.[237] Herbert, like his immediate predecessors in the Navy Department, faced problems which necessitated Congressional legislation for their solution, but when he could not get Congress to make changes he did what he could through departmental orders, and his greatest reform contribution was making the Bureau of Construction and Repair responsible over the other bureaus for the construction and repair of ships.[238]

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Throughout the period from 1881 to 1897 the daily newspapers as well as the various periodicals took an active part in arousing and sustaining public opinion relative to the nation's progress in naval expansion. Several

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234. Rhodes, op. cit., p. 442.
235. Ibid.
236. Ibid.
237. Ibid.
238. Ibid.

representative excerpts will be given here to show the nature of the publicity given the naval program. The vast majority of newspaper and periodical articles favored the policy adopted by the nation in 1881, but there were a few which warned against too rapid progress. Not only were the public expressions prominent in keeping the progress of the naval construction before the people, but they also served to arouse public opinion to a realization of the need for a program of naval expansion. An example of the latter type of article was that appearing in the International Review in 1879 which discussed in an intelligent and thorough manner the status of the navy, the deterioration which had set in, and the need for a modern fleet as well as a more efficient personnel.[239] Similar articles appeared in 1882 in the North American Review and in the International Review.[240] These articles were typical of many which appeared in the various publications during the period under consideration.

A critical analysis of Whitney's proposed reforms, which were than under consideration in Congress, appeared in the Nation,[241] advocating in general their acceptance with the exception of the recommendation for a "Board of Council" which was to advise the Secretary. This article stated that "wise men look with distrust upon legislation to do that

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239. International Review, April, 1879, pp. 368-385.
240. North American Review, May, 1882, pp. 486-506.
International Review, July, 1882, p. 34.
241. Nation, February 25, 1886.

which is already done without legislation." The main objection to the scheme was that it would abolish the individual responsibility of the Navy Department staff.

Two articles appearing in February, 1887 are interesting in that they both dealt with the progress of naval construction thus far, and with the need for the future development of the navy. The first, written by James R. Soley, appeared in Scribner's Magazine[242] and commended the good beginning which had been made in rehabilitating the naval forces of the nation, but warned against a possible cessation at this elementary stage. Soley emphasized the point that the navy existed for war purposes as well as for peace, and that the sense of security resulting from her long isolation should not lead America to become too lax in regard to providing adequate defenses. He added the statement that "potential strength will not deter foreign states from a policy of aggression."[243] He also urged that the long intervals of peace should be used for training seamen rather than curtailing naval activity, and that the system of promotion by seniority should be revised.[244] The second article of similar character was published in the Philadelphia Telegraph, and it read in part as follows:

> As regards this matter of naval improvement, we have been distinctly out of current. Our Navy is in many particulars not so strong as it was at the close of the Civil War in 1865; for, wisely

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242. Scribner's Magazine, February, 1887.
243. Ibid., p. 224.
244. Ibid., p. 228.

> or unwisely, we have acted upon the policy of permitting Europe to make and pay for the costly experiments which all experts knew would be necessary when the different armored vessels which did such effective fighting during the Civil War had demonstrated their qualities....there is certainly at this time no reason for serious doubt that we may not, consistently with the highest public welfare, any longer neglect to provide our interests on the high seas and our extended seaboard with such defenses as only can be supplied by a fleet of vessels fitted with all the most approved modern appliances. At the best, it will take a number of years before we can bring such a fleet into being.... What needs to be done, therefore, cannot safely be denied; and it will be shameful for the present session of Congress to end without adequate provisions for the Navy of the future being made. As matters now are, we simply offer temptations to the Powers, great and small, which are represented on the high seas by well-equipped ships of the modern pattern.[245]

Despite the publication of many articles of such character, there was a considerable amount of unfavorable expression to the naval program, and illustrative of this was a discussion which appeared in the Nation.[246] The writer discounted the argument that a large navy was necessary to increase and insure foreign commerce, as well as warning against the rise of a jingoist spirit because of increased armaments. E. L. Godkin, editor of the Nation, wrote in a similar vein with special reference to the Chilean situation which threatened hostilities.[247] He decried the fact that the press in general had stimulated the combativeness of both the navy and the people of our country.

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245. Philadelphia Telegraph, quoted in Public Opinion, February 26, 1887, pp. 429-430.
246. Nation, April 18, 1889.
247. Nation, December 24, 1891, p. 483.

The Century Magazine for August, 1887 discussed in an editorial the problem of a naval reserve and evaluated such a system in the following words:

> The adoption of such a plan would enable the Government, at the first sign of war, to fit out at once all the ships laid up at its Yards, instead of marking time while its squadrons returned from distant stations, or, worse still, while Congress deliberated upon the best method of mobilizing a force that was not yet organized, trained, or even recruited. Certainly no measure of national defense is more reasonable and practical than this, and there is none that calls more urgently for immediate action.[249]

Considerable attention was also given to the improvement of the enlisted personnel of the navy. The following comments are illustrative:

> There is one serious matter that somewhat mars the American's pleasure when he considers the gratifying progress that has recently been begun in the American Navy....with ships ready for sea the next question is: How shall they be manned?....A very large proportion of the enlisted seamen in the navy are foreigners. In the event of a war, it need hardly be said that these foreigners would have a rather languid interest in the flag under which they would be serving. The next step, then, in rehabilitating the American Navy should be to remedy this evil.[250]

The Boston Journal for February 4, 1889 commented on the rapid progress being made and emphasized the fact that work of supervising such large expenditures required a Secretary possessed of "rare business ability, energy, integrity and discretion."[251] After the selection of Tracy the New Orleans Picayune, a Democratic paper, continued publicity for the appointment of a civilian member to be

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249. Century Magazine, August, 1887.
250. Public Opinion, November 17, 1889.
251. Ibid,, February 9, 1889.

Assistant Secretary.[252] This, along with other public statements, had its effect, as Secretary Tracy revived the position of Assistant Secretary when he promoted J. R. Soley from Librarian to the post as Assistant to Tracy.[253]

Probably the feature of the naval program which attracted the widest attention was the trend toward larger vessels and toward a fleet comparable to the European navies. The Boston Advertiser of January 17, 1890 discussed that situation as follows:

> Secretary Tracy is right in saying that our government should begin at once the construction of some armored fighting vessels of the first order. Our "squadron of evolution" is good of its kind. There is nothing better of the same kind anywhere. But....they are cruisers. The business of a cruiser is to cruise. The business of a battleship is to win battles.....National safety can be sufficiently provided for by a much smaller kennel of "sea dogs" than that which Germany, France, and Russia severally maintain. But we ought to have a few ships of war equal to any that float ships, that no other could outsail or outmaneuver, of no less tonnage than the greatest of their possible antagonists.[254]

The New York Times was likewise in full accord with Tracy's proposals, and commended them in the following words:

> As these suggestions are studied, their excellence grows more and more clear. They are made in view of our harbors, their number and depth, and the kind of work likely to be demanded of a United States Navy, and they certainly are liberal enough to meet the needs of the service fully.[255]

The New York Sun also approved of the proposed fleet by stating in part:

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252. Ibid., July 6, 1889.
253. Nation, March 2, 1893, p. 154.
254. Public Opinion, January 25, 1890, p. 318.
255. Ibid.

> The supposed distinction between offensive and defensive naval warfare is purely imaginary. No provision for national defense will be effective which does not also provide means for prompt and mighty aggressive operations in case of trouble.... It is nonsense to say that because we are a peaceable people and mean to remain at peace with the world if we can, this country does not require a navy capable of fighting, if fighting there must be.[256]

The New Orleans Times also contained an article lending full support to the proposals outlined by Tracy and his advisers.

Dissenting opinions, however, were presented, and one of the most notable of those, appearing in the Boston Herald, ran as follows:

> It may be doubted whether we would not be equipping ourselves....with a very much larger navy than we have any need of maintaining. Why should we care to stand in the front rank of naval powers when we know that foreign countries are practically powerless to do anything more than attack our seaports, which can be defended, and when we have no desire to carry on an offensive warfare?[257]

On January 17, 1890 the Boston Post made the following remarks:

> There is danger that in the national pride in the success of the naval vessels built already the construction of new ships may be carried on too fast. The board of naval officers appointed by Mr. Tracy to report a plan have been exceedingly liberal in their suggestions .... There is no reason why the United States should attempt to compete with great naval powers like Great Britain and France in maintaining costly armaments.... Each one of the types of vessel mentioned in their report ought unquestionably to be provided at some time or another; but it may possibly be found upon examination that the numbers may be materially

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256. Ibid.
257. Ibid.

> reduced without impairing that reasonable degree of efficiency which ought to be attained.[258]

With public opinion in general divided into the two opposite points of view, the legislation enacted by Congress was in large part an adaptation of both views resulting in a middle-of-the-road course.

In addition to the expressions of the Press there were other factors which affected the course of naval legislation. As mentioned previously the resolutions passed by various Chambers of Commerce brought to the forefront the problem of a naval reserve. Other organizations were also actively interested in promoting naval progress. The National Board of Trade, assembled in yearly conference at Louisville, in October, 1889 also passed resolutions asking Congress to organize a naval reserve.[259] Perhaps the most active organization was the Farragut Naval Association which consisted of a large number of men who had participated in the Civil War.[260] This group called attention to the disadvantageous positions of the United States in the event of a foreign war, especially in regard to the lack of adequate coast defenses, and requested the cooperation of Western Congressmen, newspapers, boards of trade, and civic corporations.[261]

The activities of these various civic groups, combined with the abundance of newspaper and periodical literature, could not fail to have some effect in focusing the attention

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258. Ibid.
259. Ibid., October 19, 1889.
260. Ibid.
261. Ibid.

of Congress upon the naval needs of the nation. At the same time it served a purpose, not only as an expression of public opinion, but as an agent of arousing and guiding public opinion.

VII

The present-day pictorial presentations of the American navy, which are brought forth most frequently in newspapers, periodicals, and motion pictures, as well as in the more technical expository articles on the developments in naval science, bring one to the startling realization of the tremendous progress that the American navy has made since the early eighties.

In respect to the formulating of a modern naval policy and the material construction of the ships as well as the training of an efficient personnel in the Navy Department between the years of 1881-1897, certain deductions may be drawn. These concluding points in the discussion will be presented at this stage of the essay.

It is logical to inquire as to the actual condition of the American fleet in 1881 and to what extent it needed rehabilitation. Following the Civil War, while European experimentation produced improvements in naval construction with kaleidoscopic rapidity, the United States made no provisions for the construction of new vessels in accordance with such progress. This policy of indifference to naval improvements left the American navy in 1881 composed en-

tirely of obsolete wooden vessels, many of them having long since passed their period of usefulness. Even the Congressional appropriations which had been made for the repair and maintenance of the vessels had been dissipated to such an extent that little actual improvement had been made on the few ships constituting the fleet. The nation's navy was incapable of rendering assistance and protection to American citizens in foreign lands, and in case of a war with a foreign power it would have been most inadequate, if not entirely useless in meeting such a situation. The backward condition of the navy was so obvious that even the most peace-loving citizens could have raised little objection to the launching of a progressive naval policy designed to modernize the country's fleet, for defense purposes at least.

Just what were the problems that confronted the United States in the development of its new naval program? One of the first difficulties arose from the lack of technical knowledge as to how to proceed in constructing modern steel vessels. Having been outside the current of naval experimentation, American naval experts were unable to even adopt the improved methods developed in Europe, when they were revealed. Another obstacle resulting from America's dilatory policy was the lack of adequate facilities, such as well equipped navy yards and concerns for the manufacture of armor plate and gun forgings, as well as a deficiency in technically trained men to be used in the manu-

facturing of steel vessels. As a consequence of that condition the United States was compelled to depend upon European concerns for her naval materials in the early stages of the new program. One of the more serious problems to be met concerned the defective organization of the Navy Department and the poor administration of it as reflected in its inefficiency and profligate wastefulness. There was not only friction between the civilian members and the "line", but there was also a lack of coordination and a definite designation of responsibility among the numerous bureaus within that Department. Each bureau chief assumed that his division was superior to the others and each acted independently in the administration of his duties, which frequently resulted in the extravagant and often unnecessary disposal of department funds. An antiquated and much abused system of bookkeeping not only added to the confusion, but made possible duplicate purchases as well as other needless expenditures, which might have been centered in a single purchasing agent for the whole Department. The situation, both in the Department and at the navy yards, required prompt attention in order to insure an efficient prosecution of any construction program.

What constituted the main features of the new naval program as adopted and what changes did it ultimately undergo? In its earlier stage the new program was very modest in scope, aiming merely at the gradual replacement of the obsolete wooden vessels with more modern cruisers. There

was no intention or attempt to construct huge vessels of war, or to create a formidable fleet capable of putting to rout the largest of the foreign fleets. Under Secretaries Chandler and Whitney the purpose of the naval program was to provide steel cruisers sufficient in number to safeguard American property and life on foreign soil as well as to afford protection to American commerce. In the period after 1892, however, the emphasis was placed on the construction of large battleships along with increases in other types of vessels, which resulted in a tremendous increase in the total naval strength. This transition was attributable in part to the huge naval expansion programs adopted by the leading European powers, as well as to the more aggressive type of American diplomacy as exemplified by James G. Blaine, which fostered a desire for a powerful navy. This change in attitude regarding the national fleet marked a radical departure from the traditional American policy of a small but efficient navy, and at the same time it coincided with an increased American participation in matters of international significance.

Furthermore, were there present any outstanding factors which helped to promote the cause of American naval progress? There were, indeed, several circumstances contributing to the success of the proposed naval enlargement. One of the most favorable conditions was the presence of a substantial surplus in the Treasury which did not disappear

until 1893. Assured of sufficient funds it was only natural that, in the light of the sorry condition of the navy, attention should be given to the nation's defensive agencies. A second factor encouraging the development of a new naval program was the publicity given it by the Press of the country, as well as the lively interest of numerous civic organizations in behalf of the navy. The policy inaugurated in 1881 was furthered by the wholehearted support given it by the country's chief executives, who were very much in favor of rejuvenating and modernizing the American navy. All of the presidents during the period from 1881 to 1897 supported the Navy Department's recommendations and frequently urged Congressional legislation for carrying out the Secretaries' proposals. Still another factor promoting the new naval policy was the capable leadership afforded by the Secretaries of the Navy, who were men of integrity and considerable ability. As already mentioned, considerable impetus to the promotion of a naval construction program was provided by the adoption of ambitious naval expansion programs in the principal countries of Europe. Finally, a most significant factor was the presence of a considerable expansionist element who favored a greater participation of this country in world affairs. In James G. Blaine they found their spokesman, and his influence had much to do in continuing and expanding the naval progress begun in 1881.

How well qualified and how capable were the men who

served as Secretaries of the Navy during the period from 1881 to 1897? None of the Secretaries had more than a rudimentary knowledge of technical naval affairs, nor did any of them lay claim to any particular talent along that line. However, the chief prerequisite of their position was administrative ability, a quality which each incumbent possessed to a high degree. All had attended college and all had considerable legal training as well as political experience. The honesty of only one, Secretary Chandler, has been subjected to question, and his fault was due to a misguided generosity in repaying a political favor. The five Secretaries who guided the naval program displayed a genuine and sincere interest not only in the enlargement of the fleet, but in the improvement of the Navy Department as well. While Chandler did little in a concrete way to reorganize the Department, Whitney, Tracy and Herbert wrought changes which rendered the Navy Department more efficient and orderly. It was most fortunate that men of such high caliber were chosen to formulate the policies and to administer the affairs of the Navy Department during this important period.

Was the naval construction program as inaugurated in 1881 one of continuous progress or was it subject to temporary setbacks? Perhaps few programs of national importance have been more consistently and progressively fostered than the naval program set in motion by Secretary of Navy Hunt. There was no retrogression nor cessation of

of activities, since each successive administration encouraged not only the continuation but the enlargement of the program. As has been noted the start in construction was delayed because of the nation's state of unpreparedness, but once underway rapid progress was made, and appropriations were voted in each session of Congress. In this connection it must be mentioned that the naval program was entirely non-partisan, as both Republican and Democratic administrations espoused it with equal vigor. While there was no inclination to limit or halt the policy of naval expansion, there was a decided tendency during the latter half of the period under discussion to enlarge the scope and purpose of the program.

What gains were actually made as a result of the naval program from 1881 to 1897? Was the project worthwhile? Did the results justify the enormous expenditures? Granting that an efficient navy was desirable, the plan of naval modernization was most successful in that it created a naval establishment which far exceeded the anticipations of the early advocates of an improved navy. The American naval establishment of 1881 represented the nadir of inefficiency; the navy as an arm of protection for national sovereignty and integrity was completely innocuous. In contrast to that condition was the effective modern navy of 1897 which ranked fourth among the navies of the world. As one naval historian has put it, "We have from our own

resources, mental and material, sent afloat a White Squadron that, though small in number, is fit to keep the sea in spite of foul weather or any other foul force."[262] Perhaps the most concrete evidence is provided by a contrast of the fleet in 1881 consisting of only twelve seaworthy wooden vessels to the fleet of 1897 which comprised forty-two modern steel ships, with several more under construction.

Equal in importance to the growth of the fleet was the creation of a more efficient personnel. The primary factor in bringing about that achievement was the Naval War College at Newport, Rhode Island, which after 1885 provided naval officers an opportunity to become more familiar with their problems and responsibilities. It also served a purpose in bringing in rapport the officers of the nation's fleet. Another most notable achievement was the establishment in several states of a naval militia or naval reserve. Under the reserve system men from civil life were given training in naval tactics, so that in time of war the United States would have a considerable group of trained men to supplement its regular naval force. The naval reserve was greatly encouraged by the Navy Department and its establishment and development constituted one of the outstanding contributions to the American Navy during the period from 1881 to 1897.

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262. Spears, op. cit., p. 552.

Naval progress, however, was not confined merely to material growth, but it included vast improvements in the organization and the management of the administrative details of the Navy Department. In place of the confused and decentralized bureaucracy of 1881 there was developed a coordinated and smooth-running organization whose functions were definitely supervised by responsible agencies. The three most important changes were the assignment of all departmental purchases to the Bureau of Provisions, the separation of the supervision of construction from the administrative details of the Department, and the introduction of efficient and economical business methods within the Department. Other noteworthy reforms effected included the revival of the position of an Assistant-Secretary chosen from the Civilian group and the inauguration of the merit system for labor at the navy-yards. While Congress seemed willing to modernize the fleet, it was dilatory in legislating for an improved organization for the Navy Department, so that the various reforms were achieved through departmental orders and were thus limited in scope. Secretary Whitney's proposed reforms for reorganization of the Navy Department would have eliminated the basic source for many of the existing evils, but a hostile and intransigent minority in Congress prevented the proposals from reaching a vote. Nevertheless, Secretaries Whitney, Tracy and Herbert did much to improve the Navy Department by replacing chaos with some degree of order and efficiency. As a consequence of these reforms accurate

accounts were kept of all the Department's transactions and needless expenditures were checked.

The naval policy from 1881 to 1897 produced concomitant gains in other fields of endeavor, notably in the nascent American steel industry. Because of the rapid expansion of the American navy and the demand for steel products, these corporations, then in their infancy, were encouraged to expand and improve their production facilities. The government fostered this development and helped to lay the foundation for the titanic steel enterprises of the future. An American naval historian, writing in 1901, commented that in 1882 there was no establishment in the United States capable of manufacturing armor plates over five inches thick, yet by 1901 plates of the greatest thickness had been turned out by American plants.[263] Thus, the development of the steel corporations worked to the advantage of the American navy as well as for the benefit of the concerns themselves. The growth of one was intimately bound up with the growth of the other.

The period from 1881 to 1897 witnessed phenomenal developments in the fortunes of the American navy. From a position of practical obscurity the navy grew into one of the most powerful fleets in the world. But of even greater importance was the fact that the changes wrought during that period prepared the foundation for future naval

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263. Maclay, op. cit., p. 21.

progress. The vessels built were the precursors of the present-day dreadnaughts, whose construction was made possible by the improvement in construction methods which came as a result of the experience gained during the years from 1881 to 1897.

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Appendix A

Congressional Legislation for Naval Construction, 1883-1897

Vessels Authorized and Dates of Acts of Congress	Amounts Authorized	Amounts Appropriated For Hull and Machinery	Amounts Appropriated For Armor, Armament and Equipment	Contract Price
March 3, 1883				
Chicago	4,218,801.80	-------	----------	889,500.00
Atlanta		-------	----------	617,000.00
Boston		-------	----------	619,000.00
Dolphin		-------	----------	315,000.00
For above vessels	-------	1,300,000.00	----------	------
For above vessels including their armament and equipment by Acts of July 7, 1884, March 3, 1885, July 26, 1886, March 30, 1888	-------	2,968,801.00	----------	------
March 3, 1885				
Newark	1,300,000.00	-------	----------	1,248,000.00
Charleston	1,100,000.00	-------	----------	1,017,500.00
Yorkstown	520,000.00	-------	----------	455,000.00
Petrel	275,000.00	-------	----------	247,000.00
For above vessels	-------	1,895,000.00	----------	------
August 3, 1886				
Baltimore	1,500,000.00	-------	----------	1,325,000.00
Vesuvius	350,000.00	-------	----------	350,000.00
Cushing	100,000.00	-------	----------	82,750.00

Vessels Authorized and Dates of Acts of Congress	Amounts Authorized	For Hull and Machinery	For Armor, Armament and Equipment	Contract Price
Maine	2,500,000.00	- - - - - -	- - - - - - - - - -	- - - - -
Texas	2,500,000.00	- - - - - -	- - - - - - - - - -	- - - - -
Puritan	3,178,046.00	- - - - - -	- - - - - - - - - -	- - - - -
Monadnock		- - - - - -	- - - - - - - - - -	- - - - -
Amphitrite		- - - - - -	- - - - - - - - - -	- - - - -
Terror		- - - - - -	- - - - - - - - - -	- - - - -
For above vessels	- - - - - -	2,275,000,00	- - - - - - - - - -	- - - - -
March 3, 1887				
Miantonomah	758,517.85	- - - - - -	- - - - - - - - - -	- - - - -
For above vessel	- - - - - -	2,420,000,00	- - - - - - - - - -	- - - - -
Philadelphia	1,500,000.00	1,500,000.00	- - - - - - - - - -	1,350,000.00
San Francisco	1,500,000.00		- - - - - - - - - -	1,428,000.00
Concord	550,000.00		- - - - - - - - - -	490,000.00
Bennington	550,000.00		- - - - - - - - - -	1,628,950.00
Armament of all vessels authorized	- - - - - -	- - - - - -	2,128,362.00	- - - - -
Armor and gun steel for all vessels authorized	- - - - - -	- - - - - -	4,000,000.00	- - - - -
September 7, 1888				
New York	3,500,000.00	- - - - - -	- - - - - - - - - -	2,985,000.00
Olympia	1,800,000.00	- - - - - -	- - - - - - - - - -	1,796,000.00
Cincinnati	1,100,000.00	- - - - - -	- - - - - - - - - -	- - - - -
Raleigh	1,100,000.00	- - - - - -	- - - - - - - - - -	- - - - -
Montgomery	700,000.00	- - - - - -	- - - - - - - - - -	612,500.00
Detroit	700,000.00	- - - - - -	- - - - - - - - - -	612,500.00
Marblehead	700,000.00	- - - - - -	- - - - - - - - - -	674,000.00
For above vessels	- - - - - -	3,500,000.00	- - - - - - - - - -	- - - - -
Bancroft	260,000.00	260,000.00	- - - - - - - - - -	250,000.00
Armament of all vessels authorized	- - - - - -	- - - - - -	2,000,000,00	- - - - -

Vessels Authorized and Dates of Acts of Congress	Amounts Authorized	Amounts Appropriated: For Hull and Machinery	Amounts Appropriated: For Armor, Armament and Equipment	Contract Price
March 2, 1889				
Machias	350,000.00	- - - - - -	- - - - - - - -	318,500.00
Castine	350,000.00	- - - - - -	- - - - - - - -	318,500.00
Katahdin	1,513,691.31	- - - - - -	- - - - - - - -	930,000.00
For above vessels	- - - - - -	4,055,000.00	2,500,000.00	- - - - -
June 30, 1890				
Armor and armament of all above-named vessels	- - - - - -	- - - - - -	2,500,000.00	- - - - -
Indiana	4,000,000.00	- - - - - -	- - - - - - - -	3,133,000.00
Massachusetts	4,000,000.00	- - - - - -	- - - - - - - -	3,133,000.00
Oregon	4,000,000.00	- - - - - -	- - - - - - - -	3,301,510.00
Columbia	2,750,000.00	- - - - - -	- - - - - - - -	2,725,000.00
Ericsson	125,000.00	- - - - - -	- - - - - - - -	113,500,00
For above vessels	- - - - - -	5,475,000.00	- - - - - - - -	- - - - -
September 29, 1890				
Nickel matte for armor of all vessels	- - - - - -	- - - - - -	800,000.00	- - - - -
March 2, 1891				
Minneapolis	2,750,000.00	- - - - - -	- - - - - - - -	2,690,000.00
For above vessels	- - - - - -	12,107,000.00	4,000,000.00	- - - - -
For equipment of new vessels	- - - - - -	- - - - - -	400,000.00	- - - - -
March 3, 1891				
For above vessels	- - - - - -	1,000,000.00	- - - - - - - -	- - - - -

Vessels Authorized and Dates of Acts of Congress	Amounts Authorized	Amounts Appropriated: For Hull and Machinery	Amounts Appropriated: For Armor, Armament and Equipment	Contract Price
July 19, 1892				
Brooklyn	3,500,000.00	- - - - - -	- - - - - - - - - -	2,986,000.00
Iowa	4,000,000.00	- - - - - -	- - - - - - - - - -	3,010,000.00
For above vessels	- - - - - -	7,000,000.00	2,000,000.00	- - - - -
For equipment of above vessels	- - - - - -	- - - - - -	400,000.00	- - - - -
March 3, 1893				
Nashville	400,000.00	- - - - - -	- - - - - - - - - -	280,000.00
Wilmington	400,000.00	- - - - - -	- - - - - - - - - -	280,000.00
Helena	400,000.00	- - - - - -	- - - - - - - - - -	280,000.00
Plunger	200,000.00	- - - - - -	- - - - - - - - - -	150,000.00
For above vessels	- - - - - -	6,875,000.00	- - - - - - - - - -	- - - - -
For equipment of above vessels	- - - - - -	- - - - - -	250,000.00	- - - - -
July 26, 1894				
For above vessels	- - - - - -	5,955,025.00	4,000,000.00	- - - - -
Foote	150,000.00	- - - - - -	- - - - - - - - - -	97,500.00
Rodgers	150,000.00	- - - - - -	- - - - - - - - - -	97,500.00
Winslow	150,000.00	- - - - - -	- - - - - - - - - -	97,500.00
Remission of time penalties, Vesuvius	- - - - - -	39,700.00	- - - - - - - - - -	- - - - -
March 2, 1895				
Annapolis	230,000.00	- - - - - -	- - - - - - - - - -	227,700.00
Vicksburg	230,000.00	- - - - - -	- - - - - - - - - -	229,400.00
Newport	230,000.00	- - - - - -	- - - - - - - - - -	229,400.00
Princeton	230,000.00	- - - - - -	- - - - - - - - - -	230,000.00
Wheeling	230,000.00	- - - - - -	- - - - - - - - - -	219,000.00

Vessels Authorized and Dates of Acts of Congress	Amounts Authorized	Amounts Appropriated: For Hull and Machinery	Amounts Appropriated: For Armor, Armament and Equipment	Contract Price
Marietta	230,000,00	- - - - - -	- - - - - - - -	223,000.00
Porter	175,000.00	- - - - - -	- - - - - - - -	144,000.00
Du Pont	175,000.00	- - - - - -	- - - - - - - -	144,000.00
Rowan	175,000.00	- - - - - -	- - - - - - - -	160,000.00
Kearsarge	4,000,000.00	- - - - - -	- - - - - - - -	2,250,000.00
Kentucky	4,000,000.00	- - - - - -	- - - - - - - -	2,250,000.00
For above vessels	- - - - - -	8,364,851.30	4,837,670.00	- - - - - -
For equipment of above vessels	- - - - - -	- - - - - -	125,000.00	- - - - - -
Remission of time penalties	- - - - - -	40,350.00	- - - - - - - -	- - - - - -
February 26, 1896				
For equipment of above vessels	- - - - - -	- - - - - -	50,000.00	- - - - - -
June 10, 1896				
For equipment of above vessels	- - - - - -	- - - - - -	237,000.00	- - - - - -
Illinois	3,750,000.00	- - - - - -	- - - - - - - -	2,595,000.00
Alabama	3,750,000.00	- - - - - -	- - - - - - - -	2,650,000.00
Wisconsin	3,750,000.00	- - - - - -	- - - - - - - -	2,674,950.00
Dahlgren	800,000.00	- - - - - -	- - - - - - - -	194,000.00
Craven		- - - - - -	- - - - - - - -	194,000.00
Farragut		- - - - - -	- - - - - - - -	227,500.00
Mackenzie		- - - - - -	- - - - - - - -	48,500.00
Fox		- - - - - -	- - - - - - - -	81,546.00
Morris		- - - - - -	- - - - - - - -	85,000.00
Talbort		- - - - - -	- - - - - - - -	39,000.00
Gwinn	500,000.00	- - - - - -	- - - - - - - -	39,000.00
Davis		- - - - - -	- - - - - - - -	81,546.00
McKee		- - - - - -	- - - - - - - -	45,000.00
For above vessels	- - - - - -	6,870,600.00	4,371,454.00	- - - - -

Vessels Authorized and Dates of Acts of Congress	Amounts Authorized	Amounts Appropriated: For Hull and Machinery	Amounts Appropriated: For Armor, Armament and Equipment	Contract Price
March 3, 1897				
For equipment of above vessels	- - - - -	- - - - - -	162,628.00	- - - - -
Stringham	$800,000.00	- - - - - -	- - - - - - - -	236,000.00
Goldsborough		- - - - - -	- - - - - - - -	214,500.00
Bailey		- - - - - -	- - - - - - - -	210,000.00
For above vessels . .	- - - - -	6,425,359.00	1,220,796.00	- - - - -
Chesapeake	250,000.00	250,000.00	- - - - - - - -	112,600.00
Total	$7,004,056.96	$1,576,687.10	41,982,910.00	59,458,852.00

Senate Documents , 57th Congress, 1st Session, Senate Document No. 175, pp. 4-9

Appendix B

Progress in Naval Construction during the First Administration of Cleveland, 1885-1889.

Name of Vessel	Type of Vessel	Status
Dolphin	Dispatch Vessel	Commissioned
Boston	Protected Cruiser	Commissioned
Atlanta	Protected Cruiser	Commissioned
Chicago	Protected Cruiser	Commissioned
Charleston	Protected Cruiser	Launched
Baltimore	Protected Cruiser	Launched
Yorktown	Gun-boat	Launched
Petrel	Gun-boat	Launched
Nevark	Protected Cruiser	Building
Philadelphia	Protected Cruiser	Building
San Francisco	Protected Cruiser	Building
Concord	Gun-boat	Building
Bennington	Gun-boat	Building
Vesuvius	Dynamite Cruiser	Ready for Trial
Torpedo Boat	Torpedo Boat	Building
Cruiser No. 6	Protected Cruiser	Building
Cruisers No. 7 & 8	Protected Cruiser	Building
Cruisers No. 9, 10 & 11	Protected Cruiser	Building
Practice Vessel	Practice Vessel	Building

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Appendix C

Progress in Naval Construction during Harrison's Administration, 1889-1893.

Vessels added during Harrison's Administration

Name of Vessel	Date of Commission
Chicago	April 17, 1889
Yorktown	April 23, 1889
Petrel	December 10, 1889
Charleston	December 26, 1889
Baltimore	January 7, 1890
Cushing	April 22, 1890
Vesuvius	June 7, 1890
Philadelphia	July 28, 1890
San Francisco	November 15, 1890
Newark	February 2, 1891
Concord	February 14, 1891
Bennington	June 20, 1891
Miantonomah	October 27, 1891
Bancroft	December 20, 1892
Machias	January 10, 1893
Monterey	January 10, 1893
New York	January 31, 1893
Detroit	January 31, 1893
Montgomery	February 28, 1893

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Vessels under Construction at the close of Harrison's Administration

Name of Vessel	Displacement
Oregon	10,200
Indiana	10,200
Massachusetts	10,200
Columbia	7,350
Minneapolis	7,350
Maine	6,648
Texas	6,300
Puritan	6,060
Olympia	5,500
Amphitrite	3,990
Monadnock	3,990
Terror	3,990
Cincinnati	3,183
Raleigh	3,183
Ram	2,183
Marblehead	2,000
Castine	1,050
Torpedo Boat No. 2	120

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Appendix D

Progress in Naval Construction during Cleveland's Second Administration, 1893-1897

Vessels Placed in Commission March 4, 1893- March 4, 1897

Name	Type	Displacement	Date of First Commission
Indiana	Seagoing coastline battleship	10,288	November 20, 1895
Massachusetts	Seagoing coastline battleship	10,288	June 10, 1896
Oregon	Seagoing coastline battleship	10,288	July 15, 1896
Maine	2nd class battleship	6,682	September 17, 1895
Texas	2nd class battleship	6,315	August 15, 1895
New York	Armored cruiser	8,200	August 1, 1893
Brooklyn	Armored cruiser	9,271	December 1, 1896
Amphitrite	Coast-defense monitor	3,990	April 23, 1895
Monadnock	Coast-defense monitor	3,990	February 20, 1896
Terror	Coast-defense monitor	3,990	April 15, 1896
Katsbdin	Armored ram	2,155	February 20, 1896
Cincinnati	Protected cruiser	3,213	June 16, 1894

Name	Type	Displacement	Date of First Commission
Raleigh	Protected cruiser	3,213	April 17, 1894
Columbia	Protected cruiser	7,375	April 23, 1894
Minneapolis	Protected cruiser	7,375	December 13, 1894
Olympia	Protected cruiser	5,870	February 5, 1895
Detroit	Cruiser	2,089	July 20, 1893
Marblehead	Cruiser	2,089	April 2, 1894
Montgomery	Cruiser	2,089	June 21, 1894
Castine	Gunboat	1,177	October 22, 1899
Machias	Gunboat	1,177	July 20, 1893
Puritan	Coast-defense monitor	6,060	December 10, 1896

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Vessels under Construction at close of Cleveland's Second Administration

Name	Percentage of Completion	Probable Date of Completion
Iowa	77	May, 1897
Kearsarge	12	January, 1899
Kentucky	12	January, 1899
Nashville	89	March 1, 1897
Wilmington	90	March 1, 1897
Helena	89	March 1, 1897
Annapolis	60	February 20, 1897
Vicksburg	84	April 15, 1897
Newport	84	April 15, 1897
Princeton	55	June 15, 1897
Wheeling	60	February 26, 1897
Marietta	60	February 26, 1897
Torpedo Boats No. 3	74	February 1, 1897
No. 4	68	February 1, 1897
No. 5	65	February 20, 1897
No. 6	95	January 1, 1897
No. 7	50	April 4, 1897
No. 8	60	June 20, 1897
Submarine Torpedo Boat	55	
Steam Tug No. 5	64	December 31, 1896

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