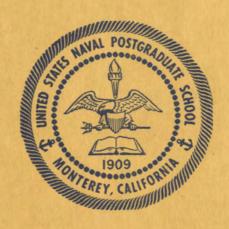
# UNITED STATES NAVAL POSTGRADUATE SCHOOL MONTEREY, CALIFORNIA



# DEDICATION OF BUILDINGS

Held on 31 May 1956

ON PONTONIA ON

# Dedication

of the buildings of the

## UNITED STATES NAVAL POSTGRADUATE SCHOOL

Monterey, California

Rear Admiral Earl E. Stone, United States Navy, Superintendent



### PRINCIPAL ADDRESS:

The Honorable Charles S. Thomas, Secretary of the Navy

### BUILDING DEDICATIONS:

BULLARD HALL \_\_

\_\_\_\_\_ Admiral Raymond A. Spruance,

Admiral Richmond K. Turner, United States Navy (Retired)
Vice Admiral T. G. W. Settle, United States Navy
et Admiral Chester W. Nimitz, United States Navy
Doctor Clinton C. Bramble, rmer Professor of Mathematics
ice Admiral Robert W. Hayler, United States Navy (Retired)
King Hall Spanagel Hall
Bullard Hall
Halligan Hall
Root Hall
Herrmann Hall



Rear Admiral William Hannum Grubb Bullard United States Navy (Deceased)

### BULLARD HALL

BULLARD HALL is named in honor of the late Rear Admiral WILLIAM HANNUM GRUBB BULLARD, United States Navy, one of the pioneers in this country and an international authority on the promotion of radio communication. He contributed materially to the Navy's educational program through organizing the Electrical Engineering Department at the Naval Academy about 1907 and through authorship of the excellent textbooks which, with successive revisions, formed the basis of that course for some three decades. BULLARD HALL is a modern laboratory building, housing the laboratory and shop facilities of the Department of Electrical Engineering.

William H. G. BULLARD was born in Media, Pennsylvania, on December 6, 1866, and entered the Naval Academy from that state in 1882. He graduated in 1886 and, as was then required, served two years at sea before being commissioned Ensign. There followed a succession of normal duty assignment rotation until the outbreak of the Spanish-American War found him serving in the USS COLUMBIA, convoying General Nelson A. Miles and his troops to Puerto Rico and transporting troops to Guanica.

He completed a course of instruction on Torpedoes in 1900, and in January 1903 reported to the Naval Academy for his third tour there. During this tour as instructor in electricity, under the Department of Physics and Chemistry, he wrote the Naval Electrician's Text and Handbook in 1904. This book proved so useful that it was re-issued in several editions and used for years at the Naval Academy.

He next went as Navigator to the Cruiser GALVESTON upon her commissioning in 1905, and shortly thereafter transferred to the new MAINE, Flagship of the Atlantic Fleet, as Navigator and later Executive Officer. In August 1907 he again reported to the Naval Academy to organize and head the Department of Electrical Engineering, newly created in recognition of the growing importance of this field to the Navy. Having firmly established the Department, he was detached in June 1911 to command the Minelayer SAN FRANCISCO.

In 1912, the then Captain BULLARD was appointed Superintendent of the United States Naval Radio Service. In this capacity, he made an extensive survey of the use of radio in several countries of Europe, and in 1913 was a delegate to the International Safety at Sea Conference in London. Following this, he took charge of the Tuckerton, New Jersey, Radio Station, and was senior member of the Board on Organization of Radio Service, both initially and when it reconvened in 1916.

During World War I, he commanded the battleship ARKANSAS, first in the ATLANTIC FLEET and later as a unit of Admiral Hugh Rodman's SIXTH BATTLE SQUADRON of the GRAND FLEET. Advanced to the rank of Rear Admiral, he commanded the U. S. Naval Base at Malta, and later commanded the U. S. Naval Forces in the Eastern Mediterranean, based at Corfu. During the latter tour, he was a member of the Inter-Allied Armistice Commission which effected, with notable tact and forbearance, the surrender of the Austro-Hungarian fleet to the United States. For these services he was awarded the U. S. Distinguished Service Medal and received the "Commander, Legion D'Honneur" and the "Order of the Knights of Polonia Restituta" from the French and Polish governments, respectively.

After eight months as a member of the Inter-Allied Conference on Radio he served from 1919 to 1921 as Director of Communications in the Navy Department. In this capacity he prevented "by persistent and convincing presentation of his views" the sale to foreign interests of patent rights in the Alexanderson alternator, then essential to radio communications progress. He has, with some justification, been called the "Father of American Radio". There is no doubt that his extraordinary knowledge of the subject, together with his firm stand for his country's rights, helped preserve to the United States her prestige in this field.

Rear Admiral BULLARD then returned to sea as Commander YANGTZE PATROL FORCE until he was retired from active duty on September 11, 1922. While retired, he counseled the formation of an independent company which developed into the Radio Corporation of America. On March 2, 1927 he was appointed by President Coolidge to a six-year term as Chairman of the National Radio Commission, serving in this capacity until his death in Washington on November 24th of that same year.



Rear Admiral Ernest Edward Herrmann United States Navy (Deceased)

### HERRMANN HALL

HERRMANN HALL is named in honor of Rear Admiral ERNEST EDWARD HERRMANN, United States Navy, deceased, who as Superintendent from 1950 to 1952 so effectively supervised the movement of the Naval Postgraduate School from Annapolis and its establishment with the General Line School as an integrated command in the present Monterey facilities. This building, formerly the world-famous Del Monte Hotel, houses the principal administrative offices of the Postgraduate School command as well as living accommodations for the large number of bachelor officers here. At present, the General Line School utilizes one complete wing for administrative and instruction purposes, pending the expected construction of its own especially designed building.

Ernest E. Herrmann was born July 17, 1896 in New York City and attended public schools there. He was appointed to the Naval Academy from New York, entering with the Class of 1919 on July 7, 1915. Because of World War I, he was graduated one year early and commissioned Ensign on June 6, 1918. Joining the armored cruiser SOUTH DAKOTA, he immediately saw combat service escorting troop convoys to France.

After another brief tour in the armored cruiser, HUNTINGTON, he was ordered to the destroyer, WORDEN, where he served in several capacities, including Engineer and Executive Officer. Ordered to duty in connection with fitting out of the new destroyer HOPKINS in 1921, he progressed through the duties of Engineer, Gunnery, Navigator and Executive Officer to Commanding Officer before he was detached in 1924.

There followed his first tour as an Ordnance and Gunnery instructor at the Naval Academy, during which time he wrote the textbook Exterior Ballistics, 1926 which was in use there for many years. After a sea duty tour during which he participated in operations in the Yangtze Campaign as Assistant Gunnery Officer of the armored cruiser PITTSBURGH and as Communications Officer for the Commander in Chief, U. S. Asiatic Fleet, he returned to the Naval Academy in June 1929, again as instructor in Ordnance and Gunnery. While in this capacity he wrote Notes on Fire Control, which likewise served as a textbook at the Naval Academy for many years.

From June 1930 until June 1934 he served as Air Defense Officer and later Assistant Gunnery Officer of the battleship WEST VIRGINIA and for each of the three years of this tour was awarded a Letter of Commendation for direct contribution toward his ship's winning the annual Gunnery Trophy and Battle Efficiency Pennant, a truly unusual feat. In 1934 he again returned to the Naval Academy for a three-year tour as instructor, later Senior Instructor, in Ordnance and Gunnery. Going to sea again in 1937, he served successively as Gunnery Officer of the WEST VIRGINIA, Executive Officer of the destroyer tender, WHITNEY and as Gunnery Officer on the staff of Admiral J. O. Richardson, Commander in Chief, United States Fleet.

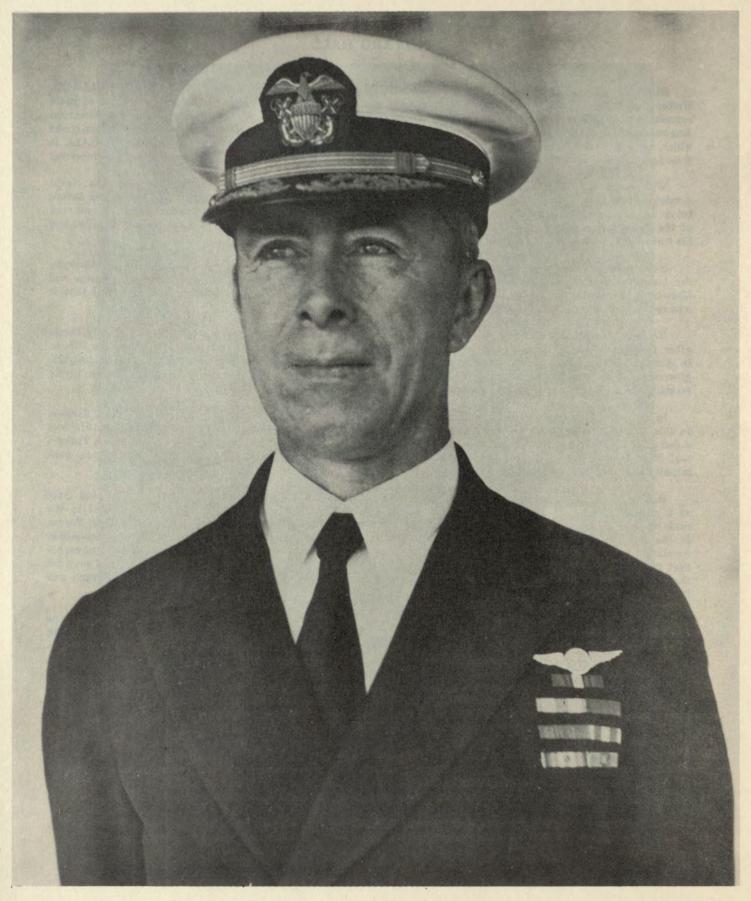
The imminence and outbreak of World War II found the then Captain Herrmann in the very responsible post of Chief Planner and Coordinator for all anti-aircraft matters for the Bureau of Ordnance. His professionally brilliant energetic, and fore-sighted discharge of these responsibilities through March 1944 won him the later award of a Gold Star in lieu of a Third Legion of Merit.

When finally relieved of his responsibilities in Washington, he entered immediately into combat operations upon assuming command of the heavy cruiser, BOSTON in June 1944. Operating principally with Task Force 58 and with Admiral William F. Halsey's Third Fleet, the BOSTON was in the thick of the fight through the Mariannas, Carolines, Philippines, and Iwo Jima campaigns, including Halsey's hit-and-run strikes on the shrinking Japanese Empire itself. These operations won for the Captain of the BOSTON the award of the Legion of Merit and a Gold Star in lieu of a Second Legion of Merit, both with the Combat V.

Bringing his ship back to the United States at the end of March 1945 for a badly needed overhaul, Captain Herrmann was relieved three months later and reported for duty as Assistant Chief of Logistic Plans in the Office of the Chief of Naval Operations. After having stepped up to become Chief of Logistic Plans, he was appointed Rear Admiral in November 1946 and a few months later was appointed head of the Naval Section of the U. S. Survey Mission on Aid to Turkey.

In August 1947, Rear Admiral Herrmann assumed Command of Cruiser Division THREE, and of Task Force SEVENTY-ONE, which included all of our combatant ships on the China Station. After a brief return to the United States to assume command of Cruiser Division THIRTEEN, he again returned to the China Station and resumed command of Task Force SEVENTY-ONE, now designated the Western Pacific Striking Force until he was relieved in 1949.

Following a brief assignment by the Chief of Naval Operations to survey several Naval Districts, Rear Admiral Herrmann assumed duty in June 1950 as Superintendent of the U. S. Naval Postgraduate School at Annapolis, Md. He served in this capacity, where he was intimately involved in the completion and implementation of plans for the erection of new facilities and the moving of this institution to Monterey, California, until his death in November 1952 after the move had been smoothly and successfully completed in February of that year.



Rear Admiral John Halligan United States Navy (Deceased)

### HALLIGAN HALL

HALLIGAN HALL is named in honor of Rear Admiral JOHN HALLIGAN, United States Navy, deceased, a distinguished officer who as Head of the Postgraduate Department of the Naval Academy from 1915 to 1917 was most instrumental in advancing the Navy's program of postgraduate education. The building is a most modern laboratory type which houses the extensive laboratory, testing and shop facilities of both the Aeronautical engineering and the Mechanical Engineering Departments of the Engineering School.

John Halligan was born in South Boston, Massachusetts, on May 14th, 1876. He attended local schools and was appointed to the United States Naval Academy as a Naval Cadet in 1894. He graduated as the Head of his Class in 1898 and then served two years at sea before being commissioned Ensign, as was then required by law. Shortly after joining the Cruiser BROOKLYN, Flagship of Commodore Winfield Scott Schley, he participated in the Battle of Santiago Bay while still a Naval Cadet and was awarded the Special Meritorious Medal for his outstanding service in that action. After the war, he served in the normal succession of sea and shore duty assignments, completing two years as Navigator of the Battleship WYOMING in 1915.

He then reported, as a commander, to the Naval Academy where he was assigned as Head of the Postgraduate Department, which was then operating in Isherwood Hall with a faculty of three professors teaching small groups of Marine Engineering students. Under his leadership, the faculty was enlarged and the scope of instruction was broadened to include "warm-up" courses in Ordnance, Naval Construction, and Civil Engineering; and larger groups of Marine Engineering students were enrolled. However, our entry into World War I brought a suspension of these activities; the faculty was assigned to other Naval Academy departments and Commander Halligan went to sea as Aide to the Commander, Patrol Force, Atlantic Fleet.

His next assignment as Chief of Staff to the Commander, U. S. Naval Forces in France, brought him the award of the Distinguished Service Medal for "exceptionally meritorius service in a duty of great responsibility", as well as the decoration of "Officer of the Legion of Honor" from the government of France. He assumed command of the Battleship OHIO in May 1919, and during this tour enjoyed the unique experience of commanding two battleships simultaneously. This occurred when, in the course of experimental work, the battleship IOWA was operated under full radio control by the OHIO. In November 1920 he was assigned duty in charge of the Naval Experiment Station at Annapolis for three years followed by a tour in command of the newly constructed Light Cruiser DETROIT.

In June 1925 he was appointed Chief of the Bureau of Engineering in the Navy Department with the rank of Rear Admiral and with the traditional title of Engineering in Chief of the Navy. Following this assignment and a period of training at the Naval Air Station, Pensacola, Florida, he was designated a Naval Aviation Observer in July 1928 and shortly thereafter assumed command of the Aircraft Carrier SARATOGA. In April 1929 he reported for duty as Commander Aircraft Squadrons, Scouting Fleet, holding this post until October 1930 when he became Assistant Chief of Naval Operations. After being relieved of this job, Rear Admiral Halligan attended the Naval War College, Newport, and then reported for duty as Commander Aircraft Squadrons, Scouting Force, with his flag in the Aircraft Carrier LEXINGTON. Incident to a reorganization of Naval Aeronautical Forces in April of 1933, he became Commander Aircraft, Battle Force, and Commander Aircraft, U. S. Fleet, with his flag in the SARATOGA.

Admiral Halligan returned ashore as Commandant of the Thirteenth Naval District at Puget Sound, Bremerton, Washington, in July 1934 and served in that capacity until his death in December of the same year. He was buried with full military honors in the Naval Academy Cemetary at Annapolis on December 18, 1934. A destroyer the USS HALLIGAN (DD-584), named in his honor, was launched on March 19, 1943 and christened by his widow, Mrs. Katrina Loomis Halligan, who now resides at Annapolis, Maryland.



Fleet Admiral Ernest Joseph King United States Navy

### KING HALL

KING HALL is named in honor of Fleet Admiral ERNEST JOSEPH KING, United States Navy, who as Head of the Postgraduate Department during the resumption of operations after World War I built up the nucleus of the present civilian faculty and initiated the greatly diversified educational program which characterizes the School today. This building is the Lecture Hall and Student Assembly Building, functionally designed to serve these purposes in a most admirable fashion for up to twelve hundred persons. Not only is it of highly efficient accoustical design but it has the most modern audio and visual projection equipment installed.

Ernest Joseph KING was born in Lorain, Ohio, on November 23, 1878. Attending public schools there, he was appointed to the Naval Academy in 1897. He made his first summer cruise as a naval cadet in the USS SAN FRANCISCO, Flagship of the Northern Patrol Squadron, under wartime (Spanish-American) conditions. After graduation in 1901 he served successively in the Gunboat EAGLE, surveying Cienfuegos, Cuba; the Cruiser CIN-CINNATI, in the Asiatic Fleet during the Russo-Japanese War; the ILLINOIS, flagship of the European Squadron; then back to the U. S. Atlantic Fleet as Engineer Officer of the battleship ALABAMA in 1905. Coming ashore to the Naval Academy, he served two years as Ordnance and Gunnery instructor and one year on the Executive Staff there before returning to sea as Aide to the Commander Second Division, Atlantic Fleet in the Flagship MINNESOTA in 1909. He then reported to the battleship NEW HAMPSHIRE as Engineer Officer until June 1911 when he began a one-year tour as Aide and Flag Secretary to the Commander in Chief, U. S. Atlantic Fleet in the CONNECTICUT.

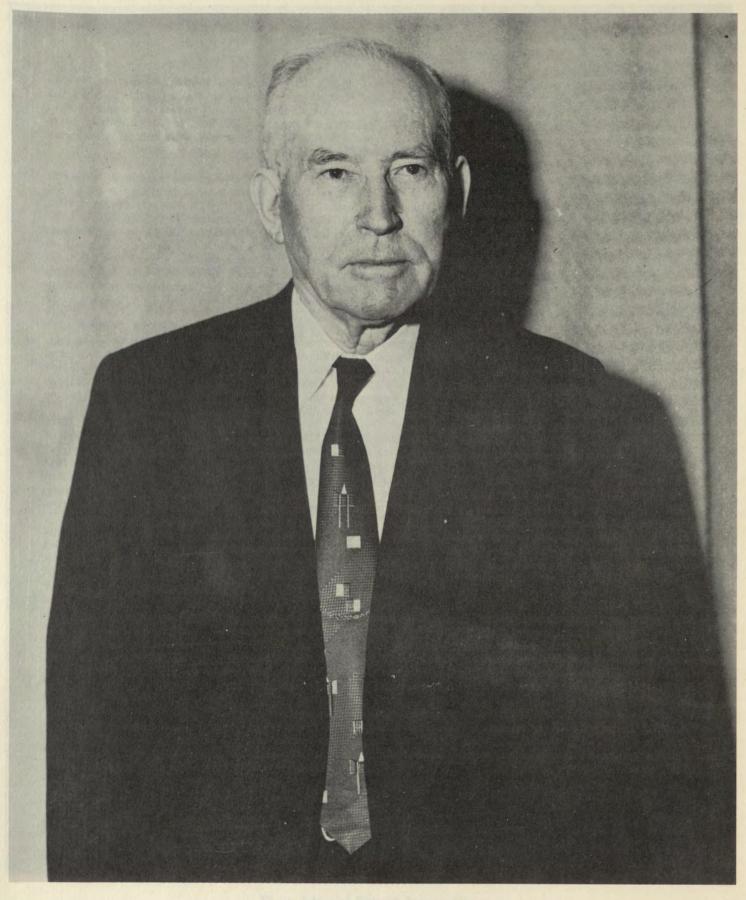
In June 1912, he reported to the Naval Engineering Experiment Station at Annapolis for a two-year tour, following which he took his first command, the destroyer, TERRY. After a few months he transferred to command the Destroyer CASSIN, with additional duty as Aide to the Commander, Torpedo Flotilla, U. S. Atlantic Fleet, and in June assumed command of the Sixth Division of that Flotilla. Having reported at the end of 1915 as Aide and Staff Engineer to Admiral H. T. Mayo, he served in this capacity throughout the World War I period and was awarded the Navy Cross for distinguished service in the line of his profession as Chief of Staff.

In May 1919 he reported to the Naval Academy as Head of the Postgraduate Department, facing the task of rebuilding and expanding the scope of that institution after its suspension for World War I. Following a year in command of the supply ship, BRIDGE, he reported to the Staff of the Commander, Submarine Flotillas in 1922 and shortly therafter assumed command of Submarine Division Eleven, later also commanding Submarine Division Three as additional duty. During his subsequent three-year tour in command of the Submarine Base, New London, he was awarded the Distinguished Service Medal for meritorious service in charge of the salvaging of the sunken submarine, S-51.

The then Captain KING assumed command of the Aircraft Tender WRIGHT in July 1926, interrupting this tour to undergo flight training at Pensacola, as the rapidly expanding Naval Aviation arm needed senior officers. He was designated Naval Aviator No. 3368 in May 1927. Shortly after resuming command of the WRIGHT, he was again detached for temporary duty in charge of salvage operations on the sunken submarine S-4 in December 1927, for which service he received the Gold Star in lieu of a second Distinguished Service Medal. After a brief tour as Commander Aircraft Squadrons, Scouting Fleet, he served as Assistant Chief of the Bureau of Aeronautics and then in command of the Naval Air Station, Norfolk, Virginia. There followed two years in command of the Aircraft Carrier LEXINGTON and the Senior Course at the Naval War College, after which he assumed duty as Chief of the Bureau of Aeronautics with the rank of Rear Admiral, in April 1933.

The next five years saw Admiral King move through a succession of important Fleet commands, broken only by a short tour on the General Board, until he became Commander in Chief, U. S. Atlantic Fleet with the rank of Admiral in February 1941. After the outbreak of World War II, he was appointed Commander in Chief, United States Fleet, and a few months later assumed the duties of Chief of Naval Operations as well. Shortly after the war, the President by Executive Order combined the functions of these two offices under the Chief of Naval Operations in the person of Fleet Admiral KING, this new superior rank having been created by the Congress as special recognition for four officers of the Navy. Awarded the Gold Star in lieu of a third Distinguished Service Medal for his wartime direction, he was relieved of Chief of Naval Operations by Fleet Admiral Chester Nimitz on December 15, 1945 and has since served as an advisor to the Secretary of the Navy.

Many foreign decorations, as well as Academic and Civic honors beyond convenient enumeration, have been bestowed on Fleet Admiral KING in grateful recognition of his superlative leadership of all our naval forces throughout World War II.



Senior Professor Ralph Eugene Root (Emeritus)

### ROOT HALL

ROOT HALL is named in honor of RALPH EUGENE ROOT, PhD, Senior Professor, United States Navy, Retired. It houses the classrooms and office spaces of the Mathematics, Aeronautics, Aerology and Mechanical Engineering Departments as well as some laboratories and curricular offices. Presently, it also accommodates the Technical Library pending the erection of a proposed new building for that purpose.

Dr. ROOT was born July 18, 1879 on a farm in Grundy County, Missouri, the third of seven children of Lewis F. and Sarah Eleanor (Pollock) Root. He started his education in the rural schools near Akron, Plymouth County, Iowa, where his family moved in 1883. He attended Morningside College where he was graduated with a Bachelor of Science degree in 1905. His higher education included the earning of the Master of Science degree from the University of Iowa in 1909 and Doctor of Philosophy from the University of Chicago in 1911. He was subsequently awarded an honorary degree of Doctor of Science by Morningside College in 1942.

Dr. ROOT started his teaching career in the Forest City, Iowa, High School in 1905, moving on the following year to become Instructor in Mathematics at the University of Iowa while he studied toward his own Master of Science degree. In 1910 he was appointed a Teaching Fellow at the University of Chicago, while he studied for his Doctorate of Philosophy, awarded in 1911. After two years as Instructor in Mathematics at the University, Dr. Root became Instructor in Mathematics and Mechanics at the United States Naval Academy in 1913.

At this time, the Postgraduate Department of the Naval Academy was beginning to take form under Lieutenant Commander J. P. Morton, U. S. Navy. Dr. Root's inclinations and talents naturally lead him into involvement with this pioneering activity. Such a break with the old and setting up of new precedents in any governmental organzation is not work for the timid. Dr. Root and another teacher named Doggett were hired on a tenuous basis in 1914, being paid from funds provided for lectures. They, augmented by a third teacher who had Civil Service status at the Naval Engineering Experimental Station, comprised the teaching staff for the two small groups of officer students in Marine Engineering, using laboratory facilities of the Naval Academy and the Engineering Experimental Station.

In the following year 1915, regular appointments to the faculty were authorized. Under Rear Admiral (then Commander) John Halligan, U. S. Navy, three Professors (including Dr. Root) and three Instructors expanded their activities to giving "warm-up" courses to small groups in Ordnance, Naval Construction, and Civil Engineering as well as the larger group in Marine Engineering.

The Postgraduate School was interrupted by World War I in April 1917, the teachers being given assignments in the Academic Departments of the Naval Academy and only a skeleton organization maintained. After the war, the Postgraduate School resumed operations under the leadership of Fleet Admiral (then Captain) Ernest J. King, U. S. Navy, with ample quarters in the old Marine Barracks (named HALLIGAN HALL) and with Professors Root and Doggett as the nucleus around which a much larger civilian faculty was built up to accommodate a larger student body and a more diversified educational program.

The limited faculty during those earlier, formative years of the School, gave the professors an unusual scope of opportunities and responsibilities which Professor Root indulged to the fullest. Professors of Mathematics found themselves teaching mechanics and applied mechanics with applications to ordnance, strength of materials, structures, and later to radio, are on autics, and meteorology.

Professor Root was the guiding spirit of this versatile faculty until his retirement in 1946. Before retiring, Professor Root had a most active hand in furthering the "coming of age" of the institution to whose development he had contributed so richly. Working with Rear Admiral Spanagel, he laid much of the foundation for the authorization of the School to grant Bachelor's, Masters and Doctors degrees, and for the reorganization of the faculty under a civilian Dean. His contributions are many, among the most important being Iterated Limits in General Analysis, (Doctors Dissertation), American Journal of Mathematics, 1914; Limits In Terms of Order, Transactions, American Mathematical Society, 1914; The Mathematics Of Engineering, Williams and Wilkins, 1927 and Dynamics Of Engine And Shaft, Wiley, 1933.



Rear Admiral Herman Adolf Spanagel United States Navy (Retired)

### SPANAGEL HALL

SPANAGEL HALL is named in honor of Rear Admiral HERMAN A. SPANAGEL, United States Navy, Retired. This distinguished officer, as Superintendent of the U. S. Naval Postgraduate School from June, 1944, through June, 1950, made outstanding contributions to the Navy's postgraduate educational program and laid the groundwork for the present establishment in Monterey. It is a modern functional educational building of five full floors and a specially designed superstructure for the operation of electronic and aerological equipment. It includes the laboratories, classrooms and offices principally of the Physics, Metallurgy and Chemistry, Electrical Engineering, and Engineering Electronics Departments. The Director of the Engineering School and two curricular officers also have administrative offices in the building.

Herman Adolf SPANAGEL was born in Canton, Ohio, on December 16, 1891. He was appointed to the U. S. Naval Academy in 1910, being graduated and commissioned Ensign on June 6, 1914. After serving in the Battleship SOUTH CAROLINA and a brief tour of duty at the Naval Training Station, Great Lakes, Illinois, he reported as Executive Officer of the destroyer WILKES at Queenstown, Ireland to see active combat service in World War I.

A few months after the Armistice, he was ordered to a course of instruction in Ordnance Engineering at the U. S. Naval Postgraduate School, followed by a postgraduate course in metallurgy at Lehigh University, Bethlehem, Pa. During the latter period he found time to play on Lehigh's Intercollegiate Championship Lacrosse team in 1920.

Progressing through an impressive succession of sea and shore duty assignments, including Gunnery Officer of Destroyer Squadron Twelve, Command of the destroyer BRECKENRIDGE, Executive Officer of the cruiser CONCORD, Design Officer at the Naval Gun Factory, and Proof Officer at the Naval Proving Ground, the then Captain Spanagel was Officer in Charge of the Planning and Estimating Division of the Naval Gun Factory during the tremendous expansion and acceleration of activity that accompanied the outbreak of World War II

In September, 1942, he assumed command of the cruiser NASHVILLE which was then in the Aleutian Islands Area but shortly thereafter proceeded to join our hard-pressed forces in the South Pacific. While commanding this ship he was almost continually in a combat situation from November, 1942, until April, 1944, as a part of the forces that were breaking up and turning back the Japanese invasion of the South Pacific. During parts of this period he also acted as Commander Support Forces and as Commander Cruiser Division Fifteen in combat operations.

He was awarded the Legion of Merit, with Combat "V", for "exceptionally meritorious service as Commanding Officer of the NASHVILLE during action against enemy Japanese forces in the Solomon Islands Area." He was further awarded a Gold Star in lieu of a Second Legion of Merit with Combat "V" for "outstanding services as Commanding Officer of the NASHVILLE and as Acting Commander Cruiser Division Fifteen in action against the enemy, supporting the landings at Cape Gloucester, New Britain Island."

Returning to the United States in April, 1944, he assumed duty as Head of the U. S. Naval Postgraduate School, and three years later was designated the first Superintendent of the School, in which capacity he served until June 30, 1950. During this period, he initiated and supported legislative action which culminated in the authorization of the Naval Postgraduate School to award degrees of Master of Science and Doctor of Science, in the establishment of the present school at Monterey, and other legislation for the betterment of the Navy's postgraduate education system. For his long service during his period of expansion of postgraduate curricula, he received a Letter of Commendation from the Secretary of the Navy.

On June 30, 1949, with still a year to serve as Superintendent of the Naval Postgraduate School, he was placed on the retired list with the rank of Rear Admiral. A long and illustrious career of service was brought to a close when Rear Admiral SPANAGEL was relieved of active duty on September 11, 1950.

