



Ordnance Corps Hall of Fame

1969 Inductees



Major William S. Beebe

Major William S. Beebe was born in New York on February 14, 1841 and graduated from the United States Military Academy in 1863 as a second lieutenant of Ordnance. On August 23, 1864 he became a brevet major. Major Beebe distinguished himself on several occasions during the Civil War by his courage and daring. He was awarded the Medal of Honor on June 30, 1897 for gallantry at Cane River Crossing, Louisiana, where on April 23, 1864 he led a successful assault on a highly fortified position. In 1870, he again distinguished himself at an arsenal laboratory when, after an explosion, he and a few assistants rolled 20 barrels of powder and a number of loaded shells from the building. Major Beebe resigned his commission in 1874, but became a Major of Volunteers in 1898. Major Beebe died of yellow fever while on active duty in Cuba on October 12, 1898.



Colonel Hiram Berdan

Colonel Hiram Berdan was born in New York in 1823 (?) and became a mechanical engineer. Colonel Berdan was engaged in service with the Union Forces during the Civil War and was cited for gallant and meritorious service at the Battle of Gettysburg. Colonel Berdan was recognized as the nation's leading marksman from 1846-1861. He invented a method of low-cost brass drawing for cartridge cases and a cartridge of his own design had a bump in the bottom of its primer pocket against which the primer was struck. The primer was much like the old-fashioned percussion cap, having no internal anvil. The Berdan primer was the first generally successful and widely used primer in the United States. It is still used in small arms ammunition over most parts of the world. Colonel Berdan resigned his commission on June 2, 1864 and devoted his time toward perfecting a system to convert muzzle-loading rifles to breech loaders. In 1865, he received brevets as Brigadier General and Major General for his Civil War service. Colonel Berdan died on March 31 1893.



Colonel George Bomford

Colonel George Bomford was born in 1780 and graduated from the United States Military Academy in 1805. During the period of 1821-32, when Ordnance missions were placed under the Artillery, Colonel Bomford signed correspondence as “Brevet Colonel on Ordnance Service.” As Chief of Ordnance from 1832 to 1848, he recognized the need for, and fought successfully to obtain, a permanent Ordnance staff in an independent Ordnance Department. He was known as the “father” of the Ordnance Department, serving in it from 1812 to 1848. Being well informed in the manufacture of ordnance materiel, Colonel Bomford played an active role in determining ordnance designs and specifications. He designed the Columbiad, the Army’s first gun capable of firing a heavy projectile. Colonel Bomford wrote the first set of regulations for the Ordnance Department and demonstrated exceptional ability for businesslike administration. He always insisted that the main purpose of the Ordnance Department was to make provisions for the future. Colonel Bomford died, while Chief of Ordnance, on March 25, 1848.



Brigadier General Adelbert R. Buffington

Brigadier General Adlebert R. Buffington was born on November 22, 1837. He graduated from the United States Military Academy in 1861 and was assigned to the Ordnance Department. While assigned in 1872 as Assistant Superintendent of Armament, Southern Seacoast Fortifications, he devised a design for a depressing carriage for seacoast cannons. From this design evolved the disappearing seacoast gun carriage. In 1888, he contributed significantly to the design of a disappearing gun carriage with a sophisticated recoil mechanism. This advanced gun design became the standard carriage for all seacoast cannons until after World War I. General Buffington also invented the niter process for bluing minor parts of small guns and designed components for the 3.2-inch field gun. As Chief of Ordnance, from April 5, 1899 to November 22, 1901, he brought about two changes of far-reaching consequence. The first was the use of nitrocellulose instead of nitroglycerine powder. The second was the use of delayed explosions to provide the improved effectiveness of explosion after target penetration. It is worthy to note that he was the first to propose a semiautomatic rifle design. General Buffington retired on November 22, 1901 and died on July 10, 1922.



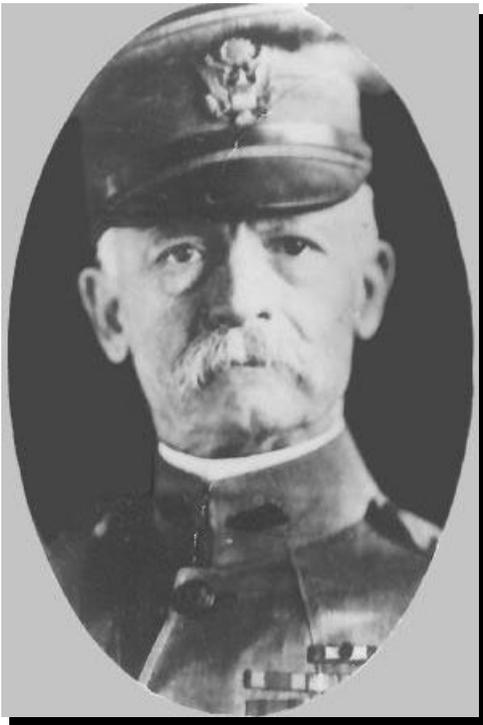
Major General James H. Burns

Major General James H. Burns was born in Pawling, New York on September 12, 1885 and graduated from the United States Military Academy in 1904. He is credited with the idea of industrial mobilization after World War I. He personally convinced the Under Secretary and the Secretary of War to back the establishment of the Army Industrial College (1924) where officers study the problems of industrial mobilization. General Burns was instrumental in inaugurating and formulating the great Ordnance production programs of World War II. As the executive officer to the Chairman of the Munitions Assignments Board, he was involved with the formulation of Ordnance policies and programs at the highest level. President Franklin D. Roosevelt nominated him to be Chief of Ordnance on April 1, 1942, but he declined the nomination because the Chairman felt that an urgent necessity existed for General Burns to continue his work with the Munitions Assignment Board. General Burns retired in 1944 and died on November 27, 1972.



Lieutenant Colonel James H. Burton

Lieutenant Colonel James H. Burton was born on August 17, 1823 and learned the machinist trade in Baltimore, Maryland. He obtained a job at Harpers Ferry Armory, where within 10 years he became Master Armorer. While holding the earlier position of Assistant Master Armorer in 1849, he perfected the American version of the famous Minie ball. His improvement changed the design so that the iron cup in the base cavity could be eliminated, thus making the bullet easier and cheaper to manufacture. The United States adopted Burton's bullet and introduced a series of arms designed to fire it during 1855. His bullet was the principal small arms projectile of the Civil War. When the Civil War broke out, Burton accepted a commission as a lieutenant colonel of Ordnance in the Confederate Army. In this position, he expedited the production of arms, undertook a mission to Europe, and designed a projectile for rifled cannon. Lieutenant Colonel Burton died on October 18, 1894 at Winchester, Virginia.



Major General William Crozier

Major General William Crozier was born in 1855 and graduated first in his class at the United States Military Academy in 1876. Between 1885 and 1906, he wrote several studies in the field of Ordnance engineering and was Chief of Ordnance from November 1901 until December 1917. During his more than 40 years of service, he exerted a progressive influence on the fighting equipment of the Army. He was responsible for establishing a course of instruction at Sandy Hook Proving Ground, New Jersey, for the design and construction of ordnance. His course laid the foundation for the Ordnance school system. He recognized the interdependence of the Ordnance Department with industry and was an advocate of industrial preparedness long before the term had acquired any real meaning to the general public. As Chief of Ordnance, General Crozier organized the Department for emergency service in the field well before the United States entered World War I. During World War I, President Wilson appointed General Crozier a member of the Supreme War Council. With Sir Winston Churchill at Versailles, he developed the basis for the complete and effective pooling of all ordnance equipment for the Allied armies. General Crozier died on November 10, 1942.



Mr. Harry Diamond

Mr. Harry Diamond was born in Russia on February 12, 1900 and immigrated to the United States as a child. Mr. Diamond enlisted in the United States Army on October 14, 1918 and was honorably discharged on December 9, 1918. He graduated from Massachusetts Institute of Technology in 1922 and completed graduate work at Lehigh University in electrical engineering. He joined the National Bureau of Standards in 1927 and became Chief of the Electronics Division. Later, as Chief of the Ordnance Development Division he was assigned the task of supervising the development of proximity fuzes for nonrotating projectiles such as bombs, rockets, and mortars. It was calculated that a fuze which would explode a projectile near a plane or at some height above a target on the surface would increase lethality. Mr. Diamond, through his vast knowledge in the field of electronics, contributed greatly to the fundamental concept and design of proximity fuzes. He held 16 patents for electronics-related inventions. The Ordnance Development Division, upon transfer from the National Bureau of Standards to the Army in 1953, was named the Diamond Ordnance Fuze Laboratories in honor of Mr. Diamond. It has since been renamed the Harry Diamond Laboratories. Mr. Diamond died in 1948.



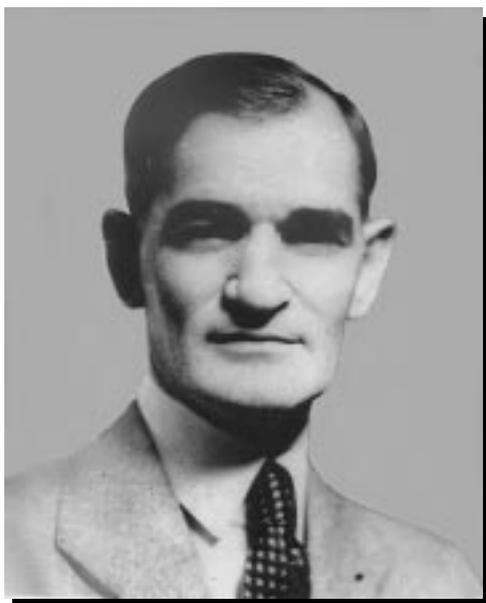
Brigadier General Tracy C. Dickson

Brigadier General Tracy C. Dickson was born on September 17, 1868 and graduated from the United States Military Academy in 1892. As Commanding Officer of Sandy Hook Proving Ground, New Jersey in 1914 and President of the Ordnance Board from April 1914 to August 1915, he achieved fame for his metallurgical developments in the field of gun construction. His research profoundly influenced the technological advancement of gun construction. He played a significant role in the fields of X-ray testing, cold working, centrifugal casting, and the development of welding. Under his direction, the development of the Watertown Arsenal Laboratory and the advancement of methods for casting guns were carried through to near perfection. The present techniques of gun manufacture are largely due to his expert guidance. General Dickson, for whom the U.S. Army Ordnance Center and School Building 3074 is named, retired on September 30, 1932 and died on May 17, 1936.



Mr. Gregory Gerdom

Mr. Gregory Gerdom was born in 1847 in Germany and came to the United States in 1857. Sometime after 1883, he went as a machinist to Watervliet Arsenal, New York. This was shortly after the Arsenal was converted to a gun factory. He worked 9 years at Watervliet Arsenal, then went to Sandy Hook Proving Ground, New Jersey, where he worked for 16 years. Mr. Gerdom was an outstanding inventor and designer of tools and materiel for Ordnance during the period 1885 through 1910. At the time when breechloading guns were in their infancy, he devised tools to facilitate the manufacture of the guns. Of many tools he designed, he patented only one: a reamer for finishing the bores of guns. He invented the split rings used with the breech mechanism in high-powered guns both here and abroad. Mr. Gerdom also invented the lanyard pull, which permits the gun to be fired from the cradle of the carriage. His other inventions included firing attachments, a retracting attachment for firing pins, a breechblock operating lever, a carrier ring, a rotary breechpiece, and a tool for boring breechloading ordnance. He had much to do with the design of a 3-inch field gun, especially with its breech mechanism. After his retirement with 25 years of service, he invented an indestructible gas check pad for high-powered guns. Mr. Gerdom died on April 16, 1914.



Doctor George C. Hale

Doctor George C. Hale was born on September 29, 1891. He received his doctorate from the University of Indiana, and after instructing at the University from 1915 to 1917, he began his career in chemistry at Picatinny Arsenal, New Jersey, as Chief of the Chemical Branch in 1929. As the chief chemist, Dr. Hale played an important part in the research and development work dealing with military explosives after World War I. He held patents on high explosives, propellants, fuze powders, and pyrotechnic compositions. He also worked on substitutes for strategic and critical materials used in ammunition and improved processes for explosives. The results of Dr. Hale's work were applied on a large scale in World War II. An example of this was EDNA (ethylenedinitramine), the first entirely United States developed high explosive. EDNA was more powerful than TNT, and it was less sensitive. Doctor Hale died on November 4, 1948 while serving as chief chemist.



Colonel Kenneth B. Harmon

Colonel Kenneth B. Harmon was born on May 13, 1886 and graduated from the United States Military Academy in 1910. He was in command of a large ordnance depot at the time the United States entered World War I. Due to his experience in supplying and maintaining ordnance materiel to troops in the field, he was selected by the Ordnance Officer of the American Expeditionary Forces to organize and take to France the first unit of ordnance maintenance personnel sent overseas. He worked with solving problems inherent in the establishment and operation of the supply and maintenance system utilized by the American Expeditionary Forces. He established a depot system, which consisted of a base ordnance depot, an intermediate depot, and later an advance depot. For his outstanding accomplishments, he was awarded the Distinguished Service Medal by General Pershing. Colonel Harmon retired from service in 1946 and died on June 19, 1967.



Staff Sergeant Benjamin C. Horton

Staff Sergeant Benjamin C. Horton was born in Texas and served in Europe during World War II. During that period Staff Sergeant Horton improvised a sight instrument illuminator for use on 60mm and 81mm mortars. The instrument was unique in that it could not be detected by the enemy during night operations. Many refinements and improvements were soon developed, including those for a wide variety of weapons. However, Sergeant Horton's work was the genesis for sight illumination and was indeed an outstanding accomplishment and great contribution to Ordnance. Staff Sergeant Horton was awarded the Legion of Merit for his great skill and ingenuity in developing this piece of equipment.



Colonel Thomas J. Kane

Colonel Thomas J. Kane was born on March 30, 1900 and attended Carnegie Institute of Technology where he accepted a Reserve commission as a second lieutenant in 1924. He began active duty in 1941 as a major, serving throughout the world during World War II. Colonel Kane was known throughout the Ordnance Corps as the organizer of the Army's bomb disposal program in World War II. He contributed significantly to its activation, organization, and implementation. Under the direction of Colonel Kane, a bomb disposal school was established at the Ordnance Training Center, Aberdeen Proving Ground, in 1941. In 1944 Colonel Kane went to England, where he formulated bomb disposal procedures, techniques, and special tools. He devised a suitable plan for the organization and administration of bomb disposal units in the field. The work performed by bomb disposal personnel proved to be immensely valuable to the war effort. Colonel Kane was the Chief Ordnance Officer of the Far Eastern Air Forces in Tokyo during 1948-49 and was Commanding Officer of Frankford Arsenal, Pennsylvania, from 1953 to 1954. During the following year, he was Commanding Officer of the Explosive Ordnance Disposal Center at Aberdeen Proving Ground. Colonel Kane retired on May 31, 1955 and died on November 12, 1965.



Doctor Robert H. Kent

Doctor Robert H. Kent was born on July 1, 1886 and graduated from Harvard in 1910. In 1953, Harvard conferred upon him the honorary degree of Doctor of Science. During 1917, Dr. Kent was a first lieutenant serving with the Office of the Chief of Ordnance in charge of ballistics work. In 1919, he continued with the Chief of Ordnance as a civilian employee. From 1922 until his retirement on July 31, 1956, he worked at Aberdeen Proving Ground at the Ballistics Research Laboratories. Doctor Kent was one of the world's outstanding ballisticians and wrote approximately 200 publications on the subject. He developed the Kent battery, a device to demonstrate how projectiles fly with different rates of spin. Dr. Kent was an early proponent of the small caliber, high-velocity rifle bullet. He was a pioneer in the science of ballistics measurements and subsequently achieved fame in developing the theory governing the flight of rockets and guided missiles. His efforts and his leadership of other scientists made possible the swift development of a number of new weapons and great improvements in other weapons of importance to the Armed Forces. Dr. Kent died in February 1971.



Doctor William K. Kroeger

Doctor William K. Kroeger was born on June 6, 1906 and graduated in 1937 from the University of Pittsburgh with a doctorate in physics. He was employed at Frankford Arsenal, Pennsylvania, from January 1940 to July 1966, where he was Director of the Institute for Research. In June 1943, at the direction of the Chief of Ordnance, Dr. Kroeger worked on a project to develop a recoilless rifle. Along with Mr. C. W. Musser, he worked out the fundamental theory for such a weapon and experiments were immediately begun with a simple, smoothbore gun, embracing a complete study of its interior and exterior ballistics. In September 1943, the design of the actual weapon was started. By the following year, a demonstration of the 57mm and 75mm recoilless rifles was conducted at Aberdeen Proving Ground. Dr. Kroeger also pioneered the development of personnel escape systems for military aircraft, specifically the pilot ejection seat. Dr. Kroeger died on July 23, 1966.



Captain Henry Metcalfe

Captain Henry Metcalfe was born on October 29, 1847 and graduated from the United States Military Academy in 1868 with a commission in Ordnance. He was the Executive Ordnance Assistant at Springfield Armory where, in 1873, he invented the first detachable magazine for small arms. As an instructor at West Point in Ordnance and Gunnery in 1886, he wrote a book on the subject which brought the whole course up to date. This task, with the wide research and mathematical calculations it necessitated, had a recognized effect in reforming the Military Academy's curriculum. In 1876, as a first lieutenant, Captain Metcalfe prepared the Ordnance display for the International Exhibition at Philadelphia. He then prepared an extensive and detailed report of the War Department participation in the Exhibition. The report included details of United States and foreign ordnance displays and thus constituted a valuable reference on ordnance materiel. Captain Metcalfe, who was promoted to that rank in March 1879, retired on October 26, 1893 due to an eye injury. He died on August 17, 1927 and was buried at the United States Military Academy.



Major Alfred Mordecai, Jr.

Major Alfred Mordecai, Jr. was born in North Carolina on January 3, 1804 and graduated from the United States Military Academy in 1823 with a commission in Ordnance. He was Commanding Officer of Watervliet Arsenal, New York, from 1857 to 1861. In 1843, he conducted tests on gunpowder, with the idea of measuring muzzle velocity. This led him to construct a ballistic pendulum. During the period 1838 to 1849, he served as Assistant to the Chief of Ordnance and as a member of the Ordnance Board. He went to Europe to study foreign systems of artillery. An elaborate report was issued and as a result of Major Moredecai's effort the great work entitled "Artillery for the United States Land Service" was published. This European study was an early Ordnance technical intelligence effort. Mordecai's work on the Ordnance Board was the predecessor of the work of the later Westervelt Board. Being from the South, he would not fight against his own people in the Civil War, but at the same time honor and duty would not permit him to rebel against the flag of his country. He therefore resigned his commission on May 5, 1861. Major Mordecai died on October 23, 1887.



Professor Forest R. Moulton

Professor Forest R. Moulton was born on April 29, 1872 and was awarded a doctorate from the University of Chicago in 1899. As an Ordnance Department major, he headed the Ballistics Section of the Engineering Division from March 1918 to April 1919, supervising both its theoretical and experimental ballistics work. Professor Moulton recruited a number of assistants, among whom were some of America's most brilliant mathematicians and physicists. With unlimited energy, a high sense of duty, and initiative, he immediately discarded the awkward methods then in use and used logical, direct, and more accurate treatments for the problems encountered. Numerous improvements were made in projectile design and in the calculation of range tables under his direction. He determined the type of experiments needed for research and developed certain theories of great practical value. Professor Moulton's section in World War I was the primitive nucleus of what later became the world famous Ballistic Research Laboratories at Aberdeen Proving Ground. Professor Moulton died on December 7, 1952.



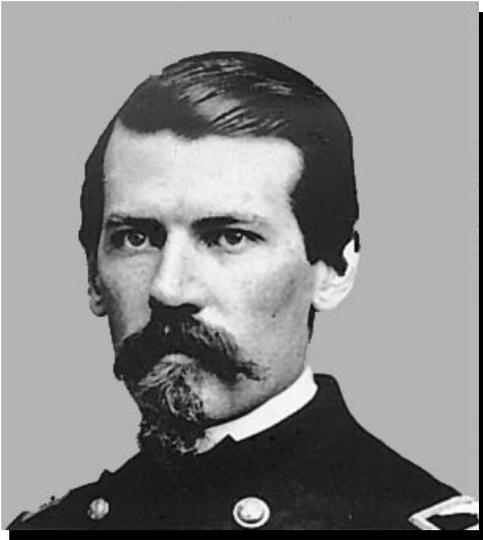
Brigadier General Urban Niblo

Brigadier General Urban Niblo was born on November 20, 1897 and graduated from the United States Military Academy in 1919. General Niblo, a former Chief Ordnance Officer, United Nations Command, during 1950-51, was inventive, vigorous, and resourceful. He had very definite opinions concerning the organization of ordnance service. During World War II, based upon his experience in the field, he overhauled the ordnance supply service to eliminate shortages and devised a flexible ordnance service concept called Uninterrupted Ordnance Service. General Niblo reorganized the ordnance structure in the field and established The Ordnance Group to administer and command the system. This operational concept worked so well during World War II, that afterward it was incorporated as the standard organization of ordnance service in the field Army. Its great advantage was the flexibility offered to meet the ever-changing demands of battle commanders. General Niblo retired from service on September 30, 1955 and died on August 11, 1957 at Walter Reed Army Medical Center.



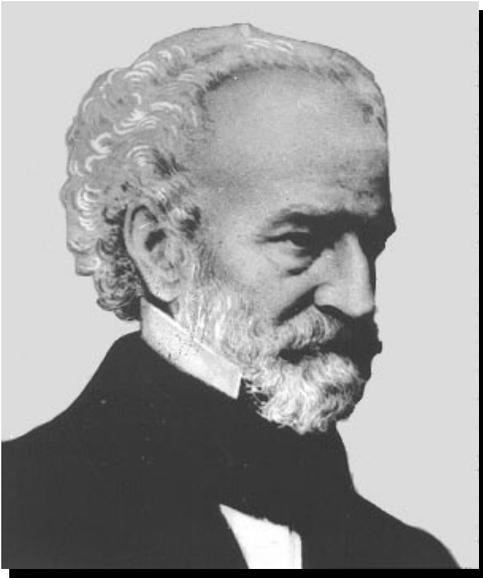
Captain Robert K. Parrott

Captain Robert K. Parrott was born on October 5, 1804 and graduated from the United States Military Academy in 1824. After his graduation and until 1829, he was science instructor at the Military Academy. He was promoted to captain, Ordnance Department, in January of 1836, but resigned in October of that year to become Superintendent of the West Point Foundry at Cold Spring, New York. During the period 1836 to 1867, he invented and manufactured the Parrott guns and projectiles. By utilizing the process of hollow casting and cooling patented by General Rodman, he devised a method of employing shrunken hoops of wrought iron to strengthen the breech of big guns at the peak pressure area. He was able to perfect the first United States rifled cannon in 1861. His guns showed exceptional durability in the Civil War and were extensively used in several calibers. He also developed an expanding projectile for use with the guns. The 8-inch Parrott gun was termed “the most formidable service gun extant” by some ordnance experts. There were 10-, 20-, and 30-pounders and a 15-inch (400 pounder) with a range of 5,700 yards. Captain Parrott retired to private life in 1867 and died on December 24, 1877.



Brigadier General Horace Porter

Brigadier General Horace Porter was born in Pennsylvania on April 15, 1837 and graduated from the United States Military Academy in 1860 as a Brevet Second Lieutenant of Ordnance. He served as Secretary to President Grant from 1869 to 1873. General Porter distinguished himself in combat several times during the War Between the States and on June 26, 1902 he was awarded the Medal of Honor for gallantry at Chickamauga, Georgia on September 20, 1863. General Porter rallied enough soldiers to hold the ground at a critical moment when the lines were broken under heavy fire - long enough to facilitate the escape of numerous wagon trains and firing batteries. He was awarded five brevets for gallantry, and rose to the grade of brevet brigadier general in 1865. He was promoted lieutenant colonel and later colonel of volunteers, and later served as aide-de-camp to Generals Grant and Sherman from 1864 to 1873. He was briefly assistant Secretary of War in 1869. General Porter resigned from service on December 31, 1873 to become the Vice President of the Pullman Car Company. Following his retirement, he served for many years as a railway executive and was active in politics. He was U.S. Ambassador to France from 1897 to 1905 and was personally responsible for locating the remains of Admiral John Paul Jones in a Paris cemetery and arranging for their return to the United States. For this service he was voted the thanks of Congress and the privileges of the floor of both houses for life. He died on May 27, 1921.



Brigadier General James W. Ripley

Brigadier General James W. Ripley was born in 1794 and graduated from the United States Military Academy in 1814.

Although commissioned in Artillery, he was assigned as an Ordnance officer to be Commanding Officer of Kennebec Arsenal when the Ordnance Department was reestablished in 1821. In 1841, General Ripley reported to Springfield Armory as its first military superintendent. As Commander and Superintendent, he rebuilt the Armory and introduced modern production methods. On April 23, 1861, he became the first general officer to be Chief of Ordnance. Brigadier General Ripley served as the Chief of Ordnance until September 15, 1863. His most significant contributions came during the Civil War. He increased the production of Springfield Armory assorted weapons production from 9,661 in 1860 to 276,000 by 1864. His primary objective during the Civil War was to provide the troops with standardized, perfected weapons. He succeeded in making the Ordnance Department a production agency rather than a research facility in time of war. He was thus able to ensure that the Union Forces were abundantly supplied and that the demands of war were met. After the war, he became the Inspector of Armament of Forts until his retirement as a Brevet Major General in February 1869. General Ripley died on March 15, 1870.



Brigadier General Thomas J. Rodman

Brigadier General Thomas J. Rodman was born on July 30, 1815 and graduated from the United States Military Academy in 1841. Around 1844, he devised a theory to account for both internal strains and imperfections, and for variations in the density, hardness, and tensile strength of the metal in cast iron cannon. During the period 1857 through 1859, he conducted experiments with cannons and the proper gunpowder formulations. This work resulted in his discovery of the progressive combustion principle and his findings that the rate of combustion could be controlled by compressing finely grained powder into larger grains of greater density. In 1861, he devised a crusher gauge which successfully measured weapon internal pressure for the first time. His most outstanding contribution was the method he invented for cooling cannon castings. The cannons were cast around hollow cores, through which the interior casting surfaces were cooled while the outer surface was kept hot both by heating and insulation. This method produced a gun wherein the inner layers were under considerable contraction, thus being very superior to the unchilled cast guns which so often burst during firing. General Rodman died at Rock Island Arsenal, Illinois, on June 7, 1871.



Major General Holger N. Toftoy

Major General Holger N. Toftoy was born on October 31, 1902 and graduated from West Point in 1926. He was directly associated with the Ordnance Guided Missile Program from its inception. He was responsible during World War II for bringing V-2 rocket parts and German missile scientists to the United States to participate in the U.S. Rocket Program. As chief of the Rocket Branch, R&D Division, Office of the Chief of Ordnance, from 1945 through 1952, General Toftoy was responsible for the direction of the Army Guided Missile Research and Development Program. This included the development of the Nike, Corporal, Honest John, Super Bazooka, and other missiles. General Toftoy established White Sands Proving Ground as the principal Army missile test range and provided the necessary administrative and technical facilities for its operation. He also established Redstone Arsenal in the role of the Ordnance Corps Commodity Arsenal for Rockets and Guided Missiles. He then moved to Redstone to serve as Director of the Ordnance Missile Laboratories. His team at Redstone Arsenal was responsible for the Jupiter-C rocket, which lofted the first free-world satellite, Explorer I. General Toftoy retired on March 1, 1960 and died at Walter Reed Army Hospital on April 19, 1967.



Brigadier General Guy E. Tripp

Brigadier General Guy E. Tripp was born on April 22, 1865. Before entering the U.S. Army, he became Chairman of the Board of Westinghouse Electric and Manufacturing Company. On January 16, 1918, he was commissioned a colonel in the Ordnance Department and was promoted to Brigadier General on August 23, 1918. He served as head of the newly organized Production Division, which was charged with securing the production of ordnance materiel for which orders and contracts had been placed. He established Ordnance Districts for the production of war materiel with a view for decentralization of authority relating to matters of administration, production, inspection, and shipment of supplies. His efforts resulted in the highest standards with respect to quantity and quality of output. Of special merit were the studies he initiated of machinery and tools to facilitate the best methods of manufacture. In 1926, he became Vice President of the American Ordnance Association. General Tripp held this position until his death on June 14, 1927.



Major General William H. Tschappat

Major General William H. Tschappat was born on August 10, 1874, graduated from the United States Military Academy in 1896. General Tschappat was a profound student of ordnance and was known to his associates as the greatest ballistician of all times. His textbook on ballistics was used at the United States Military Academy. From 1922 until 1925 he was the commanding officer of Aberdeen Proving Ground. He was appointed Chief of Ordnance in 1934 and served until 1938. During his service as Chief of Ordnance, he was concerned with the scientific aspects of ordnance, laying the groundwork for the research and development program which resulted in the establishment of the Research Division at Aberdeen Proving Ground in 1935. He fought to get funds for research and development in 1938, at the time when the budget was being reduced by the General Staff. In 1938, the Research Division was expanded into the now famous Ballistic Research Laboratories. Under his guidance, the M1 rifle was adopted in 1936. During World War II, he served on the National Inventors Council, set up to screen ideas and inventions that might be considered for use. General Tschappat retired on August 31, 1939 and died on September 22, 1955.

*No Portrait
Known to Exist*

Colonel Decius Wadsworth

Colonel Decius Wadsworth was born on January 2, 1768 and graduated from Yale College with honors in 1785. On June 2, 1794, he was appointed by President Washington as a captain in the Corps of Artillerists and Engineers. He briefly served as acting Superintendent of the Military Academy and was later a merchant in Montreal, Canada. Colonel Wadsworth was selected to be Commissary General of Ordnance July 2, 1812. On February 8, 1815, the Office of Commissary General of Ordnance was redesignated as the Chief of Ordnance. His newly authorized, but unorganized department was charged with the procurement, supply, and maintenance of all cannon, small arms, powder, ball, shot, and other related items for the war effort. He drew up a set of regulations to ensure uniformity in the public armories and in the manufacture of ordnance materiel. He standardized small arms in the service and accomplished inventories of materiel on-hand at posts and forts around the country. Colonel Wadsworth served as the Chief of Ordnance until June 1, 1821, at which time he left the service due to illness. Colonel Wadsworth died on November 8, 1821.



Major General Charles M. Wesson

Major General Charles M. Wesson was born on July 23, 1878 and graduated from the United States Military Academy in 1900 receiving a commission in the Cavalry. In 1920, he accepted a commission as a major in the Ordnance Department. He served as Chief of Ordnance from June 3, 1938 until May 3, 1942. He began his tenure as Chief of Ordnance shortly before Congress was apprised of the need to extensively re-equip the Army. To this problem, he dedicated his considerable experience and extensive knowledge of ordnance materiel and Army needs. Methodically and with unfaltering confidence in the ability of the Ordnance Department to meet with new demands, he laid his plans for the war ahead. He accelerated wartime production, stimulated the development and use of Ordnance arsenals, and guided the engineering and production schedules to meet the tremendous demands of World War II. General Wesson, who was Commanding Officer of Aberdeen Proving Ground from 1925 to 1929 and again from 1934 to 1938, retired on May 3, 1942 and died on November 25, 1956.



Brigadier General William I. Westervelt

Brigadier General William I. Westervelt was born on September 11, 1876 and graduated from the United States Military Academy in 1900. His service at the various manufacturing arsenals and proving grounds gave him an all-around experience in the design, testing, and manufacturing of ordnance materiel. In 1918 the Caliber Board, often known as the Westervelt Board, convened with him as President. The Board made a comprehensive study of the artillery caliber sizes, types of ammunition, and transport best suited for the United States Army. From the Board's recommendations evolved the 105mm howitzer M2. The Board recommended a 75mm weapon for antitank guns, correctly judging the future of tank development. The Board's recommendations profoundly influenced U.S. materiel of World War II and played a prime role in the development of materiel which displayed superiority under battlefield conditions. As late as 1940, the Board was still cited as the undeniable authority regarding armament. General Westervelt retired from service in 1927 to begin a civilian career in business. He died on March 1, 1960.



Major Hulon B. Whittington

Major Hulon B. Whittington was born in Bogalusa, Louisiana on July 9, 1921. He was awarded the Medal of Honor while a sergeant in the 41st Armored Infantry, 2d Armored Division. The Medal of Honor was awarded for conspicuous gallantry and intrepidity at the risk of life, above and beyond the call of duty on the night of July 29, 1944 near Grimesnil, France. During an enemy armored attack, Sergeant Whittington assumed command of his platoon, reorganized the defense, destroyed an enemy tank, and succeeded in repelling the enemy attack. Later, after receiving a commission in Ordnance, he served at Aberdeen Proving Ground as Commanding Officer of Company C, Officer Candidate School Battalion, during the early 1950 period. Major Whittington died on January 17, 1969.



Major General Clarence C. Williams

Major General Clarence C. Williams was born on November 8, 1869 and graduated from the United States Military Academy in 1894. He was Chief of Ordnance from July 1918 until April 1930. While

World War I was in progress, he improved the organization of the Ordnance Department and decentralized procurement. After World War I, he vigorously pursued the recommendations of the Westervelt Board, which established the family of artillery weapons. General Williams established a policy that permitted the using services to share in deciding what types of weapons they would employ. His postwar reorganization of the Ordnance Department realigned responsibilities into a simple, logical scheme that served as the basic operational pattern through the peace years. General Williams combined an open mind with an unusual administrative ability and encouraged industrial mobilization planning—stressing the partnership of arsenals and industry. He improved coast defense armament and ammunition and started work on a semiautomatic rifle. General Williams retired from active service on April 1, 1930 and died on June 11, 1958.