MEMOIR

OF

MONTGOMERY C. MEIGS.

1816-1892.

BY

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Read Before the National Academy, April, 1893.
Mr. President and Gentlemen of the Academy:

In the death of General Montgomery C. Meigs the Academy has lost one of its earliest members, who for many years has held an honored place in its Council. When the act of incorporation was passed by Congress in 1865 he was an intimate personal and professional friend of Henry, Bache, Totten, Baird, Saxton, and other leading scientists, and although his busy life afforded scant leisure for individual research his duties and tastes made him an extensive reader in many branches and gave him a warm interest in aiding the objects of the institution. He was a Regent of the Smithsonian Institution and a regular attendant upon the sessions of the Academy, where his familiar presence will long be missed by his associates.

General Meigs was of Puritan ancestry, his family tracing their descent from Vincent Meigs, or Meggs, who, with his sons, John and Mark, settled at New Haven about 1644, after having sojourned for a time at Weymouth, Massachusetts. They seem to have come from the southern part of England, probably from Dorsetshire. The descendants of Vincent Meigs for four generations lived and died in Connecticut.

The representative of the family in this fourth generation, Return Meigs, was about 67 years old when the first blood of the Revolutionary war was shed at Lexington, and was therefore too old to take an active part in the struggle. His son, Return Jonathan Meigs, born in 1740, won distinction as a soldier. He served as major in the expedition against Quebec, where he was captured; commanded a regiment under General Anthony Wayne at the storming of Stony Point, and still later led a successful expedition against Sag Harbor, on Long Island, for which Congress voted him a sword that is still preserved in the family. After peace was declared he wandered to Ohio with many other impoverished officers.
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of the army, and thence to Tennessee, where he became commis-

sioner to the Cherokee Indians. His son, of the same name, re-

mained in Ohio and represented that State in the United States

Senate in 1808-10; was governor in 1810-14, and subsequently

held the office of Postmaster General during the administrations of

Madison and Monroe.

Josiah Meigs, a brother of Colonel Return Jonathan Meigs and

17 years his junior, was the grandfather of our colleague. He was

a graduate of Yale College, where he became a tutor and subse-

quently professor of mathematics and natural philosophy. His life

was a chequered one, as he had little sympathy with the Federal

party; and he removed, in consequence, first to Bermuda and thence

to Georgia, where he became professor and soon thereafter presi-

dent of the struggling university of that State. In 1812 he was

appointed Surveyor General at Cincinnati, and in 1814 Commis-

sioner of the General Land Office at Washington. Here he re-

mained until his death, in 1822. In 1817 he attempted to obtain

legislation by Congress authorizing the President to cause meteo-

rological registers to be kept at the land offices under his direction,

thus anticipating the Smithsonian and army records and the pres-

cent Weather Bureau. Meteorology was a subject to which he had

given life-long attention, and failing to obtain the desired official

action, he inaugurated in 1819 a voluntary system of observations

at the land office stations which was continued several years and

the records of which are still preserved. Josiah Meigs was a

member of the American Philosophical Society and of the Ameri-

can Academy of Languages and Belles-Lettres, and was a man

distinguished for learning and independence of character.

Charles Delucena Meigs, the father of our associate, was a dis-

tinguished physician of Philadelphia, and for twenty years a pro-

fessor in the Jefferson Medical College. His wife, Miss Mary

Montgomery, of New Jersey, was of the same Scotch family from

which was descended General Richard Montgomery, who com-

manded the American forces and fell gallantly before Quebec on

December 31, 1775. Her motherly influence upon her children is

apparent from a letter written by General Meigs at the age of 72

years, after she had been in her grave quite 23 years. He wrote:

"She lived for her husband and children, not for herself, and all

her pleasures were in their happiness and success. The longer I

live the more strongly her worth and devotion are impressed upon
MEIGS.

me. I am more able as I grow older to understand and appreciate her virtues."

After completing his education at the University of Pennsylvania, Dr. Charles Delucena Meigs began the practice of his profession at Augusta, Georgia, where his eldest son, the subject of this memoir, was born on May 3, 1816. His parents soon removed to Philadelphia, where the boy was educated, finally entering the University of Pennsylvania at the early age of fifteen, but leaving it before graduation, upon receiving an appointment at the Military Academy at West Point. Here he reported in the summer of 1832, and was graduated on July 1, 1836, ranking fifth in a class of forty-nine members. His diploma recommended him for any branch of the service.

After a short service as second lieutenant in the First Artillery he was transferred to the Corps of Engineers, in which he reached the grade of first lieutenant in 1838, and that of captain in 1853. Shortly after the outbreak of the civil war he was appointed Quartermaster General with the rank of brigadier general, and he served in this capacity until retired for age, on February 6, 1882. He received the brevet of major general for "distinguished and meritorious services during the rebellion," to date from July 5, 1864.

His claims to distinction rest upon important professional services as an engineer, and upon able administration as chief of the most responsible supply department of the army during the trying period of the civil war. His record in both branches of the service is brilliant.

As an engineer, he was engaged on several minor works of coast defense; devised and constructed the Washington aqueduct; constructed the extension of the National Capitol, with its new wings and iron dome; extended the General Post Office building at Washington, D.C.; prepared in conjunction with Professor Baird the plans for the new National Museum to preserve and exhibit the contributions from the Centennial Exhibition of 1876; and, after his retirement, acted as architect of the Pension Office building during the entire period of its erection. These works afforded opportunities for the exhibition of boldness and originality in construction, and they will remain the best monuments to his ability as an engineer.

Among these structures the Washington aqueduct was always his favorite. To make the surveys, plans, and estimates of this great work was the first conspicuous and responsible duty which devolved
upon him in his professional career. He was then thirty-six years of age, and he entered upon the task with the enthusiasm of youth and the energy of matured manhood. The preliminary studies were made with wonderful rapidity, but so thoroughly as to leave little room for improvement during construction.

The aqueduct proper is a circular conduit of brick or rubble masonry, laid in hydraulic cement. It is nine feet in interior diameter and eleven miles long, measured from the Great Falls of the Potomac to the distributing reservoir in Georgetown. The general slope is nine and a half inches per mile. Whenever possible the location is subterranean, generally near the surface, in the natural soil, but several tunnels and supporting bridges could not be avoided, as the route traverses the lines of natural drainage of the District. The capacity is seventy millions of gallons per day.

This is not the place to detail the interesting devices for purifying the supply and regulating the flow at the receiving and distributing reservoirs, or the system of distribution throughout the cities by iron pipes, but mention should be made of two of the supporting bridges which illustrate the boldness and originality of the mind of the engineer. One is on the line of the masonry conduit at the crossing of Cabin John branch, and the other where the main supply pipes cross Rock creek, which separates Georgetown from Washington city.

The Cabin John bridge is a single masonry arch 220 feet in span, 101 feet in height, and 20 feet wide. The original project contemplated a series of short arches upon the Roman plan, but the change was made in view of the monumental character of the work, which was considered to justify the increased expense. The construction is notable as being the longest stone arch in existence; it is justly admired for its boldness and beauty.

The Rock Creek bridge is a novel structure, which fulfills the double purpose of conveying the main supply pipes across the stream and at the same time of serving as a viaduct. It is composed of two iron pipes each forty-eight inches in diameter, which carry the water supply and serve as the ribs of an arch of 200 feet span and 20 feet rise; this and a bridge similar, but of shorter span, crossing College branch, are unique structures, which testify to the originality characteristic of the designs of General Meigs.

The date of his assignment to the charge of the Washington aqueduct was November 3, 1852. In the following March the
charge of the Capitol extension was added, and in April, 1855, that of the extension of the General Post Office. The administration of these works included not only the supervision of numberless engineering details, great and small, but also the disbursement of the large appropriations for which, by the regulations of the army, the officer in charge is held responsible. The aggregate of Captain Meigs' engineer disbursements exceeded ten million dollars. It was at this period that my acquaintance with him began. Washington city was then a much smaller place than now, and popular interest in the prosecution of these great public works drew general attention to the management of the officer in charge. I well remember hearing from total strangers expressions of admiration and surprise that any one could successfully perform so much and so diversified labor. This well earned reputation for executive ability no doubt contributed to bring about his rapid promotion in the army when the political difficulties of the period culminated in the civil war.

The attention of influential men at this period was still further drawn to Captain Meigs by the fact that in the autumn of 1860 he incurred the ill will of the Secretary of War, John B. Floyd, for his independent stand regarding certain large contracts, and he was suddenly relieved from duty in Washington and banished to Tortugas, in the Gulf of Mexico, to construct fortifications at that place and at Key West. The resignation of Secretary Floyd in January, 1861, led to his recall to Washington in February, and his reassignment to the charge of the construction of the aqueduct; but the rising war cloud was then absorbing the attention of every one, and Captain Meigs was no exception to the rule.

His first opportunity for active participation in the great events then in progress came in connection with the relief of Fort Pickens. The circumstances were so unusual and so characteristic of the times that they will be briefly noted. He wrote himself under date of March 15, 1865:

"This earliest expedition of the war was organized under exceptional circumstances, and its records do not appear to have been preserved in Washington.

"Inquiry at the Navy Department and at the Executive Mansion and at the State Department has failed to discover any copies of the order.

"It was an executive act, unknown at the time to any but those
engaged therein, including General Scott, the Secretary of State, and the President."

The ordinance of secession was passed by the Florida convention on January 10, 1861. Two days thereafter the navy yard at Pensacola and Forts Barrancas and McRae were seized; and Lieutenant Adam J. Slemmer, First Artillery, then commanding the land forces, evacuated Barrancas barracks and concentrated his command (his own Company G, of 46 men and 30 sailors) at Fort Pickens, on Santa Rosa island, the most defensible position in the harbor. In the same month Captain Israel Vogdes, First Artillery, with his company of 86 men, was transferred from Fort Monroe to the steamer Brooklyn to reinforce him, but before their arrival at Fort Pickens an armistice or agreement was entered into between the Government and the State authorities, by virtue of which the troops were kept afloat off Santa Rosa island. This was the condition of affairs when President Lincoln was inaugurated on March 4. On March 12 an order was sent by General Scott directing a landing and the reinforcement of Fort Pickens. This order was not received until April 1, and was then communicated at once to Captain H. A. Adams, commanding the naval forces off Pensacola; but as the latter felt himself bound by the agreement above noted he hesitated to act, and sent Lieutenant Gwathmey, U. S. N., by land to report the fact to the new Secretary of the Navy, Gideon Welles, and ask instructions. This officer arrived in Washington on April 6, and Lieutenant John L. Worden, of Monitor fame, was on the same night dispatched over land with orders to Captain Adams to obey the instructions of General Scott and disembark the troops, which it had been supposed was accomplished long before. These orders came to hand on April 12, and on that night Captain Vogdes, with his company of 86 men and 115 marines, was successfully landed, increasing the garrison to nearly 300 men. The bombardment of Fort Sumter was then in progress, and it has been claimed that but for this reinforcement General Bragg would have attacked Fort Pickens on the night of April 13. The official records do not support this assertion. The field return of General Bragg's troops on March 31 shows an aggregate present of only 1,116 men, all Infantry. On April 6 he reported to the Confederate War Department:

"The only attack which I could hope to make now would be a sudden dash, distracting the enemy by a false attack and scaling
the walls in an opposite direction. The weakness of the garrison and the ardor and ignorance of my troops would be strong elements of success."

On April 8 he received a reinforcement of 1,600 men; on April 12 he reported:

"Alarm guns have just fired at Fort Pickens. I fear the news" (attack on Sumter?) "is received, and it will be reinforced before morning. It cannot be prevented."

Late in March, Secretary Seward, becoming solicitous for the safety of Fort Pickens, or perhaps for other reasons more nearly concerning the Department of State, decided to induce the President to dispatch another relief expedition, without consultation either with the Secretary of War or the Secretary of the Navy. He had confidence in the ability of Captain Meigs and Lieutenant D. D. Porter, U. S. N., to arrange all the technical details, and accordingly went with them to the President. The following extracts are from a narrative written by General Meigs under date of September 14, 1865:

"My first interview with the President and the Secretary of State in relation to the matter was on the evening of the 29th of March. The President did not inform me that he intended to attempt to relieve Fort Sumter, but questioned me as to the possibility of doing it. I advised him in general terms that I could find him plenty of officers of the navy willing to try it. He then asked me whether I thought Fort Pickens could be reinforced. I replied that it could be, provided the relieving force reached there before it fell, and with the map before us the mode of effecting this object was discussed. I advised that if the attempt was made a fleet steamer, under a young and enterprising officer, should be dispatched immediately to run the batteries, enter the harbor, and prevent any expedition of Bragg's crossing the harbor in boats to assault Fort Pickens. The President said he would see me again if he concluded to go further in the matter.

"I myself suggested to the President the name of the Powhatan and of her commander" (Lieutenant Porter), "and prepared the orders in relation to the movement for his signature, and this I did on the 31st of March or the 1st of April, three or four days before the Fort Sumter expedition was resolved upon."
"This the first successful military expedition of the war originated with Mr. Seward. Until it sailed the United States had declined everywhere; fortresses and harbors had been lost. He carried me to the President, merely saying that he thought the President ought to see some of the younger officers and not consult only with men who, if war broke out, could not mount a horse."

In his Fifty Years' Observation of Men and Events, General Keyes further contributes to this interesting history. He states that he was sent by General Scott, whose military secretary he then was, on Easter Sunday, March 31, to Secretary Seward to explain the difficulty of relieving Fort Pickens. The Secretary summoned Captain Meigs and ordered them jointly to prepare a plan for its relief, which they did on the same day, and, introduced by Secretary Seward, laid it before the President. The latter ordered them to see General Scott and carry out the plan. They drafted the order to Colonel Brown, placing him in command of the expedition, and General Scott signed it on April 1. Another order, giving carte blanche to Colonel Keyes to fit out the army contingent, General Scott declined to sign, referring him to the President, who signed it on April 3. Keyes, Meigs, and Porter left Washington together that same night and began work in New York on the following day. This incident ultimately brought about the dismissal of Colonel Keyes from his position as General Scott's military secretary.

But on April 1 the Powhatan had been already selected by the Secretary of the Navy as the flagship of the expedition to relieve Fort Sumter, and was put under orders for sea service; nevertheless, armed with the following document, drafted by Captain Meigs, Lieutenant Porter obtained possession of the ship from the officer in command, Captain Samuel Mercer, U. S. N.:

"EXECUTIVE MANSION,
"WASHINGTON, April 1, 1861.

"Lieut. D. D. Porter will take command of the steamer Powhatan, or any other U. S. steamer ready for sea which he may deem most fit for the service to which he has been assigned by confidential instructions of this date.

"All officers are commanded to afford him all such facilities as he may deem necessary for getting to sea as soon as possible.

"He will select the officers to accompany him.

"Recommended: William H. Seward.

"ABRAHAM LINCOLN."
This interference with his cherished plans came to the knowledge of the Secretary of the Navy late at night on April 5, and at a midnight interview with the President, at which Mr. Seward also was present, he obtained a revocation by telegraph of this order detaching the flagship of the Fort Sumter expedition. The telegram, however, arrived too late to stop Lieutenant Porter, who, as he states, deliberately disregarded it and sailed on April 6, arriving at Santa Rosa Island on April 17.

Captain Meigs personally sailed on the transport Atlantic as the engineer officer of the expedition, with orders to return as soon as it was established at Fort Pickens. The force consisted of four companies under command of Brevet Colonel Harvey Brown. Shortly before sailing, on April 7, Captain Meigs wrote to Secretary Seward as follows:

"Unless this movement is supported by ample supplies and followed up by the navy, it will be a failure. This is the beginning of the war which every statesman and soldier has foreseen since the passage of the South Carolina ordinance of secession. You will find the army and the navy clogged at the head with men, excellent patriotic men, men who were soldiers and sailors forty years ago, but who now merely keep active men out of the places in which they could serve the country.

"If you call out volunteers you have no general to command. The general born, not made, is yet to be found who is to govern the great army which is to save the country, if saved it can be. Colonel Keyes has shown intelligence, zeal, activity, and I look for a high future for him.

"England took six months to get a soldier to the Crimea. We were from May to September in getting General Taylor before Monterey. Let us be supported; we go to serve our country, and our country should not neglect us or leave us to be strangled in tape, however red."

The Atlantic arrived safely at Fort Pickens on April 16, some hours before the Powhatan, and the troops were at once landed on the beach without interference from the enemy. The Powhatan did not enter the harbor, as had been ordered, because this would have entailed a great and needless exposure of the ship. Thus for the second time was Fort Pickens reinforced.

Shortly after his return to Washington Captain Meigs was
appointed Colonel of the Eleventh Infantry, to date from May 14, and Quartermaster General with the rank of brigadier general, to date from May 15, 1861.

This appointment carried with it weighty executive responsibility, as upon the Quartermaster Department is devolved the duty of providing the transportation of every kind needed in the movement of troops and materials of war, of supplying the clothing and camp and garrison equipage of the men, and, in general, of attending to numberless details upon which the military efficiency of the army depends. The department had been carefully organized and trained by previous experience and was officered by able and efficient men, but how to expand sufficiently to meet the demands of the rapidly increasing volunteer service was a problem calling for business training and ability of a high order. These were the qualifications which General Meigs brought to the task and which he displayed throughout the long and weary years of the war in a manner to win the approval of the army and of the country. The usual duties of the department were largely increased by the act approved July 4, 1864, which devolved upon the Quartermaster General the duty of examining and reporting upon all claims of loyal citizens in States not in rebellion for quartermaster stores received or taken for the use of the army during the entire war. Over 33,000 claims, aggregating forty million dollars, were thus reported upon, and about 11,000 of them were paid by Congress upon the recommendation of General Meigs.

He enjoyed throughout the war the confidence and support of the President to a marked degree, and although the nature of his duties kept him from the field, Secretary Seward fully appreciated their importance, as the following extract from a letter written in 1867, introducing him to officers of the diplomatic service abroad, will testify:

"The prevailing opinion of this country sustains a firm conviction which I entertain and on all occasions cheerfully express, that without the services of this eminent soldier the National cause must either have been lost or deeply imperiled in the late civil war."

After the close of the war General Meigs attended to the routine administration of his department, and in addition made several extensive inspections and served on many important boards. He
twice visited Europe—the first time in 1867-'68, for the benefit of his health, which had suffered from overwork, and the second time in 1875-'76, on special service, to study the constitution and government of armies abroad. He was retired by action of the President on February 6, 1882. The following address to the officers of his department, bearing the same date, so well expresses his views upon the services rendered by that branch of the service during his administration that the language is quoted entire:

"On this day, having passed the age at which an officer may be retired at the discretion of the Executive, I am relieved by executive order and retired from the military service into which I entered as a cadet 49 years and 7 months since.

"Of this time nearly 21 years have been spent at the head of your department, to which I had the honor to be called by President Lincoln in 1861.

"The corps has seen great changes since I entered it. It has been expanded till, leavened by the knowledge and spirit and integrity of the small body of officers who composed it early in 1861, it showed itself competent to take care of the supplies and transportation of a great army during four years of most active warfare. It moved vast bodies of soldiers over long routes; it collected a fleet of over 1,000 sail of transport vessels upon the great rivers and upon the coast; it constructed and equipped a squadron of river iron-clads, which bore an important part in the operations of the army in the West, and after having proved its practical power and usefulness, was accepted by the navy, to which such vessels properly belonged; it supplied the army while organizing and while actively campaigning over long routes of communication by wagon, by rail, by river, and by sea, exposed to hostile attacks and frequently broken up by the enemy; and, having brought to the camps a great army, it, at the close of hostilities, returned to their homes over a million and a quarter of men.

"It is now reduced to the proportions of a peace establishment, containing only 64 officers of the staff and about 200 acting assistant quartermasters who hold their commissions in the line.

"During this time the corps has applied to the wants of the army over nineteen hundred and fifty-six millions six hundred and sixteen thousand dollars and has used this vast sum, nearly two
thousand millions, with less loss and waste from accident and from fraud than has ever before attended the expenditure of such a treasure.

"Its worth and its success have been the study and admiration of military nations. On only two occasions during the four years of war did any army of the Republic suffer from want of supplies. General Rosecrans' army, after the check at Chickamauga, lost control of its long line of communications, men lived for a time on scant rations, and many horses and mules of the cavalry, the artillery, and the trains perished. On taking Savannah, upon his march to the sea, General Sherman found it impossible at once to open the river, whose channels had been during four years laboriously obliterated by the enemy. Thus the quartermaster's fleet, laden with all military supplies, which waited at the mouth of the river the opening of navigation to satisfy all the wants of his army, was detained for a few days, and some animals perished in the Southern savannas; but vessels and machines provided by the quartermaster department opened the channel and soon restored plenty. I am happy that I was able on these two only occasions of want to be with the troops.

"Believing that should another great war arise you will be able again to quickly enthue into the officers who must be called from civil life to reinforce you the spirit, the integrity, the exact methods of business and of prevention of robbery and waste which did so much in that war, I now bid you each and all farewell, with hearty wishes for your continued prosperity and honor."

A few months after his retirement General Meigs received from Congress a notable indication of the confidence and respect entertained for him by that body. When by act approved August 7, 1882, appropriation was made for the erection of the Pension Office building at Washington, it was specially provided that it should be erected "under the supervision of General M. C. Meigs, late Quartermaster General, United States Army, retired," and upon such Government reservation "as may be selected by the Secretary of the Interior, the Secretary of War, and General M. C. Meigs, subject to the approval of the President." Such legislation is extremely unusual.

The Pension Office building was General Meigs' last work, and he took an absorbing interest in its details. Whatever may be
thought of the architectural beauty of its exterior, presenting as it
does a marked innovation upon the style of other public buildings
in the District, no one, I believe, will question its fitness for the
purpose intended or the economy of its construction.

Social life in Washington in the days before the war was infor-
mal and very pleasant. The scientific men of the city, of whom
many were widely known throughout the country for their re-
searches and attainments, associated themselves together and organ-
ized what has since become the Washington Philosophical Society.
Captain Meigs was one of the original members, and at the meet-
ings held weekly in rotation at the several residences of the asso-
ciates he formed acquaintances and cultivated tastes which influ-
enced his whole future life.

He was elected a member of the American Philosophical Society
at Philadelphia, his early home, in 1854, and became member of
the Military Order of the Loyal Legion in 1865. He was also
associated with several other societies.

In 1841 he married Miss Louisa Rodgers, daughter of Commo-
dore John Rodgers and sister of Admiral John Rodgers, U.S. Navy.
Seven children were born to them, four sons and three daughters.
Three died in infancy. The others survive their parents, except
the oldest son, John R. Meigs, who was graduated at the Military
Academy at West Point at the head of his class in June, 1863, and
was at once appointed first lieutenant in the Corps of Engineers.
After brilliant military services in that corps, for which he was
twice brevetted, he was killed in a skirmish with guerrillas near
Harrisonburg, Virginia, on October 3, 1864, at the early age of 22
years.

In his home life General Meigs was endeared to his family and
friends by many traits of gentleness, simplicity, and affection.
When relieved from the cares of his public responsibilities he de-
voted much time to professional reading and study, and, being
gifted with a retentive memory, he became possessed of a vast store
of information on many subjects.

He died, after a short illness, at his home in Washington, on
January 2, 1892. His remains were buried at Arlington, with
military honors, on the crest of the hill overlooking the city and the
Potomac. The sarcophagus was designed by himself several years
before his death.
In the obituary order published from the headquarters of the army is given the following tribute to his services and character:

"General Meigs was personally a man of kind and amiable character, of strict probity and sense of right, and of great breadth of intellect. The army has rarely possessed an officer who combined within himself so many and valuable attainments and who was entrusted by the Government with a greater variety of weighty responsibilities or who has proved himself more worthy of confidence. There are few whose character and career can be more justly commended or whose lives are more worthy of respect, admiration, and emulation."