

NEWTON, John, soldier, b. in Norfolk, Va., 24 Aug., 1823. He was graduated at the U. S. military academy in 1842, standing second in the class that included Henry L. Eustis, William S. Rose-



John Newton

crans, John Pope, Seth Williams, Daniel H. Hill, Earl Van Dorn, James Longstreet, and others that held high commands during the civil war. After being promoted into the engineer corps as 2d lieutenant, he served as assistant professor of engineering at the U. S. military academy, and then in the construction of various fortifications and other engineering

works along the Atlantic and Gulf sea-coasts until 1860, except during 1858, when he was chief engineer of the Utah expedition. He had attained the rank of captain on 1 July, 1856. At

the beginning of the civil war he was chief engineer of the Department of Pennsylvania, and then held a similar appointment in the Department of the Shenandoah, and from August, 1861, till March, 1862, was assistant engineer in the construction of the defences of Washington, D. C. He was made brigadier-general of volunteers, 23 Sept., 1861, and had charge of a brigade in the defence of the capital. During the peninsular campaign he served with the Army of the Potomac, and was engaged in the actions at West Point, Gaines's Mills, and Glendale. He continued with his command in the Maryland campaign, participating in the forcing of Crampton Gap and the battle of Antietam. Gen. Newton led a division in the storming of the Marye Heights in the battle of Fredericksburg, was made major-general of volunteers on 30 March, 1863, and then took part in the Chancellorsville campaign and in the battle of Salem Heights. In the subsequent Pennsylvania campaign he succeeded to the command of the 1st corps on 2 July, 1863, after the death of John F. Reynolds, and commanded it in the last days of the battle of Gettysburg. He was brevetted colonel for services in this action, and engaged in the pursuit of the Confederate army to Warrenton, Va., and in the Rapidan campaign during October and December, 1863. He was placed in command of the 2d division of the 4th corps of the Army of the Cumberland, under Gen. Oliver O. Howard, in May, 1864, and participated in the invasion of Georgia, taking active part in the engagements, including the battle of Peach Tree Creek, Ga., that culminated in the capture of Atlanta in September, 1864. Subsequently he had command of various districts in Florida until he was mustered out of volunteer service in January, 1866, after receiving, on 13 March, 1865, the brevets of major-general in the volunteer army, and those of brigadier-general and major-general in the regular army. He received his regular promotion as lieutenant-colonel of engineers on 28 Dec., 1865, and in April, 1866, was made superintending engineer of the construction of the defences on the Long Island side of the Narrows entrance to New York harbor; also of the improvements of the Hudson river and of the fort at Sandy Hook, N. J. He was also a member of the board of engineers to carry out in detail the modifications of the defences in the vicinity of New York. These and other similar engineering duties, principally in connection with the harbor of New York, occupied his attention until his retirement on 27 Aug., 1886. His well known achievement of this kind was the removal of obstructions in Hell Gate channel, the important water-way between Long Island sound and East river. These, known as Hallett's reef and Flood rock, were duly mined and exploded on 24 Sept., 1876, and 10 Oct., 1885. All of the problems that were involved in the preliminary steps of this great work were completely and conscientiously studied, and the accuracy of his solutions was shown in the exact correspondence of results with the objects that he sought. The proposed enlargement of Harlem river, the improvements of Hudson river from Troy to New York, and of the channel between New Jersey and Staten island, and of harbors on Lake Champlain were likewise under his charge. He was advanced to the rank of colonel on 30 June, 1879, and to chief of engineers, with rank of brigadier-general, on 6 March, 1884. The office of commissioner of public works in New York city had been for some time awarded by political preferment, and it became necessary to secure for it a man of superior skill and scientific training. In

accordance with these requirements, Mayor William R. Grace, on 31 Aug., 1887, appointed Gen. Newton to that office, which he has since filled. His services as consulting engineer have been repeatedly sought, and he has invented steam-drilling apparatus that have been used in removing rocks in New York harbor. He was elected to membership in the National academy of sciences in 1876, and to honorary membership in the American society of civil engineers in 1884.

NEWTON John Thomas, naval officer, b. in