

and superintendent of the Hartford and New Haven Railroad, then in operation to Springfield, Mass. He remained in charge of the work until 1848, when he was tendered the situation of chief engineer of the Hartford and Willimantic Roads, and as he preferred to construct, rather than to superintend, railroads, he accepted the position. In its course, the route crossed the Connecticut River and the Bolton Mountain. In order to reach the summit of this mountain, and save as much rock-excavation as possible, it became necessary to adopt a grade of sixty feet to the mile for a distance of five miles, which at that early day, before locomotives had been improved in their capacity to overcome steep grades, was a work of no small interest. This work was completed in 1850, when he returned to Utica to take charge of the survey of a route extending from Schenectady to Syracuse, a distance of one hundred and thirty miles. In the winter of 1851 Mr. Holton, a director of the Milwaukee and Prairie du Chien Railroad, employed Mr. Brodhead to finish constructing the road, which had been completed as far as Eagle. There were many features in the construction of this road which were of a serious character; but it was finally completed in 1857. The last year of his connection with this road, he was president of the company. In 1853 Mr. Brodhead was selected as one of a commission of three to investigate the first serious collision that occurred in the North-west. It took place between two train of cars, — one upon the Southern Michigan Railroad, and the other upon the Michigan Central, at the crossing of the two roads, at a point about seven miles south of Chicago. In the report upon the subject, a recommendation was made, that a regulation should be adopted, that all trains, before crossing the track of another railroad, should come to a stand-still. This plan has since been adopted, and in most States has become a law. In 1857 he closed his business in engineering, having been engaged in it for twenty-five years. During this year, he and his wife made a trip through the Southern States. In April, 1863, he was appointed president of the Farmers' and Millers' Bank, on the resignation of its former president. Mr. Brodhead is still in the same office, though the bank has been re-organized into a national bank. In 1871 he accepted the office of water-

commissioner for the purpose of constructing a system of water-works for the city of Milwaukee. This duty was performed without compensation, and the works have been completed, and turned over to the city in June, 1875. Mr. Brodhead attributes a portion of his good health to outdoor exercise. The name of Mr. Brodhead has, for many years, been prominent in the engineering profession. Through his zeal and industry, the East and the West are indebted for their improved railroad facilities. In our State, the iron band connecting the Great Lakes with the Mississippi remains a monument of his untiring zeal and energy. His name will ever be honored by the citizens of Milwaukee for the part he performed in bringing to a successful completion the perfect system of water-works in their city.

COL. JAMES MIDDLETON ARNOLD.

— He was born in Libertyville, Ill., April 20, 1841. He came to Milwaukee, Wis., with his parents, when an infant, and has lived there up to the present time. In 1858 he entered business as a drug-clerk, in the employ of Henry Fess, jun. Subsequently he entered the employ of Smith, Chandler, and Co., from whence, in 1862, he enlisted in the Twenty-fourth Regiment of Wisconsin Volunteers, a Milwaukee city regiment. He went through the war; was taken prisoner at battle of Murfreesborough, Dec. 31, 1862, and spent two months in Libby Prison. He was exchanged, and detailed for clerical duty on staff of Major-Gen. John Pope, on which duty he continued for fourteen months, during which time he was married. He was relieved by General Orders of War Department, and rejoined the regiment while in the line of battle on Rocky Fall Bridge, Ga., served on the staff of Major-Gen. Newton and George H. Thomas, and afterwards filled the position of assistant adjutant-general in State of Tennessee, with the rank of major, holding such commission in the Third Tennessee (Union) Cavalry.

He is now connected with the firm of Arnold, Yule, and Co., the most extensive dealers in engines, wood and iron working machinery, and manufacturers' supplies, in Milwaukee. He was elected to the city council as alderman from the seventh ward in April, 1874, for the term of two years. He has been prominently identified with the advancement of public works in that section of the city. He holds the