Don J. Whittemore's Services to Engineering

By E. E. R. Tratman*

Don J. Whittemore's life work was in the development of the Chicago, Milwaukee & St. Paul Ry.—its development from a small local line into one of the greatest railway systems of the West, aggregating over 10,000 mi. in length and extending from the Great Lakes to the Pacific Coast. His connection with this work may be said to have begun in 1860, when he became Chief Assistant Engineer of the La Crosse & Milwaukee R.R. The western division of the road (Kilbourn to La Crosse) was sold at foreclosure in 1863 and its purchasers organized the Milwaukee & St. Paul R.R., which also acquired control of the whole line. Mr. Whittemore was made Chief Engineer of the company, which had then 275 mi. of line.

The Milwaukee-St. Paul line was completed a few years later, and the Chicago-Milwaukee line in 1872, to give adequate connections with the East and South. In 1874 the company changed its name to the Chicago, Milwaukee & St. Paul Ry., and at that time it had built and acquired a total of about 1,400 mi. of line. It reached Omaha in 1882 and Kansas City in 1887. The annual mileage of new construction for several years ranged from 50 to 500 mi., and the total mileage increased to 5,657 mi. in 1890 and 7,511 mi. in 1912.

The company was one of the most active in the development of the central Northwest, building and acquiring lines to form a network of main and local lines, so that its chief engineer had extensive and varied duties and responsibilities, to say nothing of difficulties. All of the many notable features were constructed under Mr. Whittemore's supervision, and these included many large bridges, particularly those over the Mississippi and Missouri Rivers.

About 1905, the company decided to build an extension from the Missouri River to the Pacific Coast. Separate companies were organized in each state, but in 1908 these were all combined under the name of the Chicago, Milwaukee & Puget Sound Ry. This was opened in 1909, and in 1913 the line (2,081 mi.) was absorbed into the Chicago, Milwaukee & St. Paul Ry. system. Mr. Whittemore remained as Chief Engineer until his resignation in December, 1910, at which time he was made Consulting Engineer of the company in recognition of his long and distinguished career in its service.

The preparation of an adequate or detailed biography of Mr. Whittemore is rendered difficult from the fact that he outlived his contemporaries. It may be said that since he began his engineering career, in 1847, two generations of engineers have passed away. Such men as Shaler Smith, Charles Paine, Willard S. Pope and others could have testified to his qualifications and would have delighted in paying tribute to his talents. The present source of information is in the younger engineers who were associated with him during his later years, but they could not enjoy the intimacy and consequent knowledge of him as a man that belonged to his friends who were more nearly equal to him in age. In fact he was numbered among the fathers of the profession when men now elderly were among the youths looking up to him for counsel and help. It is to be noted that it is 44 years since he became a member of the American Society of Civil Engineers, and 32 years since he was President of the Society.

The foregoing relates to the professional career of M Whittemore as a factor in the development and growth of the country, but this biography would be incomplete without appreciative reference to the human or personal side of his nature. He was a man of strong character, self-reliant, confident and able to cope with difficulties. Such elements as these were necessary in the early days of pioneer railroading, and were no less useful during the years that he was chief engineer of a strong railway system. But with his strength of character he combined a quietness and reserve of manner which led him to retirement rather than to activity outside of his regular work.

He was devoted to his profession and his friends, and loyalty was one of the marked elements of his character. His advice, which was always sound and to the point, was given to younger men more for their own general good and future development than for the immediate results to be shown in their work. He had an unusual faculty of giving advice in short pithy terms, and in such a way that the hearer would remember and practice it. Undoubtedly all of the numerous members of his staff during his long career must have benefited through this kind of advice, perhaps without realizing the extent of his influence.

He was always a student. He was fond of mathematics, and on an inspection trip it was common for him to propose some sort of a puzzle composed of figures. He was naturally inclined to be an investigator, and was greatly interested in discovering some cheap process for the manufacture of aluminum at a time when it was a very expensive metal to produce. In the same way he took great interest in the manufacture in this country of portland cement, and with both of these materials he contributed by experimental work to an extent that would have been recognized had not the development in manufacturing these products been so rapid as to throw into the shade the early experimentation. Being somewhat reserved in temperament, he conducted his investigations privately, and said little as to his own work and accomplishments. Mr. Whittemore was one of the first to see and develop the possibilities of the cement rock found near Milwaukee, Wis. He was prominent in the establishment of the Milwaukee Cement Co., which flourished for several years and furnished the cement for many large structures. In railway work, one of his striking ideas was that of using flat-topped rails and flat-tired cylindrical wheels, in place of the round-top rail and coned wheel. This he advocated in a paper before the American Society of Civil Engineers in 1889.

He was a great reader as well as a thinker, and it has seemed to many of his intimate friends that but for his characteristic reticence and reserve he might have done more than he did for the promulgation of engineering knowledge. His experience and his retentive memory qualified him to have made contributions to engineering literature which would be extremely valuable to the profession. It is to be regretted also that he did not write more in the way of experiences and reminiscences, for he could have written in a way that would have been profitable and would have encouraged the younger men in their professional work. This is a point of view which might well be given consideration by engineers of long experience. Although reserved, and in recent years living a retired life, he was a genial companion.

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