With the Great Northern

Like John F. Stevens, James J. Hill had an extraordinary ability for picking promising men. Hence it was not surprising that late in 1912 he should invite Budd, then 33, to come to St. Paul as assistant to the president of the Great Northern. At first Budd had charge of capital expenditures and contracts, but before long he became chief engineer of the system as well. By the end of a year, it was apparent that there was more than enough for one man — even a Ralph Budd — to do as assistant to the president. Hence the two assignments were again separated so that Budd could concentrate his efforts in the executive office. Actually, Hill had retired as president in 1907. But the Empire Builder continued to serve on the board until his death in 1916, and as Budd put it, "was really the power there as long as he lived."

In 1918 Budd became executive vice-president. During the period of federal control, he actually occupied two positions: that of assistant regional director of the Central Western District, whose headquarters were in Chicago, and executive vice president of the Great Northern Corporation. It was from this latter post that he was elected presi-

dent of the Great Northern Railway in 1919, at the age of forty.

Ralph Budd's election to this major post, though a complete surprise to him, had been ordained long since by none other than Hill himself. It seems that shortly before his death Hill had called on George F. Baker, Sr., president of the First National Bank of New York and for years Hill's most trusted financial adviser. Hill told Baker that he had spent a good deal of time and energy in training Ralph Budd for the top position on the road, and that when the time came to look for a new president, Budd was their man. Thus by specific designation Budd inherited the office and responsibilities of the Empire Builder.

The heritage was indeed magnificent, nor did it consist simply in a superb physical property with immense earning power. Hill had seen to it, in an apparently casual way, that his prospective business heir should have a thorough grounding in his own precepts. While Budd was chief engineer, Hill frequently asked him to go along on drives around the Twin Cities, usually on a Saturday afternoon. Presumably these were to inspect the varied properties of the railroad in and around the metropolitan area and to talk over the countless plans for the future that were always coursing through Hill's mind. But the old titan had lessons to teach, too. Over and over again his specific discussions pointed up the lesson that the prime ob-

jective of a railroad was to produce the maximum transportation service with the minimum amount of effort. That meant direct lines, low grades, easy curves, balanced traffic, modern equipment, the most efficient motive power available, and meticulous maintenance. The reverse side of the medal, of course, was Hill's vigorous intolerance of waste.

It was natural that Budd, as president of the Great Northern, should continue policies originated by Hill. But in addition Budd planned and carried through a succession of additional major projects that bore the stamp of his imagination and became distinctive of his administration.

In many ways the most spectacular achievement was construction of the new Cascade Tunnel in central Washington. The original line had climbed over the range with eight switchbacks until, in 1900, the first Cascade Tunnel, slightly over two and a half miles in length, was completed. But Budd felt, in the mid-twenties, that even this improved facility was a handicap to the prompt movement of highly competitive traffic. Consequently in 1926, he secured approval of the Great Northern board to build the new tunnel and make extensive line changes in the Cascade Mountains. The entire job was completed in the amazingly short time of three years. The new Cascade Tunnel, 7.79 miles from portal to portal, became and has since remained the longest in the Western Hemisphere. Actually, the tunnel itself was only part of a major line relocation which saved almost nine miles in all, eliminated over a thousand feet of rise and fall, and took out curvature equivalent to ten complete circles.

Spectacular as the tunnel was and is, one of its by-products was eventually destined to make even more of an impact on American railroading. During construction, men working far underground were dependent entirely on air pumped in to them; the pumps used electrical power brought in over lines that crossed the mountains. This was a continual risk because the mountains were subject to very bad slides. Consequently Budd constantly worried about what would happen to the men inside the mountain if a slide should cut off the power. To meet that contingency several stationary Diesel engines were installed which could produce enough current to operate the pumps. Those machines, of course, were extremely heavy, but in principle were the same as those eventually used to drive locomotives.

Once the Diesels were installed, Budd discovered that they were not only extremely dependable, but could produce power as cheaply as it could be purchased. Consequently he decided to operate them continuously to take the peak load and thus reduce costs. The metal of which these Diesels were made was, of course, so heavy in relation to horsepower that such an engine was im-

practical for mounting on a locomotive frame. Budd was deeply impressed with Diesel performance, however, and carefully noted the results in his mind for future use.

No sooner had the Cascade Tunnel been completed, in January, 1929, than the Great Northern applied for permission to build approximately 88 miles southward from Klamath Falls to Bieber, California. At the same time the Western Pacific sought authority to build north from Keddie, on their main line, to a junction with the Great Northern at Bieber. This, of course, was the southern portion of the Bend-Keddie line that Ralph Budd had surveyed twenty years before. The project was duly authorized and the through route completed in 1931. To the Great Northern and the Western Pacific the new line opened up an extensive pine lumber producing territory and (together with the Great Northern line from Bend to Klamath Falls which was opened in 1927, and the Santa Fe south of Stockton, California) it brought service to a huge area that had previously lacked any railway facilities at all. In addition, the three roads provided a new railroad route between California and the Northwest.

A third major project of Budd's administration was the proposed merger of the Great Northern and Northern Pacific into the Great Northern Pacific Railway. When the I.C.C. finally gave its answer after prolonged hearings, its approval

was made dependent upon the willingness of the northern lines to relinquish control of the C. B. & Q. That condition was too high a price to pay, for the Burlington not only supplied an entry into Chicago, but served as well as a perfect complement, traffic-wise, for the two northern lines. Thus, although it was estimated the proposed combined company would have meant a saving of over ten million dollars annually that would have been reflected in lower railway rates and faster service, the proposal was abandoned.

No one needed permission, however, to improve service. For years the Great Northern had been considered primarily a freight line. But the fact was that the Great Northern served an immense territory, and in those days when there were no good highways and no airplanes, it was necessary for the road to supply a great deal of local passenger service, which it did. Consequently its passenger earnings were substantial but it did not feature fast, through service. The Oriental Limited, to be sure, ran between Chicago and Seattle on the standard 72-hour schedule, but it was second in popularity to the long-established North Coast Limited on the rival Northern Pacific. Furthermore, as highways were improved, and automobiles increasingly took away local business, it seemed to Budd necessary to develop faster, upto-date through passenger service, not only to hold business and bring up revenues, but to create

good will, particularly on the part of shippers, and thus back up the solicitation of freight traffic. Budd reasoned the Great Northern had an excellent track, an easy crossing of the mountains on a short line, and an extraordinarily scenic route, particularly through Glacier Park, while the territory west of Fargo and Minot was sparsely settled so that few stops would be necessary, thus contributing to comfort on a fast through schedule.

Completion of the new Cascade Tunnel seemed a logical time to establish a first-rate through train. So it was that in June, 1929, the *Empire Builder* was inaugurated on a schedule that saved an entire business day. As Budd foresaw, the train immediately became popular. At the same time a concerted drive for additional passenger business was launched with a Coast-to-Coast broadcast series entitled "The Empire Builder Program." Each episode featured a pioneer who had made his mark in the road's territory. Great effort and care went into the writing of the scripts, because Budd insisted that each should be absolutely authentic historically.

Despite his keen appreciation of the direct and collateral effects of top-flight passenger service, Budd knew as well as his famous predecessor that freight traffic was the railroad's staff of life. On the Great Northern, more than half the tonnage moved consisted of products of mines, most of it

iron ore from the Mesabi region destined to the company's Allouez docks at the head of Lake Superior. If, reasoned Budd, this particular traffic was of such crucial importance to the company, any gain in efficiency in handling it would produce proportionately important results. Consequently he proposed that the standard ore-carrying car, which up to that time had had a capacity of 50 tons or less, be replaced by cars of 70 tons capacity or more. The suggestion was carried out, and was copied by other ore-carrying roads.

The scope of Ralph Budd's interests has always been extraordinary. In 1930, for example, he was invited to inspect the Soviet Railway System. The resulting report was a virtual almanac of the Russian economy as it then existed; the conclusion: that in the long run Russia should adopt American rather than European methods. Whatever the Soviets learned from this analysis may never be known, but for Budd the experience was intensely illuminating and provided thereafter a cross-bearing of tremendous value.

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