Chap. 3:transportation in the period of railroad priority (1892-1909) : roads

Notes

1. W.F. Potter, "Railway Work in Japan," Institution of Civil Engineers Session, 1878–1879, part 2, sect. 1, "Minutes of Proceedings" (vol. 56).
2. Through the official provision of names for railroad routes in April 1895, the Tokaido Railway became the Tokaido Line.

Roads

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Increase in Railroad Freight Handlers

As previously mentioned, the beginning of operations for the Japan Railway Company in 1883 between Ueno and Kumagaya and their subsequent satisfactory development increased the interest in private railroads. The decade from the mid-1880s to the mid-1890s was what might be called one of railroad fever. A rush in company development planning and licence application began. One railroad after another was built and began operating. Shortages of capital delayed the construction of the government railroad between Tokyo and Kyoto, but by procuring funds through bond issues and changing the route, in July 1889 the entire line between Shimbashi and Kobe was able to be completed. After a strong push by the army, construction on the Yokosuka Line started quickly in the autumn of 1887. The project was completed in June 1889, and transportation of general freight and passengers began between Shimbashi, Ofuna, and Yokosuka. Thus, Japan's railroad age began in the early 1890s.

The advent of the railroad age greatly affected road transportation. The railroad's overwhelming transportation power drove road transportation to the sidelines, but it also created a new demand for road transport to pick up and distribute freight in the station vicinity. The existing routes for distribution were reorganized with the railroads as their central axis. This formed a new transport system consisting of long-distance railroad transportation and supplemental road transport.

The formation of the new transport system rapidly increased the number of operators handling the collection and delivery of railroad freight at each station. As has been mentioned, from the early Edo period there were transport subcontractors in every area who used bearers and horses at each post-station to carry goods for the goods' owners. These subcontractors transported goods that their owners had previously been responsible for transporting and, using porters and horses at the post-stations, delivered the goods to their destination. Over several hundred years, this system had secured a strong foothold in society, and it was continued in this form on into the railroad age. To these subcontractors, there was no essential difference between the age of railroads and the age of post-station horses and porters. This is why, when the first railroad began operating between Shim-

bashi and Yokohama in 1872, a rapid series of applications poured in from transport subcontractors who wanted to use the railroad to haul goods. To increase the amount of railroad-carried goods, railroad officials actively worked to get permission for these subcontractors. In Japan, where transport subcontracting was already a well-established business, it would have been impossible for the Railway Bureau to directly collect and deliver freight and conclude contracts with all freight owners. This was what was behind the increased number of transport subcontractors handling railroad freight collection and delivery at each station. One newspaper remarked on the rapid increase in subcontractors and the harsh competition between them:

> Both the extension of the railroad and the expansion of sea routes mean development for Japanese transportation. The number of transportation companies is rapidly increasing everywhere. The gradual expansion of companies like Naikoku Tsuun, Nihon Un'yu, Nihon Yuden, and Chugyuba, and the increase in many small companies and cooperatives make the numbers truly large. The increase in companies is a good thing for the person sending goods, but we have to think about the serious effects of competition that is occurring among these operators.[1]

Appearance of Powerful Transport Subcontractors

While the number of operators was sharply increasing and the competition intensifying, there appeared several powerful businessmen who sought to organize and systematize operations. The reason larger operators began to get into the business was that, as railroad transportation was increasing, the debit and credit transactions between operators were becoming more and more complex, and there was an increasing demand for freight receipts to be issued. The payment of loans and the issuing of freight receipts did not, of course, begin when railroads came into being. Even in the days when roads were the major means of transportation, freight that a customer entrusted to a transport subcontractor passed through the hands of many transport operators and handlers before reaching its destination. However, as long as no one went with the cargo, there was no way that each handler along the route could be individually paid; the fees had to be paid when the cargo was first entrusted. Transportation between far-removed locations created the customary relations of debit and credit between operators, and various methods were employed for liquidation. During the age of road transportation, when the range of transport and number of transactors were limited and attendants would frequently accompany expensive freight, the methods of cyclical payment or alternating monthly payments were adequate. But, as the railroad age frequently created complex relations of debit and credit between many operators, powerful operators who could use rapid communications to organize the liquidation of loans became an absolute necessity.

Issuance of freight receipts necessary for handling freight exchange had

been going on since the Edo period. Receipt use was clearly delineated in the operational regulations for transport subcontractors of the early Meiji period. But, in the railroad age, the range of goods became much larger. As a much more accurate and rapid circulation of funds became necessary, the demand for receipts, indispensable for dealing with freight exchange, rapidly increased. The times required powerful operators who could handle that demand.

Through the 1890s and early 1900s, there appeared throughout the country powerful transport subcontractors who dealt in the liquidation of indebtedness and the issuance of freight receipts. Some of these companies (and the date they were founded) are Naikoku Tsuun (1875); Tenryu Un'yu (1892); Kyosan Un'yu (1897); Nihon Teigyo (1899); and Meiji Unso (1907). Through their activities in liquidation and receipt issuing, these powerful companies systematized transporters throughout the country and indirectly caused heavy competition for increased market share between subsidiaries.[2]

Trends in Transportation Modes and Road Construction

The birth of the railroad age led to a rapid increase in transport operators at the stations handling the collection and delivery of railroad freight and a rapid increase in the kinds of transport used to collect and deliver that freight. Table 3 shows these different transport modes as taken from the *Statistical Yearbook of the Empire of Japan*. In the 20 years from 1890 to 1910, horse-drawn passenger vehicles increased three-fold, horse-drawn freight coaches increased 5.5 times, ox carts 3.2 times, and handcart transport 2.2 times. The ox cart and handcart were basically for short-distance hauling, and we are unable to draw a clear picture as to the use of the horse-drawn coach. However, according to documents from that time, stagecoaches had all but disappeared in every part of the country; passenger vehicles were horse-drawn coaches used for close distances, and the freight coaches were large, horse-drawn vehicles. All relied on horsepower. Thus the means of transportation that were rapidly increasing during this period were those, including horse-drawn coaches, that covered short distances. Rickshaws had begun to decline in number around 1900, a decline probably caused by the appearance of the tram (1895 in Kyoto, 1902 in Tokyo) and the development of the bicycle for practical use. The bicycle was first imported to Japan during the Restoration period but was mainly regarded as an object for pleasure. But through improvements such as air tyres, chains, and wheels of the same size in front and back and reductions in price, imports and the use of bicycles for daily transportation began to increase around 1900. It was around this time that Japanese manufacturers started to build bicycles using imported parts and traditional techniques. Through the importation of machine tools and motors, a basis was gradually developed for domestic production. As table 3 shows, this resulted in a jump in the number of bicycles registered, from 31,594 in 1900 to 239,474 in 1910. It was also around 1900 that the import of steam-, electric-, and gasoline-

Table 3. Number of road vehicles 1890–1910

Fiscal year	Horse-drawn carriages		Ox-drawn carts	Carts	Rickshaws	Bicycles
	Passenger	Freight				
1890	2,877	29,088	11,027	763,056	178,041	?
1895	3,226	51,592	18,544	1,042,925	206,848	?
1900	6,105	90,103	30,501	1,322,309	205,390	31,594
1905	6,173	98,434	27,085	1,355,952	164,499	89,949
1910	8,565	158,590	35,448	1,667,520	149,567	239,474

Source: Taken from *Nihon Teikoku tōkei nenkan* (Statistical yearbook of the Empire of Japan).

powered passenger vehicles began. However, initial numbers were very small, for there were only 210 vehicles registered at the end of March 1912. Not until the 1920s did the transportation business begin to use such vehicles on a wide scale.

As the railroad age began, the emphasis in road construction and improvement shifted to local roads. The proportion of expenditure for national highways as a percentage of total road expenditure was at the 18–30 per cent level up to 1889, but in 1890 it dropped to 15 per cent, and in 1897 it was 10 per cent (see table 5, chap. 2). Although bridge expenditures were declining – but not as quickly as highway funds – expenditures for bridges on national highways relative to total bridge funds dropped from 25 per cent in 1879 to 18 per cent in 1897. As usual, local government had to pay the largest share for these roads, and most expenditures for national highways and bridges were shifted over to local bodies. The railroad age, which started around 1890, resulted in, once again, the localization of national road transport, in this case as a means of transportation to and from railroad terminals. The traditional method of making local people pay for all roads in their locality continued unbroken from the Edo period.

Notes

1. From the *Chugai Bukka Shimpo* for 21 August 1889.
2. Nippon Tsuun Kabushiki Kaisha, *Shashi* (Company history) (Nippon Tsuun, 1962), chap. 3.

Coastal and River Transport

Hiromi Masuda

Coastal Shipping and the Establishment of a Coastal Shipping Industry

Through the formation of Nippon Yusen and Osaka Shosen, referred to as *shasen* (i.e. companies using their own ships), and other shipping corporations, or *shagaisen* (companies using outside ships), the base for Japan's maritime shipping industry was almost complete by the 1890s. However, these companies were involved in domestic shipping only. The only scheduled overseas shipping route was the one to Shanghai that the government-protected Misubishi Company had taken in 1875, and its development lagged far behind that of domestic routes. The major reason for this backwardness was that the shipping companies had not accumulated adequate capital to increase their number of ships. Nippon Yusen was the first to begin an overseas route, in March 1889, from Shanghai to Vladivostok. Osaka Shosen followed in July 1890 by putting ships on the route between Osaka and Pusan. In December, Nippon Yusen began its route