RAILWAYS IN CHINA.

EVER since the opening of the treaty ports, the attention of foreigners in China has been attracted to the development of the means of intercommunication in a country where the engineering difficulties to be encountered are comparatively small. The frequent recurrence of famine over the vast area of China, the enormous difficulties of transport with the consequent delay and uncertainty in conveying relief, and the increased price of all commodities in a ratio out of all proportion to the distance from the area of production, offered such strong arguments for the introduction of railways, that it seemed impossible even for Chinese prejudice to withstand them, provided any feasible scheme could be produced. The history of railways in China is given in the May number of *The Contemporary Review*, in an article by Mr. Charles S. Addis. The most practical method appeared to be by way of demonstration, and accordingly a small line was constructed between Shanghai and Wusung, a distance of thirteen miles. In December, 1876, the line was opened for traffic under a convention between the governments of Great Britain and China, and for some time met with a fair measure of success. From December to October, 175,995 tickets were issued, and the sum of $38,258.78 was realized by their sale. Happily no casualty of any kind happened to passengers, and the promoters of the railway had reason to congratulate themselves on the complete success of their undertaking. But they had underestimated the intense conservatism of the Chinese character, the dislike which such an innovation was sure to arouse among a nation profoundly affected by an ancient system of geomancy, and imbued with a traditional reverence for the places of the dead, and, above all, the opposition to be encountered from the host of carriers by road and canal, already jealous of the slightest interference with their means of livelihood. With such potent influences arrayed against it, the railway bantling could hardly be long-lived. It lasted barely a year. On Oct. 20, 1877, the Chinese authorities purchased the line. The rails were torn up, the permanent way was destroyed, and the remains of the first railway in China are now lying rusting on the Formosan beach.

Meanwhile events had been moving rapidly. China had formally entered the comity of nations. Her political relations with foreign powers were becoming closer and more involved. Emigrants were annually departing from her shores in increasing numbers to Australasia, the Straits Settlements, the United States, and Peru, and their care formed an additional and growing tax upon the resources of Chinese diplomacy. The national cohesion could not long withstand the disintegrating processes at work, and the barriers of ancient exclusiveness were crumbling away as surely and more rapidly than the Great Wall itself. It became necessary to appoint ambassadors and consuls at foreign courts and at those places where large numbers of Chinese subjects had settled. It was soon found that Celestial diplomacy could hold its own against that of the West, but it was felt to be intolerable that all the advantages of a rapid means of communication should be on the side of the barbarian. The telegraph-wire, at any rate, soared above the gods of the earth and the spirits of ancestors at rest within the tomb. It interfered with no man's property, and not even the most superstitious of the censors had a valid objection to offer. In fact, all that was required was a fair start; and, that once obtained, the wires "forged ahead" until in 1884 there were 3,089 miles of line open, and the imperial authorities at Peking found themselves in direct communication with the Marquis Tseng, who was then their representative in Great Britain.

This was a great step in advance, and quite in keeping with the Chinese method of reversing the procedure of other countries. For once, the telegraph had given a lead to the railway, and other influences were at work to hasten its lagging steps. The veteran warrior and statesman, Tso Tsung-t'ang, lay sick at Foochow. He had seen the masterly subjugation of the rebels in Kashgaria during the long years between 1871 and 1877, where also his own victories had won for him a place in Chinese history beside the most famous generals of old. The Taiping rebellion had received its death-blow at Gordon's hand, but the constant fear of Russian encroachments on the Mongolian frontier, the extreme delicacy and even danger of China's relations with Japan, the restlessness of Corea under the imperial suzerainty, and the impending difficulties with France, filled his patriotic soul with trouble. It may be that with the prescience begotten by approaching death he foresaw the parlous times in store for his country, when France should reach her frontier on the south, when Great Britain should touch her borders on the west, and Russia should approach as near on the north. He was passing away, and on whom was his mantle to fall? His own difficulties in grappling with an internal war had been heavy enough, but who could save China in the future, when her enemies hemmed her in on every side? In a most touching memorial to the throne, penned shortly before his death, he reviewed the situation, and, with all the weight of his tried patriotism and experience, urged the construction of railways as a first means of safety for his country. The appeal could not pass unheeded by either his countrymen or the government. The effect on public opinion of such an utterance from one of China's noblest and most trusted sons, with all the weight lent by his subsequent decease, was indeed enormous. It soon became known that the Viceroy of Chihli, and his *protégé* the Viceroy of Formosa, were in favor of the project. In 1887 the Marquis Tseng returned from his duties abroad to take up an important position in the capital, and to throw all his additional knowledge and experience on the side of reform. The same year an historical event happened which had an important bearing on the case. For the first time a prince of the royal blood visited a foreign settlement. Prince Ch'un, who is the father of the present emperor, and a man of liberal views, journeyed as far south as Chefoo to inspect the Chinese fleet. For the first time in his life he came in contact with foreigners, and was able to see for himself the value of modern inventions. On his return to Peking, he laid the results of his journey before the dowager empress, and it soon became known that this wise and astute lady was also on the side of progress. The body of censors, who there perform the functions of a parliamentary opposition with England, were ominously silent,—a sure sign of their consciousness that any protests of theirs would be ill received at court. In a word, the times seemed ripe, and, after one or two preliminary memorials, the imperial rescript was issued in March of last year, and the die was cast. For the first time official sanction was obtained for the novel undertaking, and nothing remained but to put it into execution. The matter was happily intrusted to Li Hung-chang, by far the most enlightened and able statesman in China, and in his hands it was felt that success was assured.

But he had set himself a difficult task. To allay the hostility and smooth the susceptibilities of a conservative and superstitious people demanded all the care and tact at his command. The slightest mistake might mean failure, and to insure success the greatest caution was necessary. His first step was to familiarize the people gradually with the new means of locomotion. The year before the rescript was granted, a small railway on the Decauville system was laid at Tientsin, and for a few cents the public were whirled round a circle of two or three miles. The snorting little engine was found, on acquaintance, to be not such a very dreadful object, after all, and for several months curious and delighted crowds thronged the carriages. Meanwhile, Liu Ming-ch'uan had not been idle in Formosa, and a line of strategic railway was being constructed in the very country where a few years before the old Wusung rails had been thrown down in contempt. The third and most important step, however, was made in Li Hung-chang's own province of Chihli. Tong King-sing, a man of great ability and with a taste for Western inventions, had opened at Tongshan the first colliery in China worked on foreign principles. The engineer-in-chief was Mr. C. W. Kinder, a man thoroughly honest, able, and reliable. Under his management, a railway had been constructed to convey the coal from the mine to the port of shipment, some twenty miles distant, and at this the authorities had been content to wink. Here, then, was a man ready to hand, and to him accordingly Li Hung-chang applied. The China Railway Company was formed, with Chinese directors indeed, but with European engineers, and work was at once commenced. "*T'ieh lu lai la*" ("The railways are coming"), said Prince Kung once to Dr. Wells Williams at Peking. A decade and more has passed since then, and at last the prince sees his prophecy fulfilled.

The Tongshan line has now been extended until a distance of 81

miles has been completed: viz., Tientsin to Tongku, 27 miles; Tongku to Lutai, 25 miles; and Lutai to Tongshan, 29 miles. In addition, there are 5 miles of sidings and branches. The line is a single one, the rails are of steel, and the gauge throughout is the 4 feet 8½ inches common in Great Britain. The four passenger and seven tank locomotives were, with one exception, imported from England.

Financially there is every reason for believing that the new railway will be a success. The small Tongshan line has already paid a dividend of 6 per cent, and the extension will add enormously to its profits, tapping as it does a populous stretch of country and a busy centre of commerce like Tientsin. An additional feature is the extreme cheapness with which the line has been constructed. The country through which it passes is flat and marshy, and in certain seasons of the year liable to inundations. In consequence of this, an embankment of 8 feet in altitude was in some places required, some fifty bridges had to be constructed, and an extensive system of water-channels was found necessary. Bearing this in mind, the total cost so far — viz., a million and a half of taels, or, say, under £4,300, per mile — is exceedingly small, and reflects the greatest credit on Mr. Kinder and his staff.

A comparison between the Japanese and the Chinese is a favorite theme with travellers, who never tire of contrasting the former's rapid strides with China's timid steps along the path of progress. No doubt Japan is far ahead of China in all modern improvements, but her pioneering has been expensive work, and China has profited by her experience. The first railway in Japan, from Tokio to Yokohama, a distance of 18 miles, was completed in 1880, at a cost of £34,263 per mile. The difference in cost of the two railways is certainly remarkable, but the detailed items of expenditure are not sufficiently numerous to enable one to form an accurate comparison. The engineering difficulties of the Japan line were apparently no greater than in China, and the gauge was only 3 feet 6 inches, as opposed to the 4 feet 8½ inches of China. On the other hand, the line was a double one; but, after every allowance is made, it seems evident that the Japanese were heavily fleeced in their first railway contracts, and that the Chinese have profited by the experience of their neighbors.

In the numerous troubles and even riots that arose as the railway pushed its way past mouldering graves and through the well-tilled fields, the viceroy found an able ally in Wu Ting-fang, a man of great tact and energy. Combining the *suaviter in modo* with the *fortiter in re*, he managed with success to conciliate the prejudices of the small farmers, the bones of whose ancestors he was about to disturb. Wu Ting-fang spent some years in England, and qualified himself with honors as an English barrister-at-law. The management of the railway is now virtually in his hands, and his foreign experience should stand him in good stead.

At the end of September the new line was opened for traffic, and trains are now running daily over the whole distance. Tickets have been printed, a time-table published in the *Chinese Times*, and crowds of natives are already availing themselves of the novel mode of conveyance. The engine-drivers are as yet Europeans; but the Chinese have shown a remarkable aptitude for work of this kind, and may soon be expected to replace their foreign competitors.

On the 9th of October, Li Hung-chang made his first journey of inspection. He was received at the Tientsin station by the foreign engineers and by an imposing array of Chinese officials clad in their robes of state. A body of foreign-drilled troops was stationed for some distance along the line, and, by their smart appearance and soldierly bearing, formed a striking contrast to the native braves, armed with ancient gingals and bows, and dressed in tawdry uniforms of black and yellow. The viceroy entered the handsome saloon carriage built for him, and, amidst a *feu de joie* from the soldiers, steamed out of the station at 8 A.M. The carriage is provided with a bedroom, a lavatory, and rooms for the viceroy's suite. The teak furniture was supplied by a firm of upholsterers at Shanghai, and the general decorations are tasteful and handsome. The viceroy showed a lively interest in the new work, and, to facilitate his inspection, the train proceeded slowly; but during one part of the journey he was bowled along at the rate of fifty miles an hour, and this speed could easily have been increased. After a short rest at Tongshan, his Excellency returned to Tientsin, much pleased with the result of his visit. It would have been extremely unfortunate had any thing occurred to excite Chinese fears or prejudices, but happily the trial passed off without a hitch. A formal report has been ordered to be submitted to the Throne and to Prince Ch'un. Its tenor will undoubtedly be entirely favorable, and the railway system will receive its *imprimatur* immediately.

The first railway in China — the Wusung affair was merely an experiment — has thus been brought to a triumphant conclusion. With the record of previous failure before us, we must guard against being too sanguine, but for this railway there is no need to fear such a catastrophe as that of Wusung. It is not a foreign, but a Chinese undertaking, with native directors, who will be shrewd enough to protect their own interests; and obviously it rests on a sounder basis. Its slow growth affords the surer hope of its stability, and it needs no prophet to foretell that once more China is entering on a new era of civilization. Still, it is believed, the growth will be slow, and until the capital is reached it is unlikely that any comprehensive scheme will be adopted. China has as yet only tasted the advantages of Western civilization, but the morsel has been large enough to excite her appetite for more. If Taku were again threatened, troops could now be poured in by the railway, and the capture of the forts would be a more serious matter than it was in 1860–61. But Taku is not the only vulnerable point, and the railway must be extended to Shanhai-kuan, which lies some eighty miles in an opposite direction, before the defences of the capital can be considered complete. It is practically settled already, however, that the first extension shall be some seventy miles north to T'ung-chou, an old port on the Peiho, fifteen miles from Peking. The provincial officials who are continually travelling to and from the capital on business, and the crowd of undergraduates who go there to be examined, can now sail from the south to Taku in a comfortable foreign steamer. As soon as the extension is completed, they will be able to traverse the distance between Taku and T'ung-chou with an ease and rapidity in striking contrast to the painful and tardy journey by cart to which they have hitherto been accustomed. At T'ung-chou they will be forced to disembark, and endure the torture of driving in a Peking cart over the thirteen miles of stone road by which Marco Polo travelled more than six hundred years ago. No one who has not made that journey can realize what it is to be cooped up in a springless cart, like an enlarged dog-kennel placed on wheels, and to be bumped and jolted over these blocks of masonry, one wheel now high in the air, rattling the unfortunate traveller's head against one side of the cart, and anon sinking deep in a bog, to send him flying with a lurch to the other, until, bruised and bewildered, he sees the gates of Peking loom in sight, and, with a sigh of relief, endures a final jolt as he passes under the ponderous archway. That journey will be the motor muscle of railway extension. Human nature, even Chinese human nature, will not long endure the anomaly of spending three hours of peace and comfort over the first 130 miles of a journey, and three hours of pain and torture in covering the last 13 miles. The discomfort of it is a blessing in disguise; and when the Peking station is opened, and the railway-whistle shrieks as we near its ancient walls, we shall draw our rug closer about us, and bless the old road for what it has brought. Once the exclusion of the capital is broken down, who can predict what will follow? The growth, as has been said, will be slow, and it is well that it should be so. No grand trunk lines will be attempted until repeated small extensions have been proved a success. That success may be considered assured, but the Chinese are right to prove it for themselves. And as the years roll on, we may conclude that first one province and then another will fall under the sway of the Iron King, until an arterial system of railways shall bear new life and vigor to every extremity of corporate China, and she wakes once more to feel her old strength, but with it a new potentiality for the safety and peace of her people.

With regard to the results which will spring from the introduction of railways in China, we may find a fair parallel in the benefits which have accrued to India since they were established there. Agriculture will receive a much-needed impetus, rebellions will be

made impossible, the food of the common people will be cheapened, their luxuries increased, their standard of comfort raised, and the famine demon will depart, never to return. Wider and more general information will be diffused throughout the empire, and, with enlarged knowledge and sympathy, the old-time ignorance and exclusiveness will disappear. But with the peculiar conditions of Chinese civilization, reforms more interesting and unique than these will certainly follow.

From the difficulty and expense of travel, the inhabitants of the various provinces have been born and brought up in a state of seclusion beyond modern experience. A Chinaman is, as a rule, born and buried within a radius of a few miles. Practically he is a stranger to his neighbor, and an astonishing variety of language is the result. In all, there are nearly 300 dialects spoken in China, many of which are as different as French and English. It is not uncommon to see a southern Chinaman meet a countryman from the north, each utterly unable to comprehend the speech of the other. The facilitation of travel must, in course of time, do much to mitigate this babel of tongues, and the necessities of the case must produce some modification of one of the principal dialects, from which a new universal language for China will be evolved. This hope seems the more reasonable, as the written language is the same all over China. There is also a fainter hope of a reform in the written language itself; and perhaps a later generation may know the blessings of an alphabet, and exchange the present cumbrous and involved ideographs for a system of phonetic romanization.

Railways will also produce an entire reform in the Chinese currency. The same reasons which have produced a variety of languages have also conserved the most bewildering varieties of weights and measures. There are no coins of any kind, with the exception of small brass and iron *cash*, of which from ten to twenty, or even more, are equal to a penny. For all large payments, lumps of silver are employed, which are generally, for convenience' sake, moulded into the form of a shoe. In making a purchase, you produce your silver, and, after one lengthened dispute as to its quality, you enter upon discussion number two as to the particular measure of weight to be employed, of which there may be several. In Peking, for instance, there are no less than five in common use. All this, of course, occupies much time, and it would be manifestly impossible for the train to wait while a bevy of passengers were conducting the purchase of their tickets in this way. A coinage will have to be adopted. The standard chosen will probably be a coin of silver, of one tael in weight, and equal to about $1.08 of our money, and the smaller coins will be in decimal proportion. The convenience to the country and benefit to commerce of the new currency will be felt from one end of China to the other.

It will be necessary also to adopt a foreign standard of time. At the treaty ports there is a ready sale for cheap clocks and watches, and the Chinese who have dealings with foreigners have not been slow to appreciate their convenience. In Peking there is a considerable number of watchmakers, descendants of old Catholic families, who still practise the somewhat antiquated horology which their fathers learned from the early Jesuit missionaries. But the system in vogue throughout China remains unchanged from the days of antiquity. The entire day is divided into twelve periods of two hours each, beginning at 11 P.M. Each period is known by the name of some animal, and is further divided into eight *chihs*, corresponding to our quarters of an hour. The nights are, in addition, divided into five watches, which the patrols ring out from wooden drums; but there is no smaller subdivision than the *chih*. For time-keepers they have sun-dials, or clepsydras, or spiral incense-sticks, arranged, like King Alfred's hour-candles, to burn for a certain length of time. If you ask the time of day, you will be told that it is near the dog, or two-eighths from the rat; but more approximately than that, you cannot get. It is curious that a people so industrious as the Chinese, and so studiously economical in their habits, should never have a juster estimate of the value of time. To them, so far from time being money, money is every thing, and time nothing. He who aims at being the *superior man*, whom Confucius held up as a model for all time, must never be in a hurry. Every thing must be done in a dignified and deliberate manner, and the idea of a quarter of an hour, more or less, making the slightest difference to himself or any one else, has not yet entered the Celestial cranium. It will be one of the greatest surprises in the life of a mandarin when he first stalks down to the railway-station, and finds that the train is timed to start to the minute, and will wait for no man. Happily, there can be no objection, superstitious or otherwise, to the introduction of timepieces, and the railway clock will be the precursor of a new punctuality and despatch in China.

Changes so far-reaching and profound as these cannot fail to produce a sensible modification of the Chinese character. The odium and contempt in which foreigners are held, simply because they are foreigners, will melt away as opportunities for intercourse increase.

As yet the question has been considered only from the Chinese point of view. The interesting point is that the new railway sounds the death-knell of Chinese exclusiveness. The empire can no longer remain sealed, and now is the time for England to consider if she is in the best position for taking advantage of the vast field of commerce which may shortly be thrown open. English consuls have recently borne a singularly unanimous testimony to the apathy of the British trader, and he must be on the *qui vive* now if he does not wish to see the benefits of the coming change pass into the hands of others. To begin with, the Chinese are totally unacquainted with modern engineering, and the railway construction of the immediate future must be done for them by foreigners. Both with engineers and traders, a serious difficulty will be the want of men familiar with the Chinese language and mode of thought. For several years past, the professor of Chinese at King's College has labored, with a zeal and enthusiasm which deserved a better return, to supply this want. To meet the convenience of clerks and others unable to attend during the day, a series of evening classes was started, of which the first-fruits may be seen in the successful career of some of Mr. Douglas's old students in China. But these may be counted upon the fingers of one hand, and the general result must be pronounced disappointing. Probably no attempt by an English professor to teach an Oriental language without the aid of a native assistant is likely to be completely successful. But this is a desideratum which could and should be easily supplied. A greater, and alas! almost insuperable difficulty remains in the apathy and indifference of those in whom indifference is least excusable. Foreign clerks employed in England arrive with a general knowledge of two or more languages, while your Englishman is accustomed to hold in contempt all languages except his own, and even to feel a certain pride in his ignorance. His neighbors are more quick-witted. Men are drafted off to China from the Oriental College at Paris, who, on their arrival, exhibit a very passable acquaintance with the rudiments of the Chinese language. A similar college has just been opened at Berlin; and the chair of Chinese is filled by Professor Arendt, a sinologue of the highest standing. True, England has professors of Chinese at her universities, but the teaching given is too scientific to be of much use to commercial men. Business men have neither the time nor the inclination to form even a tolerable acquaintance with Chinese literature or the flowers of official discourse. It must not be forgotten that the written language, the language spoken among officials, and the ordinary colloquial, are practically three different tongues. It is the last which is necessary, and happily the colloquial is well within the reach of any one who cares to approach it in a spirit of patience and perseverance. With a Chinese teacher, under the supervision of a European sinologue, a two-years' course would be sufficient to equip any one of ordinary ability and application with a fair talking knowledge of the colloquial, which would prove of immense service to him in China. The importance of such a course on the future commercial relations of England with China is sufficiently apparent. The danger lies in delay. The former has now a strong hold on the foreign trade of China; but, when the interior is thrown open, there will be an enormous development in every branch of commerce. Foreign banks and trading-houses will become as much a feature of the inland as of the seaboard towns, and the English will have to strain every nerve to maintain their old lead, or the French and the Germans will be before them in the race.