

CHINA AND THE CHINESE.

The area of China is 4,218,401 English square miles. Of this territory only 1,336,841 miles belongs to China

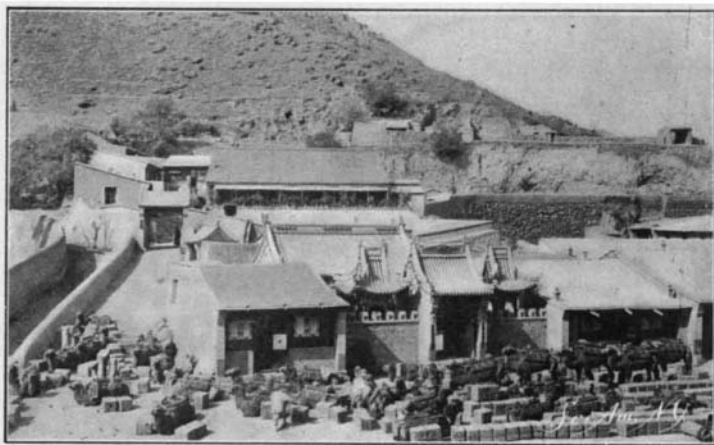


CHINESE CARPENTER PLANING A LOG.

proper, the remainder being the dependencies of Manchuria, Mongolia, Thibet, Jungaria and East Turk-



It is 200 feet high and it has 2,000 iron bells rung by the wind.
PA-LI-CH'UANG PAGODA, PEKING.



DEPARTURE OF A TEA CARAVAN.

estan. Notwithstanding the relatively small size of China proper, it contains the bulk of the population, having 386,000,000 inhabitants out of a total population of the kingdom of 402,680,000. The present Emperor of China belongs to the Manchu dynasty, which overthrew the native dynasty of Ming in the year 1644. As the late Emperor died suddenly, he did not designate a successor, as is the custom in China, where there exists no law of hereditary succession. This is one of the causes of the trouble in China, owing to the fact that the Empress Dowager was able to obtain ascendancy over the young Emperor, so that on September 22, 1898, an imperial edict was issued announcing that the Emperor had resigned power to the Empress Dowager, who has since retained the direction of affairs and by her dislike of foreigners has done much to foment the troubles and has made it easy for the Boxer movement to gain headway, even if she is not directly responsible for the attack, as has been suggested by those who have an intimate knowledge of Chinese affairs. On January 24, 1900, it was declared by decree that the son of Prince Tuan should succeed the present Emperor. This is generally regarded as equivalent to Kwang Su's deposition. The lively interest which Prince Tuan is taking in the attacks on foreigners is easily accounted for by his son's right to the throne.

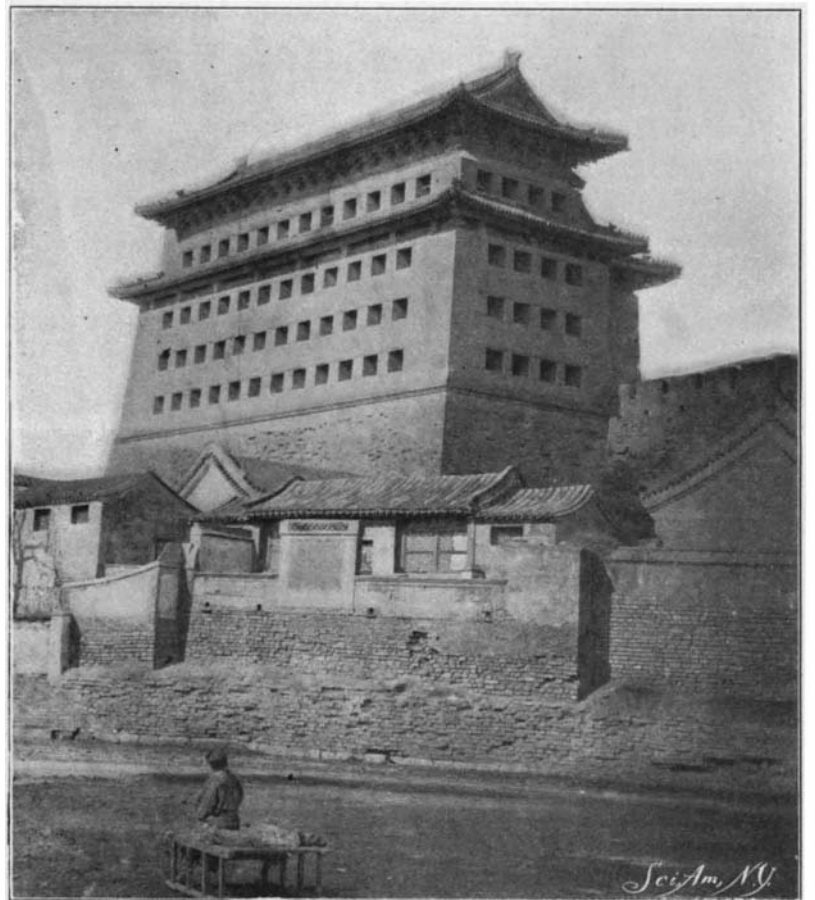
The government of the state is based upon the government of the family. The supreme direction of the Empire is vested in the privy council or grand council. The administration is under the direction of a cabinet comprising four members, two of Manchu and two of Chinese origin, besides two assistants from the great college, who have to see that nothing is done contrary to the civil and religious laws of the Empire. These members are called ministers of state. Under their orders are seven boards of government, each of which is presided over by a Manchu and a Chinese. The boards are: 1, for civil appointments; 2, for revenues; 3, for rites and ceremonies; 4, for military affairs; 5, for public works; 6, criminal jurisdiction; 7, admiralty board. Independent of the government, and theoretically above the central administration, is the Board of Public Censors, which consists of forty or fifty members under two presidents. They are privileged to present any remonstrance to the sovereign, and one of them must be present at the meetings of each of the Government boards. Each of the eighteen provinces is governed by a governor-general, who is responsible to the Emperor for the entire administration, political, judicial, military and physical. He is assisted by a council and other officials. Each province is subdivided into departments, ruled by prefects, and each department into districts, each under a separate ruler. Each town and village also has its governing body, and among the various rulers there is a

regular gradation in rank, each being responsible to his immediate superior. Political office in the general administration of the Empire is less sought after than



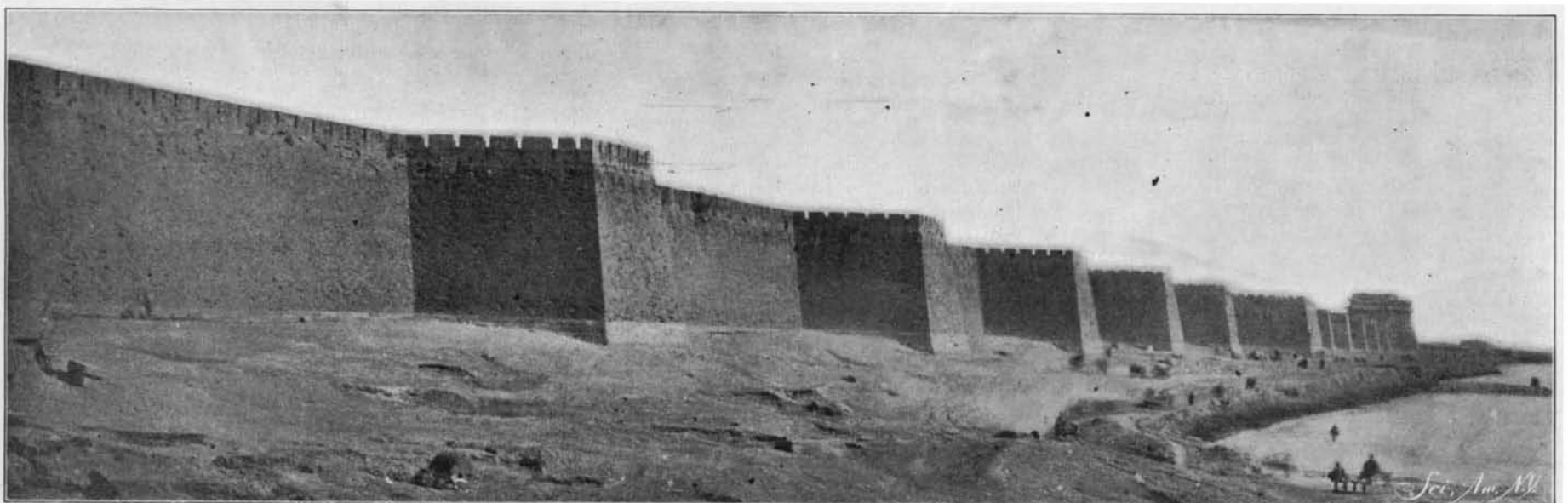
A CHINESE SAWMILL.

the position of viceroy or governor in the provinces, where there are opportunities of acquiring wealth. The number of foreigners resident in the open ports of China was 13,421 at the end of 1898, British subjects predominating. About a half of the total number of foreigners reside at Shanghai.



TOWER OF CITY GATE, PEKING.

Three religions are acknowledged by the Chinese as indigenous and formally adopted: Confucianism, Buddhism and Taoism. The Emperor is considered the High Priest of the Empire and can alone, with his immediate representatives and ministers, perform the great religious ceremonies. Confucianism is the State religion. With the exception of the practice of ancestral worship, which is everywhere observed throughout



CITY WALL OF PEKING, SHOWING THE MOAT.

the Empire, and was fully commended by Confucius, Confucianism has little outward ceremonial. The study and contemplation and attempted performances of the moral precepts of the ancients constitute the duties of a Confucianist. Buddhism and Taoism present a gorgeous and elaborate ritual in China. The bulk of the people are Buddhists. There are about thirty million Mahommedans, one million Roman Catholics, and fifty thousand Protestants. Most of the aboriginal hill tribes are still nature worshippers.

The army of China comprises "the Eight Banners," nominally containing about 300,000 men. The national army whose nominal strength is about 550,000, has about 200,000 available for war. Besides these forces there are mercenary troops ready in emergencies and Mongolians and other irregular cavalry. The latter are nominally 200,000 strong, but like everything else in China they largely exist on paper. They number really but 20,000 and are of no military value. The total land army on a peace footing is put at 300,000 men, and on a war footing of about 1,000,000, but the army, as a whole, has no unity or cohesion. There is no proper discipline, the drill is merely physical exercise, and many of the weapons are long since obsolete; but since April, 1895, British firms have shipped to China 71 guns of position, 123 field-guns and 297 machine-guns and a German firm has supplied China with 460,000 Mauser rifles and 3,000,000 rounds of ammunition in the same period. From this it will be seen that the Chinese are not as backward, as regards war material, as has been supposed. Supplies of ammunition for the guns have been adequate. The Chinese navy during the war with Japan disappointed those who regarded it as an effective fighting force. Some modern vessels have since been added to the fleet.

Peking is at once interesting, despicable, superlatively beautiful, disgustingly filthy, and, in short, a city of contradictions. Originally a Tartar encampment, begun by the hordes that swarmed to the eastern part of China, Peking soon became a fortified city of much strength. Here the Tartar rulers lived, surrounded by their Manchu followers—fearing the white man's usurpation far less than the numerical preponderance of the Chinese. So, in order to protect themselves from unexpected assault, they constructed a huge wall around their city—for China is a land of walls—and for a time lived in tolerable security.

Gradually, however, the Chinese, realizing to some extent their power, began a rival city adjoining the Tartar fortress. They, too, built a wall, and, as the Tartars did, whenever a workman died, his body was entombed within the wall. In this manner, it is estimated, that one million human beings found their last resting places in the walls surrounding Peking.

While the Chinese city is of much interest, both from a sociological and architectural viewpoint, yet the Tartar city is the more important, for within its precincts is the "Forbidden," or Purple City, where lives Kwang Su, the unfortunately progressive monarch of the Chinese. The Forbidden City is a city of night, for there the denizens of the palace of the Son of Heaven awaken and begin their life.

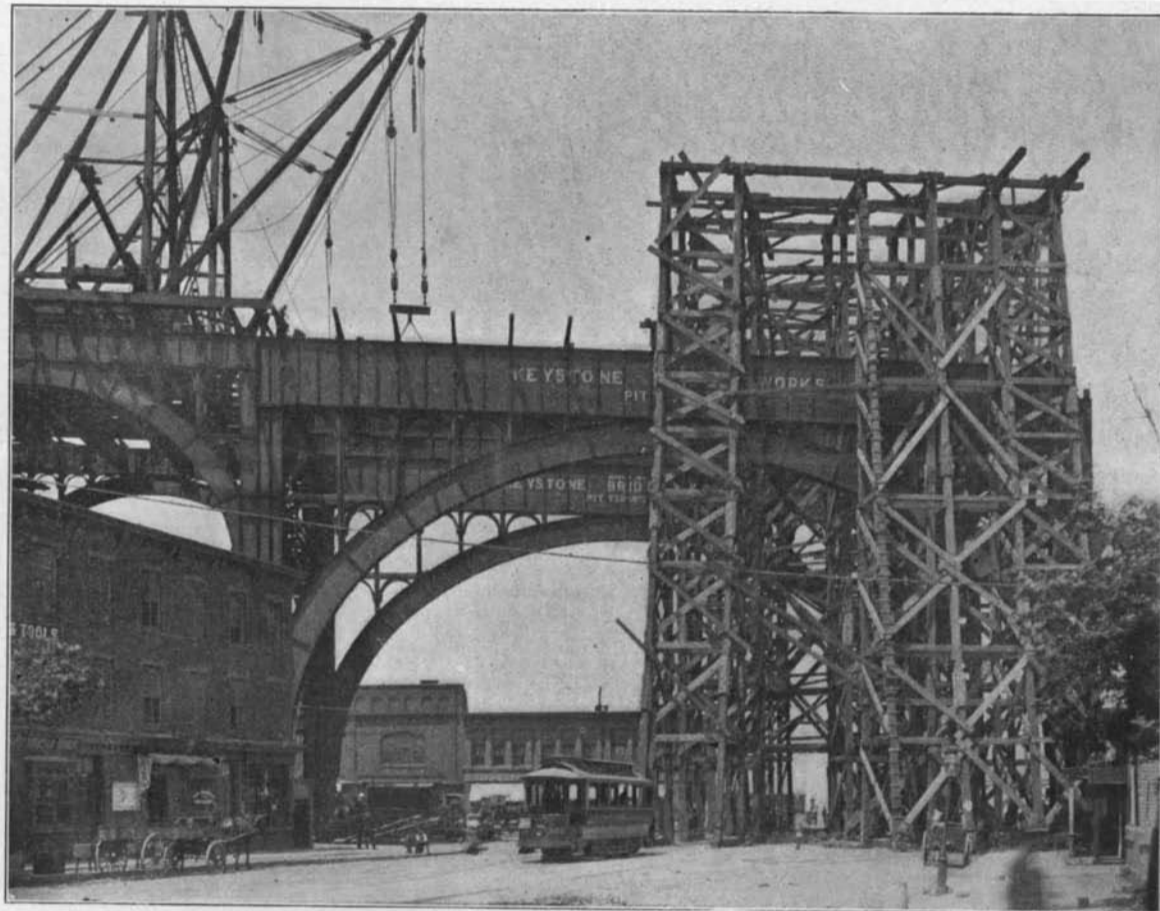
Little is known of the Forbidden City, for within the memory of man not half a dozen whites have entered it. All that is known is that it contains the palaces of the Emperor, and, what is perhaps more interesting, the famous coal hill. This immense heap of coal was accumulated for use in case the city was besieged. The hill is several hundred feet high and contains hundreds of thousands of tons of coal.

Whenever the Emperor was about to leave the Forbidden City, for some religious or State function, the legations of the foreign nations have been notified, so that no unholy eye might rest upon the puny form and sallow face of Kwang Su. The entire route to be traversed was curtained off and thousands of soldiers line the so-called streets, so that no Peeping-Tom could ply his trade. But despite all such precautions, the well-known Oriental propensity for money, exceptionally strong in the Chinese, enabled foreigners to see Kwang Su at close range. They beheld a shrinking, slight figure, dressed plainly and utterly eclipsed by the gorgeous apparel of his retinue.

The rest of Peking is very much like all Chinese cities—picturesquely confusing and terribly dirty. Streets run in the most bizarre fashion, totally oblivious of their beginning and end, aimlessly wandering from bad to worse, fringed on both sides by hovels and palaces, in confusion. Dogs and pigs meander about, jostle equally offensive beggars and unkempt children; stuffy litters, suspended on long bamboo poles and carried by coolies, make life a burden; odors, concentrated beyond the power of descriptive writing to portray, overwhelm the nostrils; the effluvia of ages of non-sanitation, drawn heavenward by the torrid sun, spreads disease; the chatter of a thousand guttural Mongols and Chinese is intermingled with the yelping of the dogs, the squealing of the pigs, the screaming of the children, and the loud cries of the coolies—such is Peking.

Of course, there are parts in the outlying hills where the rich mandarins and merchants live, where true Oriental luxury can be found. There, magnificent palace-like dwellings dot the landscape, surrounded by idyllic gardens. The art and imagination of the Chinese architect have found full scope for his talent, and as a result these habitations are a credit, externally and internally—all save the sanitation, of which the Chinese are in blissful ignorance. Yet the wealthy Chinese has luxury, even though a coolie takes the place of an electric fan to cool his fevered brow.

Taken all in all, China and the Chinese make an interesting study from any viewpoint, but it is wrong to underestimate their brain power in such study, for they are far more advanced than is generally conceded.



One end was lifted from the traveling derricks and the other from the timber falsework.

LIFTING THE 130-FOOT GIRDERS INTO POSITION.

Let China be civilized, and the world will witness as great a metamorphosis as that which so astonished the world when Japan emerged from her chrysalis of Middle Age conservatism and provincialism.

RIVERSIDE DRIVE VIADUCT, NEW YORK.

The handsome viaduct which is now being constructed across Manhattan Valley is being built for the purpose of connecting Riverside Drive with the important system of driveways which encircles the northern end of Manhattan Island. When it is completed the citizens of New York will be provided with a continuous high-level boulevard, reaching from Seventy-second Street and the Hudson River to the western end of Dykeman Street, on the Harlem River, a distance of 7¼ miles. As the latter thoroughfare is practically the northern terminus of the Harlem River Speedway, which is some three miles in length, the completion of the Riverside Drive viaduct will afford a continuous drive of ten miles along the picturesque banks of the Hudson and Harlem Rivers.

Manhattan Valley has a width of about a third of a mile and is intersected by six different streets, one of which constitutes the main approach to the Fort Lee ferry and is traversed by horse and electric trolley lines, the latter fact alone rendering the valley unsuitable for the construction of a public driveway at the level of the streets. On the north the valley rises abruptly to Washington Heights, a ridge or tableland which extends northward between the Hudson and Harlem Rivers to the extreme limits of Manhattan Island. Around its western and northern bluffs winds

a most picturesque driveway known as the Boulevard Lafayette. This boulevard and the Riverside Drive to the south afford magnificent views of the Hudson River, which is here flanked by the lofty cliffs of the Palisades on the west and the richly wooded heights of Manhattan, Spuyten Duyvil and Yonkers to the east.

The viaduct, which has been designed with a view to its harmonizing with the features of the surrounding country, is a steel structure whose total length, including the masonry approaches at either end, is 2,074 feet. The southern approach is located just below Claremont, a villa rich in historic interest, which is situated in the loop which at present forms the northern terminus of Riverside Drive. Immediately to the south of Claremont rises the massive pile of the Grant Memorial Tomb. This entrance to the drive will be carried on a masonry approach 262 feet long. The steel structure, 1,564 feet in length, consists of a series of steel arches of 65 feet span carried on steel latticed piers. The roadway, 60 feet in width, is constructed at an elevation of about 75 feet above the ground level. Ten-foot sidewalks, supported on brackets, are provided on each side of the roadway, and at regular intervals balconies are built out from the sidewalks to afford places of rest and observation. The southern entrance is widened out and bounded with a semicircular wall, in the center of which stone staircases lead down to the lower level of the valley. The masonry of the approach is finished in coursed ashlar limestone, while the pedestals, copings, capstones, etc., are of granite, hammer-faced. The 65-

foot arches of the viaduct, which are 3 feet in depth, are of latticed plate-girder construction and are rectangular in section. The steel columns are oblong in section, measure about 3 by 5 feet, and are also of latticed plate-girder construction. The floor is carried on floor beams 5 feet in depth, of which there are six to each span, and upon these are thirteen rows of 12 inch longitudinal I-beam floor joists. Above the joists is a solid floor of riveted ¾-inch buckle-plates. The plating of the roadway and sidewalks will be covered with a paving composition of coal-tar residuum and broken stone, and upon this will be laid the asphalt surface.

From a structural point of view the most interesting feature is the large semicircular arch of 130 feet span by which the viaduct is carried over Manhattan Street. In its relative proportions this span is exactly similar to the smaller 65-foot spans of the viaduct. It will be noticed that the plating of the columns is carried up in every case between the spandrels of the arches to the level of the under side of the longitudinal plate girders which carry the floor system. These plate girders are designed to carry the whole of the dead load of the floor system, and they have been so nicely calculated that when the bridge is completed their under side will just touch the crown of the arches. Most of the live load that comes upon the bridge, consequently, will be transmitted directly to the arches and carried by them to the columns.

In the case of the main 130-foot span, the two longitudinal plate girders were necessarily of massive proportions, as can be seen from the small engraving showing one of them in place upon the cars on which it was transported. They are 130 feet long, 10 feet deep and 3 feet wide, and each weighs 62½ tons. Necessarily the work of raising these masses of metal to their place on the columns was a difficult piece of work, which was aggravated by the fact that only a limited number of hours was granted by the street railway company for the necessary interruption of traffic during their erection. The accompanying illustrations show the method by which the spans were lifted into position. A series of trestles, built up of 12 by 12 timbers, was erected at the northern end of the arch, and a pair of powerful erecting derricks was built upon the floor of the viaduct at the southern end of the span. Four hoisting engines were engaged in lifting each span, and at a given signal the huge mass was lifted the necessary 75 feet into the air and moved easily into place on its abutments. What rendered this operation particularly difficult was the fact that the exigencies of