NOTICE OF A RECENT VISIT TO THE GREAT WALL OF CHINA. By J. G. SINCLAIR COGHILL, M.D., F.S.A. Scot.

The two greatest national works ever undertaken in any country, whether regarded from their vast extent or the marvellous engineering difficulties overcome, are unquestionably the Grand Canal, and the Great Wall of China, of a recent visit to the latter of which I propose to give the Society some account.

The Great Wall, commencing at Ning-hai or Shan-hai-Kwan, in the

Gulf of Pechelee, extends westwards through no less than twenty-two and a half degrees of longitude, to the highest source of the Whangho or Yellow River. A mountain chain bounds the great northern plain of China on the north, separating it from Manchuria and Mongolia, and the Great Wall follows the highest ridges of this range of mountains in three portions of its extent, separating into loops enclosing large elevated mountain basins of great extent, the one enclosed by the loop of wall between Nan-Kow and Chan-Chia-Kow, called by the Russians Kalgan, being sixty miles across. The mere limits of its stretch through so many degrees of longitude give a very inadequate idea of its extent, as its course is extremely sinuous, following everywhere the highest and most commanding ridges of the mountain range. It is nearly three thousand miles in actual length, and is known in Chinese as Wan-le Chang or the wall of 10,000 le, a le being about the third part of a mile. In all its extent there are but five passes practicable for the transport of merchandise with any degree of facility; but the two great routes of traffic are the Koo-peh-Kow, or old north pass, which is the best and principal route from Pekin to Manchuria. Through Koo-peh-Kow is the road therefore to Gehol, the great hunting-seat of the imperial family, in fact the Chinese Balmoral, being situated in the native country of the reigning dynasty; and it is also the route to Moukden, a very fine city and the capital of Manchuria. When I was in Pekin on this journey, the great ceremony took place of transporting the official documents connected with the late emperor's reign to Moukden, where the imperial family archives are deposited-in fact, it is the Chinese Simancas. The other great pass is the Nan-Kow or Howkien pass, so called because it is situated on the most southerly bend of the wall, Chan-Chia-Kow being the pass through the corresponding outer or northern bend of the loop. It is also the nearest point of the wall to Pekin and the main route into Mongolia; all the traffic into Siberia by Kiachta and Kalgan traverse this pass, although it presents ten miles of the most difficult road probably in the world. The different portions of the wall exhibit evidence of being of different ages. The Chinese topography says that originally the passes were in the possession of, and were fortified by, the various feudal princes who held the northern portion of the country before its consolidation into the empire. The wall, as a connected work, was completed in the

reign of Chung-Chi-Wang-Che, a contemporary of Alexander the Great; but the southern loop at Nankow and other extensions were effected in the reign of the first emperor of the Tsin dynasty, B.C. 220; and indeed little has been done to keep it in repair ever since except at the passes. It seems never to have answered its purpose as a barrier against invasion, as the Tartars from Mongolia burst through in a flood of invasion, and placed themselves on the throne of the native Chinese dynasty; and in turn they were displaced by the Manchus, who now occupy the imperial seat, who forced their way into the empire through the Koo-peh-Kow and other passes to the east.

I left Pekin at noon of the 12th October 1868 by the Ta-ling-Mun, or north-west gate, with a party of friends mounted on the excellent native ponies, with three double mule carts containing our servants and baggage. We reached San-Chia-Tien, sixty le from Pekin north-west, and spent the night. Our road, or rather track, lay north-west through the plain, and we passed several Mogul encampments—the natives resting in their strange conical tents of camel-hair on their way to the capital with the produce of their country, carried, with themselves, on the Bactrian or double-humped camel. We also passed droves of 300 or 400 ponies on their way south. Next day, Tuesday, starting early, we halted at noon at a pretty village on the banks of a stream running into the Peiho on its right bank, called Nien-Ian-Shan, 20 le from where we spent the night, and reached Mi-Yu-tien, a walled town on the Peiho, 50 le further, where we spent the night.

Next day, Wednesday, we reached at noon Hsi-shia-tien, a walled town 60 le further on, on the Peiho, which we had to ford, and with some difficulty. We then entered a series of shallow rocky ravines, traversed by a well-cut road, and fording several smaller streams, and finally, with very little light, the Peiho again, which here comes through the pass between immense bastions in the Great Wall, entered the town of Koopeh-Kow, built in an enciente of the wall, late at night, after a journey from noon of 110 le. Thursday we were early astir, anxious to gain a closer inspection of the Great Wall, which we had had in sight most of the previous day, following the highest crest of the mountains as far as the eye could reach. We first visited the fortifications which close the pass at Koo-peh-Kow. They consist mainly of two large forts, on the margin

The view of the Peiho, on either side, into which the Great Wall runs. from the plain in front, looking up the pass between the towers in the opening of the wall, is exceedingly grand. We then toiled up on the top of the wall to the highest mountain peak above the town. The view was superb, and the noble wall with its frequent towers could be traced with the glass for miles, following the highest ridge of the mountain range east and west. Its dimensions have in many previous accounts been much exaggerated, but not the beauty of its materials and workmanship, and the extraordinary engineering feats overcome in its construction. I made careful measurements, and found it was 14 feet between the parapets, 25 feet at the base, and 50 feet high to the base of the parapet. At intervals of 50 yards, but always on an elevated point, there are square towers or bastions of hewn granite, with heavy granite roofs parapetted. These towers are about one half larger than the wall section, or forty feet square at the base and 30 feet square at the summit. They had circular arched doors and windows, and were intended to enfilade the wall as well as lodge the defenders. Nothing can exceed the excellence of the masonry, and I did not see any showing much signs of age or decay. The wall is everywhere laid on courses of stone, mainly granite, where this material is abundant. The whole structure is completed with it, including parapets and pavement; but elsewhere the material used for the upper courses is straw-burnt bricks, containing a good deal of lime in their structure. They measure $15 \times 7\frac{1}{2} \times 3\frac{3}{4}$ inches, and all the brick and stone work of the wall has been laid and pointed with excellent lime. Having spent part of two days about the pass, we started on our return at noon and reached Hsi-shia-tien, and spent the night. Next day, leaving our old route at Mi-yu-tien, we struck due west along the base of the mountains topped by the continuous line of the Wall to Hhy-yu-tien, a walled town, doing 100 le from our last resting-place. Next day we reached Tang-Shan, the Bath Hill, where there is an imperial palace, with the remains of magnificent furniture, and baths in white marble, all in a state of great decay. The water is alkaline, and the temperature nearly boiling. Our next halting-place was a chow or second class city, Chung-ping-Chow, 30 le south-west from Tang-Shan. Next day we visited the tombs of the Mingr dynasty-the Medici of China, who gave place to the present Manchu Avnesty Next right we reached Nankow, at the southern end of the

pass. The pass, which at one time seems to have been rudely causewayed, is fully twelve miles long, and defended by three strong lines of fortifications at intervals. The cannon (6-pounders) are here still seen in the embrasures of the Great Wall, but nearly all dismounted. We went up the pass next day to the outer line of fortifications at Cha-tao-ne. The scenery throughout is most romantic. The road is simply a ravine filled with immense boulders; and the only animals that can traverse it laden are mules, asses, and camels, the numbers of which, streaming in both directions through the pass, was incalculable, and did much to mitigate the gloomy grandeur of the scenery. The structure of the Great Wall was here identical with that at Koo-peh-Kow. The only use made of the Wall is purely fiscal. The taxes on all imports are levied at its passes.

I forgot to mention that at Chu-Yung-Kwan, where the road passed through the second line of fortification in the Nankow pass, the arch is covered with an inscription relative to its construction, repeated in some seven different languages, among which I noted Sanscrit, Persian, and Arabic.

The walls of Pekin throw the Great Wall into the shade as far as its dimensions are concerned. The Chinese city is enclosed with a wall 14 miles square, and the Tartar city with one 16 miles square; and within the latter are the walls of the official city or court suburb; and within that again the wall of the imperial palace. The outer wall of Pekin is 75 feet high, and paved with granite. The width at the top would admit six carriages abreast, and the base corresponds. It is kept in excellent repair, and the view from the promenade on the top is magnificent.