

1891. A Jewish colony started at Rehoboth, formerly Khurbet Deirân, and another at Esh Shejarah, near Tabor.
1892. Land purchased for Jewish colonies at Karifeh in Trachonitis, and also at Bustros and Girgis, not far off. Jaffa-Jerusalem Railway opened—September 26th. Rumours of land having been acquired by Rothschild for colonisation purposes at Betmia and Khan esh Sheikh, on the eastern slopes of Hermon.
1893. Athlit colony started by Rothschild.
1896. Dr. Herzl's proposal for the establishment of "A Jewish State" in Palestine.
1898. The German Emperor, William II, visits Palestine. Dr. Herzl comes too.
1899. April—The "Temple" colonists, cheered by the notice taken of them by the Emperor William, determine to purchase land for new settlements, and enter into negotiations with landowners.
1899. October—Immigration to Palestine of a great number of Jews from Bulgaria.
1899. July 15th—Eighth centenary of taking of Jerusalem by the Crusaders under Godfrey of Bouillon.

REPORTS BY DR. CONRAD SCHICK.

THE TOWER OF EDAR.

IN the *Quarterly Statement*, 1887, p. 167, there is a very interesting article on the Tower of Edar, mentioned in Gen. xxxv, 21, explaining also the words in Micah iv, 8 :—"And thou, O ! tower of the flock (Edar), the stronghold of the daughter of Zion, unto thee shall it come," &c. As "the tower Edar" means a place for guarding and protecting flocks of animals, as sheep and goats, where the shepherds might stay at night and during severe weather, and Jerome placed this tower in the neighbourhood of Bethlehem, it became synonymous with the field of Luke ii, 8, where shepherds were keeping watch over their flocks by night when "Lo, the angel of the Lord came upon them, and the glory of the Lord shone round about them : and they were sore afraid. And the angel said, 'Fear not . . . I bring you good tidings . . . for unto you is born this day in the city of David, a Saviour, which is Christ the Lord.'"

From ancient times even to this day this field has been shown in the

fruitful plain about half an hour east of Bethlehem. There in course of time a church was erected, and a convent, which latter has been long destroyed, and the present chapel is made out of the former crypt of the church. There is no valid reason to doubt the genuineness of the place, although it cannot be proved to be genuine. Any heap of stones there, the pilgrims, like Rauholf, considered to be the ruins of the "Tower Edar." Others put the position of this tower more to the north-east, near the "Sir el Ghanem,"¹ nearly two miles from Bethlehem, as there are ruins, cisterns, &c., and the name denotes "the sheepfold."² I have visited these places and all the neighbourhood round about, and meditating on the matter, I could not understand how Jacob could pitch his many tents beyond these places, as there are deep and rocky valleys unfit for encampments, and even if the camp were put in some corner, where is water for the people and the animals to be got? Also it was not on the road from Rachel's tomb to Hebron. So, for the real site of the tower of Edar, a more fit place has to be looked for. This does not alter the spiritual ideas nor the proper site of the shepherds' field, for there existed throughout the land many flock-towers, and places where flocks may stay at night, and we are not bound to the one mentioned in the history of Jacob, or to the tower of Micah iv, 8.

Dr. R. F. Hutchinson, in the paper referred to, says on p. 168 :—"As to recovery of the site, I fancy the remains of the tower may still exist, probably on the road from Jerusalem (to Hebron), 1,000 paces from Bethlehem, and not at the monkish site in a valley, half an hour east of Bethlehem." He speaks then of a circle, which he drew on the large map, having a radius of one inch, equal to an English mile, round Bethlehem. In this circle falls the tomb of Rachel and some other places. "On a nullah half a mile south of the Church of the Nativity at Bethlehem stands a watch-tower without a name, and a little farther south are the eminences, Bâtn Fakûs and Hindâzi. These are all the sites within the Bethlehem circle," and agreeing with Jerome's 1,000 paces. "Does the nameless watch-tower represent that of Edar?" I would answer, No, as it is not on Jacob's track to Hebron, and as I think even too near Bethlehem and Rachel's burial place. After Rachel was buried, Jacob journeyed on, not beyond Bethlehem, as it would be if any of these places were the tower of Edar, but certainly to a place where water and pasture might be got. So I think it was more than 1,000 paces distant. Either Jerome made a mistake in his estimation, or had the wrong place in view, clinging to the "shepherd's field" east of Bethlehem. On the main road from Rachel's tomb to Hebron there are, as it seems to me, two places where Jacob may have pitched his tents and stopped for a few days: first near the pools of Solomon, and second in Wady 'Arrûb. The third would then be Hebron or its neighbourhood, where also there is abundance of water. So I would suggest that the old "tower of Edar" stood at or near to the

¹ See "Memoirs," iii, p. 55.

² "Name Lists," p. 311.

present castle,¹ at the head of the pools of Solomon, and that Jacob pitched his tents in the little plain there, south of the pools. Here are the several springs and so abundance of water, and food for the flocks and herds on the hillside round about. The names of these springs are not mentioned in the Bible, but as afterwards their water was carried to the temple at Jerusalem, the Talmud² calls it "Etam," and as in the time of the Kings, there was a city in the neighbourhood called Etam (2 Chron. xi, 6), this name may also have been applied to this place in ancient times. Now Edar and Etam are the same syllables, only that *r* be an *m*, as Sychor = Sychem. So that even this would bear on the matter. To the water all flocks and herds from the neighbourhood around would come to drink, and a watch-house or watch-tower would be needed. Without doubt there was one in all ages at these springs, and it would be still more necessary after the pools had been made. So although the present castle at the pools is comparatively modern, a similar one probably stood there before it. This suggestion renders the Bible narrative clear, which is not the case if the tower of Edar be put nearer to Bethlehem, and on the east far away from the main road. The tower at a place like that of the springs at Solomon's pools would be known by all, as well as the water, and hence might rightly bear the name "Tower of Edar," or of the place where the flocks assembled.

NOTES ON THE DISCOVERY OF A LARGE CISTERN NORTH-WEST OF JERUSALEM; OF A PERPENDICULAR SHAFT IN BISHOP BLYTH'S GROUND; OF SOME CARVED STONES IN THE MURISTAN.

1. A very large ancient cistern, with rounded corners, has been found on the north-west of the city, near the road going towards the ash heaps and Nebi Samwel. In the same neighbourhood, on the contour line numbered 2,579 on the Ordnance Survey map $\frac{1}{25000}$, between the road and the "old cistern," was discovered "one of those deep holes or clefts in the rock strata of which several have been found on this side of Jerusalem."

2. About 24 feet south of the well mouth, in the centre of the Damascus road, where it branches, west of the so-called "tombs of the kings" north of Jerusalem, a perpendicular *shaft*, cut into the rock, and 36 feet deep, was discovered on the ground of the English Bishop, Dr. Blyth. The shaft is about 50 feet north of the tomb examined and described by Mr. A. C. Dickie in the *Quarterly Statement*, 1896, p. 305, *et seq.* The tomb is 18 feet deep, and hence this newly discovered shaft is double its depth, and about 8 feet deeper than the level of the *sunken court* east of the entrance to the said royal tombs. There was water in the shaft for several feet high, as in a cistern, so the lower end could not be examined. I thought at first it may be only a second mouth of the cistern the mouth of which is in the centre of the street, at a level of

¹ "Memoirs," iii, p. 91.

² Yoma, 81b.

2,511 feet above the sea, but on finding the surface of water in both of a different height, this cannot be, and I came to the conclusion that it was to collect the water accumulating in the lower tombs of the kings, to keep them dry, and that the water would from time to time be drawn up by buckets from the shaft. However, it wants more exact examination. I do not know how far Dr. Bliss and Mr. Macalister have examined the matter and reported on it.

3. The removal of the earth from the Greek part of the Muristan is going on again, and several interesting carved stones have been found, of which (if God permit) I will more fully report in my next and illustrate with drawings. The shaft leading to the stair by which Sir Charles Warren found the underground large tanks in the year 1865,¹ and myself at the time have measured, is not laid bare; when it is, someone will be able to go down and make fresh measurements.

DERIVATIVES OF THE ANCIENT CUBIT OF 20·6109 INCHES.

By Lieut.-General Sir CHARLES WARREN, K.C.B., F.R.S.

If we take consecutively 18, 12, 11, 9, 8, 7, 6, 5, tenths of 70,000 cubic inches (the content of the ancient double Royal cubit (20·6109 inches) cubed) and extract the cube roots we obtain the following cubits: 25·065, 21·89, 21·26, 19·89, 18·29, 17·30, and 16·34 inches. If we take four and five-sixths of 70,000 and extract the cube roots we obtain cubits of 18 and 19·39 inches.

With six-sevenths, 19·57 inches, and with $\frac{64}{70}$ we obtain 20 inches.

When these are compared with those found by Petrie from existing remains all over the world, in "Inductive Metrology," it will be found that the whole of the cubits he mentions are accounted for except those mentioned under columns "Digit," "Copass," and "Various" in his table at the end of the book. A table is attached showing the results obtained.

The following interesting points will be noticed:—

The most ancient cubit ranking after 20·6109, so far as we know at present, is that of Gudea, 19·57 inches.

¹ "The Recovery of Jerusalem," p. 272.