

passages leading from the stairs. The side walls at this point are from 8 feet 6 inches to 10 feet in height above the floor line. One curious circumstance was noted in the digging. The floor was covered with a deposit of over twelve inches of dust, which had evidently accumulated after the desertion of the building, and before the roof had fallen. The *débris* above was a simple mass of broken bricks fallen from the walls and roof. Some earthenware ridge roof-finials (figs. 2 and 3, Dr. No. 778) and a large number of small earthenware saucer-shaped lamps were found. The use of these in such numbers must have given rise to the name *dipoldinne* (mound of lamps) usually applied to Buddhist mounds as mentioned by Dr. Burgess.* On the back stair was found an iron implement for mixing lime (Dr. No. 778, fig. 6) and an angle iron with spikes (*ib.*, fig. 7). The depth at which these were lying, shows them to be genuine relics.

* *Amāravati and Jaggayapēta stūpas*, p. 21.

At the front, almost the whole of the vertical portion of the doorway remains on the left side. On the top is seen a slight stepping out of the bricks, showing it to be the springing of the arch. The right side is a few feet shorter. The doorway is recessed back from a massive projection on each side, and has a jamb of moulded bricks forming a semi-octagonal pilaster up each ingoing. On each side of these was a statue; a fine one of Buddha (Dr. No. 772, figs. 1 and 2) on the left and another stiffly carved figure in stone on the right (Dr. No. 778, fig. 1). These stood in niches above the basement. The basement of the building has an elaborate series of moulded courses in brickwork (See Dr. No. 777, fig. 1). Great care has been taken in having a broad and secure foundation. Above it are sub-base, base, and sur-base, each with its projecting string or cornice courses. The upper base has remains of a series of T moulded bricks placed on their sides, leaving two rows of small openings. These, it is presumed, were for the reception of some of the small lamps so profusely found in the building. These lighted at night would give the chaitya a very effective appearance. The date of the building may be about 50 A.D.

III.—Further Excavation at the Stone Stūpa.

(Dr. No. 775).

The stone stūpa in mound No. 7 which was partly excavated during the previous season has now been wholly uncovered. The mound, as before remarked, is composed largely of packed stones and earth, so that the digging of the trench, which has now been carried round the building, was of a rather laborious nature. The floor line is, at one point, 13 feet below the surface of the mound. The top portion of the dome is ruined, evidently the work of treasure-seekers who had dug a hole down through the centre, and leaving it thus, numbers of the stones forming the masonry of the dome had fallen in and again filled it up. This was proved by the first season's fruitless search for a relic casket; and again by the casket itself having during the present year's operations been found standing on another portion of the top of the mound covered by a quantity of earth. The searchers had found it, but it evidently was not the object they were digging for. They had expected treasure below, and, removing the casket to the surface, the result of the subsequent digging was, that it was covered with the removed earth, and luckily forgotten.

The stūpa stands on a carved platform. My funds were insufficient to widen the trench far enough to show the full plan of its platform, but on the east side where it was fully exposed, it curves with a much greater radius and from a different centre to that of the walls of the stūpa itself (See Drawing No. 775, fig. 2). It would thus seem that more than one building had stood on this curved basement. The trench on the east side laid bare a portion of the foundation wall of an adjoining stone stūpa of about the same diameter. Adjoining it is another small square stone building. Near the surface of the mound, above the spot now occupied by the north trench, was a stone relic casket (Dr. No. 778, fig. 4). It is cylindrical in shape with moulded top and bottom, and slightly convex. The cavity was filled with earth, and at the bottom were the following relics—several pieces of a corroded copper vessel, which has evidently been cylindrical to judge from the largest portion (fig. 5-e), and about 2½ inches in diameter; a large white crystal hexagonal double-pointed bead (fig. 5-a); a miniature gold bowl (fig. 5-b); and two small gold ornaments (fig. 5-c-d) inside the gold bowl. The stone cylinder found the previous year may have been the cover of this casket. On the floor of the stūpa, the following objects were found,—a portion of the crowning stone umbrella with lotus ornament in centre (Dr. No. 773, fig. 2)—the pillar found the previous season (*ib.* fig. 1) is seemingly the shaft which supported it—; a hemispherical stone with aperture on the apex, perhaps the dome of a miniature dāgoba (*ib.* fig. 4); a stone dāgoba (*ib.* fig. 3); a long stone with three carved heads (*ib.* fig. 5); a piece of a circular pedestal on a square base (*ib.* fig. 7-a and b); a portion of a stone rail-post with slots for the cross-bars (*ib.* fig. 8); a marble slab with a figure of Buddha (Dr. No. 772, fig. 3-b); and the arched upper part of slab which seems to fit the above (*ib.* a). The simplicity of construction in this stūpa and the archaic style of the marble sculptures mark it as of very early date, probably during the first century of the Christian era.

of destruction by burning or burying. His report would have been more valuable, if he had furnished an estimate of the area over which a given quantity of the liquid of a specified strength has been applied with successful results, also particulars of the period that elapsed after the first application before the plant was killed.

3. Mr. Brodie applied it first of the full strength, but in the proportion of 240 gallons to the acre instead of 20 or 80 lb. instead of 6 $\frac{3}{4}$, the quantity named by the proprietors as sufficient; this would make the cost for the material alone nearly £2 10s. per acre, but the prickly-pear was very dense and cost £6 per acre by the ordinary mode.

4. In experiments 2, 3 and 4, the quantity used is not furnished. This is a matter that materially affects the value of the "Scrub Exterminator."

5. As Mr. Rudder states that he found the mixture in the proportion of 3 lb. to 40 gallons pretty effectual, it is probable that the larger quantity has the effect of merely accelerating the process, and is not really necessary.

6. The matter now awaits report of the Inspector of Forests respecting the vitality of the seed after the plant has been treated.

7. In the meantime, Inspectors Rudder and Brodie may perhaps be asked to supplement their reports in regard to the points noted above.

8. It may be pointed out that the success of the "Scrub Exterminator" must, in those cases, where it can be applied without danger, materially affect the question of leasing or clearing lands infested with the prickly-pear.

ORDER—dated 6th September 1889, No. 764, Revenue.

Miscellaneous.

Communicated to the Local and Municipal and Public Works Departments, to the Commissioner of Revenue

Settlement and Director of the Department of Land Records and Agriculture, and to the Government Botanist.

(True Extract.)

(Signed) C. A. GALTON,
Secretary to Government.

To the Commissioner of Revenue Settlement, Land Records and Agriculture.
,, the Public Works Department.
,, the Local and Municipal Department.
,, the Government Botanist.

Exd. A. D. Xavier.

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P.W.D. 1889

GOVERNMENT OF MADRAS.

PUBLIC WORKS DEPARTMENT.

Buildings and Roads. Military Works.

READ—the following paper :—

From Brigadier-General E. COLLEN, Secretary to the Government of India, Military Department, to the Secretary to the Government of Madras, Public Works Department, dated Simla, 11th September 1889, No. 1820 M.W.

With reference to your endorsement No. 1969 W., dated 22nd July 1889, and in continuation of Military Department telegram No. 1819 M.W., dated 11th September 1889, sanctioning the conversion of the main guard with the adjoining officers' quarters into barracks for single men at Fort St. George conditionally on this being the only present expense involved, I am directed to ask that, under the orders of the Governor in Council, the Government of India may be furnished with a report showing exactly what is required beyond the conversion above referred to.

ORDER—dated 30th September 1889, No. 2733 W., Public Works.

Communicated to the Superintending Engineer, V Circle, and to the Military Department, in continuation of G.O., No. 2600 W., dated 19th September 1889.

2. The Quartermaster-General will be requested, under the orders of His Excellency the Commander-in-Chief, to submit the report called for.

(True Extract.)

(Signed) R. R. E. DRAKE-BROCKMAN, Lt.-Col., R.E.,
Ag. Joint Secy. to Govt., P.W.D.

To the Superintending Engineer, V Circle.
,, Military Department.

Exd. J. Moses.
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