1879, the Engineers and Natal Pioneers working eight hours, the Infantry and Naval Brigade six hours, and the Native Contingent eight hours; the latter were only employed in clearing the ground.

The strength of the parties were—Royal Engineers, 50; Pioneers, 40; Infantry, 140; and Natives, 250.

On Sunday, the 26th instant, the working hours were reduced for the day, excavation of ditches and hurdle revetting being the work in hand.

Similar work was continued till mid-day on the 28th instant, when, in consequence of the receipt of adverse news from the Lieutenant-General Commanding, it was decided to occupy the fort at once, and withdraw the troops from their encampments into the fort. The work was pressed on as much as possible, but the immediate occupation of course delayed the completion of the revetments, slopes, &c.; and as several alarms occurred during the following days, involving cessation of work, and the use of temporary expedients, such as tents, blankets, &c., for completing the parapets for immediate use, the time taken in constructing the work was necessarily much greater than it would otherwise have been. Wagons loaded with provisions and other stores were used to form (*sic*), and as soon as possible the provisions were removed to store, and the sacks filled with earth and replaced on the wagons. Nearly all these wagons remained in their positions till the evacuation of the fort, and do not appear to have been injured in any way. Shelter for the troops was formed under and in front of the wagons, by stretching out the tarpaulins, and also by throwing spare tarpaulins over frameworks of poles, &c.

The church was loopholed, and a gallery formed for the defenders so as to interfere as little as possible with the use of the floor space for hospital patients. Platforms were made for four guns and one Gatling gun, as shown on the plan; blindages of sand bags resting on frames of timber being provided for the protection of the gunners.

The greatest difficulty lay in providing for the permanent protection of the large number of wagons and oxen which the severed communication with Tugela left on our hands. At first the oxen were driven into the ditches and into a laager of wagons formed in the shape of a ravelin on the south face; they escaped, however, from the ditches unless constantly watched, and the wagon laager screened so much of the direct fire of the south face that it was subsequently abandoned and reformed in the deep kloof at the west side of the fort, so that the fire from that face was not marked. Here, however, the slopes were too steep to allow good standing ground for all the oxen, and after a few days' experience about half the cattle were removed from the laager and tethered at night on the south glacis. In the middle of March the laager in the kloof was abandoned, and two circular laagers formed on the reverse slopes of the valley on the south side of the fort. It will thus be seen that the presence of so many cattle, which was not contemplated when the fort was traced, was really the chief difficulty to be considered in arranging for the defence of the fort. The horses were picketed in the ditch of the north face.

Three bridges were provided. One at the main gate was a rolling bridge with a wagon roadway. This bridge was run in every night, and though subject to very heavy traffic, no difficulty ever occurred in working it. It was designed and erected by Lieutenant Main, R.E.

A drawbridge for foot passengers was provided at the north-east angle, as this was the shortest way from the fort to the water. It was called the water gate. A temporary bridge was constructed near the stockade to facilitate access to the cookhouses, &c.; on the glacis the parapet was crossed by steps, and no opening made here.

The flank defence of the south and west faces was effected by constructing the caponiers shown on the plan, that of the north face by constructing indents near the re-entering angle where the prolongation of the escarp cut the crest of the adjoining parapet.

The stockade flanked the south-east ditch, and the north-east ditch was left unflanked, also parts of the stockade ditch; the greater portion of these undefended ditches was staked, so as to render a rush more difficult.

Trou de loups were formed on the east faces and wire entanglements on parts of the south and north faces.

The drainage from the fort was carried into the ditch by openings left at the eastern salient and stockade, these being the two lowest points; from the ditch the water was carried into the stream on the south side by a large drain, eleven feet deep at the counterscarp; the glacis was made good over the upper portion of this drain.

There was a great deal of heavy rain, and the main openings were amply large enough for carrying off all the water, but there was room for a great deal of improvement in the many small drains which existed in the fort.

There was no foul drainage to provide for, as urine tubs and metal earth-closets were used by night, and by day the latrines, &c., outside the fort were alone allowed to be used.

All refuse within the fort was removed every morning and buried outside.

The nature of the surface soil (about four feet of vegetable mould) rendered communications and paths about the fort very disagreeable in wet weather. A gravel pathway was made near the water gate, and the road through the centre of the fort to the main gate was in course of being macadamized. The stone could only be obtained in large blocks, and a good deal of labour was required in breaking it.

The question of hutting the troops was considered as soon as the defences were considered complete, and at the end of February a hut 33 feet long and 20 feet wide was commenced near the south-east angle; this hut was only just finished in the beginning of April, when it was decided to use it only for stores. The design at first provided for a traverse in the centre constructed of wattles filled in with earth, but this was found impracticable and abandoned. The slow progress of this work was due to the difficulty experienced in getting straight timber for the frame work and roof, to the wet weather and to the pressure of other works; the walls and roof were formed of timber with hurdles between the uprights, and a hurdle roof, the whole plastered with a mixture of cow-dung, clay, and grass. Later on, a hut of simpler construction was erected near the main gate, omitting the earth traverse; the roof was formed by stretching a tarpaulin over the rafters, and the sides were not daubed. This hut was occupied for a few days and appeared to answer well. The difficulty experienced in obtaining suitable timber showed that huts could not be constructed in a reasonable time, and it was decided to use tents, and to construct parados of timber in short lengths, the waggons being removed as the parados were finished.

This work was commenced, but the evacuation