Lieutenant Pichard made some excellent shell practice from the Armstrong guns, and also Sergeant-Major R. Hayes. The mortar battery was situated outside, on the right of No. 7 Redoubt, and in order to harass the enemy as much as possible, firing was carried on during the night, at uncertain hours, and the mortars were laid on different positions, so that they could never tell when and where the shell was coming. The practice of the mortars was very good, the shells dropping in their pits both in the pah, and on the hills to the right, burying and destroying everything near them. Captain Strover had command of the mortar battery, the mortars were fired, at intervals, during the whole day, whenever there were any signs of the presence of the natives in their pits. On Saturday an attack was made on the extreme right, and a 9-pounder gun accompanied a detachment of the 40th Regiment, and began by firing some rounds of common case into the bush, and subsequently, on the natives retiring to their rifle pits on the edge of the wood to the right, some shrapnel shells were sent amongst them; some time after the firing ceased on the part of the enemy.

On Sunday afternoon, I deeply regret to say, Lieutenant E. C. Macnaghten, R.A., was killed whilst laying a cohorn mortar in the extremity of the advance parallel, the ball passing through the wrist and entering the chest; he died almost immediately, firing his last shot on the anniversary of his firing the first one in this war; he had ably conducted the firing of the cohorn mortars, since the advance of the sap from No. 8 Redoubt, and had been in every engagement throughout the whole war. We were deprived of his most valuable assistance, and the Service has lost in him a most brave, efficient, and able officer; he was beloved by all.

Sergeant J. Christie, R.A., a first-rate noncommissioned officer, was wounded in the shoulder in the advance parallel, early on Monday morning, whilst I was arranging with him about carrying on the practice. Some time afterwards, observing a "red war flag" hoisted on a hill to the rear of the pah, some 1900 yards distant, and also perceiving some natives working as if they intended to occupy a new position of rifle pits, when they would be obliged to retreat from the pah, the guns were laid, and some Armstrong shells, with time and concussion fuzes were sent amongst them; one of these shells burst at the foot of the flagstaff, when they immediately hauled down "their flag," and it was not hoisted again. This is the only occasion I fairly got a good sight of the enemy. I could see them in relief against the sky on the crest of the hill. I suppose they imagined they were out of range; but when they found the shell dropping amongst them they disappeared, and I saw them no more in that direction. The firing from the Armstrong guns and mortars commenced at 6A.M., and continued whenever a favourable opportunity offered until dusk.

The following evidence has been given concerning the action of the Armstrong shell with the concussion fuze only. Colour-Serjeant J. Morant, R.E. was at the head of the sap, and saw an Armstrong shell go through a rifle-pit, about four feet of earth, and burst inside, and heard the enemy shout as in pain. He also observed that the shell of the Armstrong gun entered the rifle-pits as soon or sooner, than the report was heard, so that the natives had not time to get out of the way. Bombardier J. Linger, No. 3 battalion, 12th

brigade, R.A., was at the head of the sap, and in the advance parallel, working the coehorn mortars, when he saw several shells from the Armstrong guns go through the enemy's rifle-pits and burst inside. After the cessation of hostilities, one of the natives told my sergeant-major that they were sometimes able to get out of the way of the mortar or the large shells, but never out of the way of the shell* from the gun "all the same as rifle,"—meaning the Armstrong gun. As the shell was amongst them as soon as they heard the report, these natives have designated the Armstrong shell "the quick shell."

I found it had been the practice of placing every night in the sap-roller an 8-inch naval shell with a friction-tube fixed through the fuze, and a cord attached to it and passing through a hole in the side of the wooden box, and the end of the cord attached to the sap-roller (this was suggested by the Royal Engineers and carried out at their request by the Naval Brigade), so that if the natives attempted to capture the sap-roller, in rolling it, the shell would explode. In the event of their trying to take the sap-roller, I calculated that, in all probability, the main rifle-pits in front of the pah, about fifty yards from the sap-roller, would be lined with natives watching the operation, or at hand to give help to secure the roller if they required more assistance. The trap of the shell succeeded, the natives endeavouring to capture the roller on Saturday night; the shell exploded, on hearing which I left my tent and sent the Armstrong shell amongst them. The Armstrong guns had been loaded and laid on their pits the last thing before dark every night. I also fired the mortars which had been laid on the pah, the shell bursting with good effect. Notwithstanding the skilfully constructed underground works of these natives, I feel certain that the Armstrong shell has searched them out and done execution,-to what extent, of course, I cannot tell. The natives themselves alone know; I have no means of actually deciding. They are very jealous of our knowing any loss they may sustain. The different statements made both by those who were in the sap, as well as by the natives themselves, corroborate the observations taken from the battery; viz., that the Armstrong shell, with concussion fuze only, entered the crest of the enemy's rifle-pits and burst inside. Whether there are few or many natives in the pits at the time cannot be ascertained. On Monday afternoon, an attack was made on our extreme right in the wood. A 9-pounder gun and a 24-pounder howitzer were taken down towards the wood; the former under Captain Strover, R.A., and the latter under Lieutenant Pichard, R.A. The practice with common and shrapnel shell was with good effect after the natives had been driven from the bush to their rifle-pits by a few rounds of common These pits formed a continuation of cover from the Flagstaff Hill to the edge of the wood. Gunner J. Talford was wounded in the leg. He was one of the men serving the 9-pounder gun. During this attack the Armstrong guns were used against the main rifle-pits just in front of the pah to keep down the fire of the enemy on the head of the sap.

At 4 o'clock on the morning of the 19th March, I left the redoubt with an escort of the guard, and fired the two cast mortars at the pah, and two hours afterwards the white flag was flying from it. There can be no doubt of the superiority of the

^{*} This applies to both time and concussion fuze.