

The Martini-Henry Rifle Part Two

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The fact that British volley fire invariably reduced the visibility of the attacking Zulus to the defenders by creating a thick smoke screen has not, to the best of my knowledge, previously been considered by historians. Lieutenant E.O.H. Wilkinson's two revealing observations in part 1 of this article that,

“...we followed suit, firing volleys by sections in order to prevent the smoke obscuring the enemy”, and
“independent firing means in firing in twenty seconds, firing at nothing; and only helped our daring opponents to get close up under cover of our smoke”.

An examination of some of the contemporary paintings of the time, often painted from descriptions given by actual combatants, clearly reveal palls of smoke on various battlefields; these can clearly be seen in, amongst others, C.E. Fripp's painting of *Isandlwana*, De Neuville's *Rorke's Drift*, Lt. Evelyn's two sketches of *Nyezane*, Crealock's *Final Repulse* of Gingindlovu, Orlando Norie's watercolour of *Kambula* and the equally famous *Illustrated London News*' *Square at Ulundi*. I have diligently searched through the 800 pages of the *Treatise on the British Martini-Henry manual* for any reference to such 'smoke awareness'; there is none, although there are numerous references to the myriad of major and minor mechanical difficulties which beset the development of both weapon and cartridges.

Between September 1875 and July 1876, the rifle was extensively tested by the Army at Milton Ranges at Chatham. The units involved were the 3rd Bn. 60th Rifles and the 2nd Bn. Coldstream Guards and apart from the wind and rain, no major problems developed. The soldiers disliked the bleak ranges believing that the location was subject to 'marsh fever' after one unfortunate, Sapper Charles Russell, died there. Incidentally, the Milton Ranges were forced to close due public pressure following the soldiers' popular pastime of 'taking pot shots' at cattle and sheep on the land bordering the range. The Army temporarily transferred the trials to the ranges at Shorncliffe and subsequently solved the 'Chatham problem' by purchasing the land from the Dean and Chapter of Rochester for £16,000.

Could the initial experience of volley smoke at Gingindlovu have been so common that it went unreported for the remainder of the Zulu war? Historians of the following Boer War, nearly twenty years later, certainly know that the Boers were able to successfully shoot British soldiers whose positions were invariably given away by the smoke from their rifles.

As many members know, Isandlwana battlefield sits in a wide bowl ringed by hills which, on a hot day, can be airless and still. It is easy to imagine that, on the day of the British disaster, several volleys could soon have created a thick hanging smoke screen between the British line and the advancing Zulus. It could also account for the relatively few Zulu casualties, not only at Isandlwana but at Rorke's Drift and subsequently through to the final battle at Ulundi. Private Mossop (of Hlobane fame) also alluded to the problem in his famous book *Running the Gauntlet*. He wrote about the matter following the battle at Kambula;

The camp to be defended was large, we had lost a lot of men on Hlobane mountain the previous day. We were armed with Martini Henry rifles charged with black powder, and each shot belched out a cloud of smoke; it became so dense that we were almost choked by it – and simply fired blindly into it. There was one continuous roar from cannon, rifles and the voices of men on both sides shouting. The smoke blotted out all view. It made every man feel that all he could do was to shoot immediately in front of him – and not concern himself with what was taking place elsewhere.

Extrapolating this hypothesis further, could this 'smoke screen scenario' have been the reason for the relatively low expenditure of ammunition during the main battles of the Zulu war? Of course, no one knows the rate-of-fire or ammunition expenditure at Isandlwana but we do know from the various quartermasters' ammunition returns, post battles, the exact quantity of ammunition used during all the other engagements. By dividing the total ammunition fired by the number of trained soldiers involved and again by the hours of each battle, we can approximate the rates of fire, per soldier, for the following major battles;

Battle	Rounds per man per hour	British combatants (ex. native)	Zulu fatalities on or near battle
Rorke's Drift	25	104	500
Gingindlovu	7 rounds (the Marines 16)	3390	1100 (half post battle rout)
Kambula	33 rounds	2086	1000
Ulundi	10 rounds	4165	950 – 1500 (many post battle rout)