

and at Colenso will recognise that the men can have had but a vague idea of the range at which they were hit. At Colenso, for instance, scarcely a Boer was seen, and there were tiers upon tiers of entrenched positions. Usually the shortness of the range is much exaggerated; 250 yards is a common estimate. There is no doubt, however, that the Highland Brigade at Magersfontein were shot down at extremely close quarters. Judging by the results of the experiments made with modern small-bore rifles in England and Germany, the bulk of the head injuries seen in hospital have been inflicted at medium ranges, say 400 to 800 yards. This is really what we should expect, for at close quarters the amount of damage caused by a penetrating wound of the head is so extensive as to be probably fatal.

The more obliquely the bullet enters the skull, the greater will be the amount of damage to the inner tables. If the apertures of exit and entrance are both at a right angle to the plane of the skull, both wounds may seem to be cleanly drilled through the bone, and are scarcely to be distinguished by external inspection. But in all cases the inner table will be more or less broken up at the aperture of entrance; and if the skull is trephined there will be no doubt whatever as to the direction of the wound. Even in a long wound fragments of bone may be found lying along the greater part of the track. In not a few instances where trephining has been done at the front a second operation has been found necessary at the base, and much loose bone removed.

At very short ranges the skull may be burst open to a greater or less extent in the manner which has been shown experimentally to take place. Thus in Colonel Stevenson's work on *Gunshot Wounds* a skull is figured into which a small-bore bullet had been fired at a distance of few yards. I have not the work by me for reference, but believe the distance was ten yards. The skull is seen to be most extensively fractured. The specimen is in the Museum at Netley to the best of my recollection.

The observations made above relate to the calvarium, and instances may now be cited bearing out the foregoing remarks. I have to thank the surgeons for permission to give the following sketches of the cases under their charge. Frequently the patients as they are moved from field to base hospital or on to hospital ships have been under the care of several surgeons, and it is impossible to communicate with all. Moreover often—too often indeed—the patients are shifted about in the base hospitals, and it is far from easy to follow out a particular case without giving much trouble to the much over-