without any proper examination of the supposed dead, or any serious attempt to restore animation; (d) that cases have been discovered where a certificate has been given by a medical man who has not seen the deceased for months before his supposed death, and in one case a death certificate of a woman was given merely on the ground that she was not expected to recover.

2. That this Committee urgently recommends a change in the law as follows: (a) That no burial shall take place without a medical certificate stating that every attempt has been made to restore animation but in vain, and that the certifying medical man has carefully examined the body, and certifies that putrefaction, the only unequivocal sign of dissolution, has begun; (b) that for sanitary and other reasons waiting mortuaries, where the apparently dead can be deposited as in Germany, should be established as soon as practicable.

We cordially agree with the portion of the resolution recommending that no burial shall take place without a medical certificate. It is a public scandal that the law does not require every death to be certified by a registered medical man, and we have already drawn attention to the remarks of Sir W. Foster, M.P., on the matter at the General Medical Council. No burial should be allowed to take place without a certificate of death, and its causes given by a medical practitioner who has examined the body.

It is not necessary to wait for the commencement of putrefaction before certifying the fact of death, as during the period preceding putrefaction various signs of death appear, which, taken collectively, allow of an absolute medical opinion as to the reality of death being given. Although to each of those as a sign of death exception might perhaps be individually taken, yet a medical opinion is formed from a conjunction of these signs, and not from the presence of an individual one. They are (1) the absence of circulation and respiration, (2) the gradual cooling of the body, the extremities cooling first and the trunk last; (3) the gradual super-vention of *rigor mortis*, (4) the production of *post-mortem* stains or ecchymoses. Aided by these signs the recognition of death should present no difficulties to the medical man. It should be the duty of the State to insist that in every case a certificate of death should be given by a medical practitioner after a proper examination of the body, and for the performance of such an important and necessary duty the medical practitioner should in every case receive a fee from the State.

As far as this country is concerned, we are unable to agree with the portion of the resolution stating "that cases of premature burial are far more frequent than is generally supposed." Undoubtedly in past times, when the present methods for the recognition of death were not at the disposal of medical men, and when the certification of deaths was not in vogue, living individuals may have been consigned to the grave.

But it is useless to assert that cases of premature burial are frequent in this country without bringing forward some proof in support of that assertion. During the past and present years, several letters have appeared in the daily papers expressing the fear that premature interment is not uncommon. The majority of the writers made no attempt at the production of any evidence in support of their fears, whilst a few have mentioned cases of recent alleged premature interment. We went to a considerable amount of trouble in investigating these cases of alleged premature burial, and, without a single exception, found them to be either myths or to be destitute of foundation.

MEDICAL NOTES WITH THE MASHONALAND FIELD FORCE.

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THE native rebellion broke out in Mashonaland on or about June 23rd. An expedition was at once despatched from Cape Town, consisting of two companies of mounted infantry (Rifle and Irish companies), and a few details of R.A., A.S.C., and M.S.C. The troops embarked on board the steamship *Arab* on June 26th, and, after putting in at Durban to embark additional horses and stores, arrived at Beira on July 3rd. Here an addition to the force was made, consisting of about 100 men, from a draft on board the steam-

ship *Garth Castle*, proceeding to Mauritius. After a month or so most of these men were recalled, and 150 troops sent from Natal to take their place.

The medical establishment, on leaving Cape Town, consisted of one medical officer and four non-commissioned officers and men of the M.S.C., but subsequent additions obtained from the *Garth Castle* and from Natal brought the numbers up to 3 medical officers, 1 warrant officer, and 19 non-commissioned officers and men. The services of three civil practitioners in the service of the Chartered Company were also secured.

On arrival at Beira, there was some delay owing to difficulties of transport. Beira is situated on a narrow spit of sand at the entrance of the Pangwe river. The horses and men and stores had to be conveyed in detachments to Fontesvilla. This was carried out by means of lighters, drawn by a tug up the river, and also by conveying them by rail on the branch of the narrow gauge railway which runs from Beira to Fontesvilla, which at this time had not been open for general traffic.

Arriving at Fontesvilla the troops, horses, and stores were conveyed by rail in small parties to Chemoio. This part of the country is infested by the tsetse fly, consequently great care was necessary to secure the horses from attack. Owing to this cause and the inadequate supply of rolling stock, the troops had to pass a considerable time in a district noted for its unhealthiness. During the rainy season, the low-lying country between Beira and Chemoio, and for some twenty miles further, is one large swamp, and during this time, and especially while the soil is drying under the influence of a tropical sun, all the diseases incident to a malarial influence abound.

Fortunately the troops arrived at the healthiest season of the year, and cases of malarial fever were almost unknown. Quinine at first was issued to the men daily, but subsequently discontinued, as it appeared to be quite unnecessary.

On arriving at Chemoio the troops proceeded to march in three parties to Umtali, the last convoy leaving on July 20th. This journey—a distance of 80 miles—was accomplished in about six days. It is to be remembered in connection with this and the subsequent marches, that a body of troops cannot march faster than the slowest waggons; that the roads are in parts very bad; numerous rivers, streams, and ravines have to be crossed, and, owing to the prevalence of that terrible curse, rinderpest, the oxen were not in good condition; in fact, before Salisbury was reached, all the oxen employed were dead, and the waggons drawn by them had to be left behind.

The whole column did not leave Umtali till July 28th. It then consisted of about 500 men, including volunteers, etc., of the Chartered Company's service. Eight ox and thirty-four mule waggons were required to carry the military stores and food supplies for men, horses, mules, and oxen.

News having been received that, except for food supplies, Salisbury was not in any immediate danger, and that any expedition hoping to open the road to that place could not do so without attacking various chiefs on the way, the strongholds of Mekoni and other chiefs were visited and their kraals destroyed. The main body did not arrive at Salisbury till the end of August. Since then columns have been sent out to inflict punishment on various chiefs round about Salisbury and Charter.

These expeditions, though varying somewhat in details, have had many points in common, namely, the peculiar form of tactics which the Mashonas adopted, and the methods required in attacking them with any prospect of success.

The Mashonas, unlike the Matabele, except when attacking a small party passing through country the natural features of which give them a great advantage, do not attack in the open. For years past the slaves of the Matabele, they have perfected themselves in the art of acting on the defensive. Although they come out of their strongholds to cultivate their crops, they do not build their kraals in the open country, but on the top of kopjes—often almost inaccessible summits of isolated hills of granite mountains consisting of heaps of huge boulders, between which there are numerous caves and spaces protected by masses of fallen rock. These natural strongholds are further strengthened by the building of stockades, walls of stone two feet thick, loopholed for

musket fire. Hidden in rocks or taking refuge in hidden caves, they are almost completely protected from artillery and rifle fire.

Consequently these strongholds have had to be taken by assault, and it is in this fact that we can see the reason for the comparatively heavy losses, especially the peculiar fatality of the injuries received by the troops when fighting with an enemy who up till now has been considered almost beneath contempt.

The arms in the possession of the Mashonas consist of guns of various kinds, rudely made battle-axes, assegais, and, in a few cases, even bows and arrows, but up till now all the injuries received by the troops have been gunshot wounds. Their guns consist of a few Lee-Metfords, stolen by the police or natives from stores or waggons; a fair number of Martini-Henry's, but the greater number are muzzle-loading percussion muskets of large calibre, bearing in most instances the mark "Tower, 1854"—in fact weapons long since discarded by the British Army. The missiles used are, of course, in the first two instances, those of Government manufacture, but bullets and slugs of all kinds are used with the muzzle-loading guns. Amongst these I have seen (1) round leaden bullets, (2) round iron (filed) bullets, (3) "pot-legs,"—pieces of iron of a cylindrical form about 1 inch long, made by breaking off the legs of the iron cooking pots used in the country, (4) slugs of hammered telegraph wire, (5) stones, (6) round balls of miscellaneous composition made of scraps of lead and solder, etc., and in one (7) case the round glass ball out of a soda water bottle, which on coming in contact with a bony surface broke up into several pieces and inflicted a severe wound. It would also appear from the nature of some of the wounds that in a few instances sporting bullets possessing an explosive force have been used. The majority of the injuries have been inflicted at close quarters, from shots fired out of caves at ranges of five to fifty yards.

In one instance the weapon discharged must have been almost touching the person injured, as the whole of the flexor surface of the forearm was torn away, exposing the whole of the bony surfaces, the muscles and tendons hanging down in shreds; amputation had to be performed at once. The following is a rough tabulation of the wounds received, which, though perhaps not quite complete, will give a general idea of the severity of the injuries.

Gunshot Wounds.

	Head and Neck.	Chest.	Lower Extremities.	Upper Extremities.	Pelvis.	Total.
Wounds immediately fatal ...	5	3	—	—	—	8
Not immediately fatal, but subsequently followed by death ...	—	—	2	—	1	3
Not fatal—amputation required ...	—	—	2	3	—	5
Severely wounded... ..	—	—	2	1	1	4
Not severely wounded... ..	1	1	4	1	—	7
Total	6	4	10	5	2	27

Of this number, 4 killed and 6 wounded were officers. This list only includes officers and men of the Imperial and Colonial forces injured since the Imperial troops commenced operations on August 3rd, and does not include about an equal number of casualties occurring amongst the Company's troops before that date, nor those occurring amongst the loyal native police and "friendlies." I have not the data from which to compile the statistics, but, as far as I have been able to ascertain, their injuries were characterised by the same degree of severity which we notice in those given in the above table.

The military operations are still (October 27th) being carried on to the north and north-west of Salisbury, but so great is the extent of the country that it is impossible to say how long it will be before peace is finally secured. The approach of the rainy season will put all military operations for a time at an end, but it may be necessary to continue the campaign

next year. It is probable by that time a force of white police will be enlisted, and either assist or take the place of Imperial troops.

NOTES ON HEALTH RESORTS.

The Battle Creek Sanatorium, at Battle Creek, Michigan, U.S.A., is a most extensive undertaking, and in connection with it there are branch sanatoria at Chicago, and in Colorado and Nebraska. Similar branches are to be opened at Guadajara in Old Mexico, at Cape Town in South Africa, and elsewhere. In the City of Battle Creek, which contains about 20,000 inhabitants, the death-rate is said often to reach only 7 per 1,000, that is about one-third that of Chicago. This fact, and the well-drained soil and pure water supply, speak in favour of the locality. The invalids are placed under careful medical supervision, and their whole daily routine is arranged for them. The amount of exercise, the kind of diet, and the amusement of each patient are specially considered. Such an institution, if properly conducted, can often be of great service in chronic cases of dyspepsia, hypochondriasis, overwork, etc., in which it is important to separate the patients temporarily from their usual surroundings. The sanatorium of Battle Creek was instituted in 1866, and owing to the philanthropy of the shareholders, the profits from the commencement to the present time have been employed on necessary improvements, the treatment of the sick poor, and the furtherance of sanitary reform. The institution is open summer and winter. There is a hospital attached to it, where also poor persons can be treated.

In *Alsace* there are some satisfactory summer health resorts. One recently established is the *Altenberg Hotel*, not far from the railway station of Münster. It is situated at an elevation of 3,300 feet, on a plateau above the beautiful Münsterthal, amidst pine trees. Excursions can be made into the adjacent Vosges Mountains. Another beautiful locality of Alsace is *Hohwald* (nearly 2,200 feet), situated amidst beautiful forests, nearly 8½ miles from the railway station of Barr. Not far from the railway station of Türkheim is *Drei Aehren*, a favourite summer resort of the Vosges, situated at an altitude of 1,900 feet, on a hill overlooking the Münsterthal and the Rhine Valley.

Amongst health resorts in the north of Germany, *Bad-Stuer* in Mecklenburg-Schwerin is a well-known locality for hydrotherapeutic treatment under medical supervision. It is situated in pleasant grounds on the Plauer See, 3 miles from the railway station of Ganzlin.

From *Thalwil* on the Lake of Zürich in Switzerland we have received a notice about a sanatorium there for nervous affections called the "Aurora" (1,510 feet above sea level). Such an institution, with its fresh country air, its quiet, pleasant situation, and beautiful view on to the mountains and Lake of Zürich, must have great advantages for many nervous cases, such as neurasthenics and hypochondriacs. Hydrotherapeutics and various special methods of treatment can be employed in suitable cases. Patients with a tendency to alcoholism or morphinism are likewise, at least the milder cases, sometimes to be benefited in such an establishment.

Many persons have considerable difficulty in deciding what localities to visit when they plan a tour in Switzerland. Much useful information concerning places of interest, together with an excellent map, is furnished in *A Trip through Switzerland*, by G. L. Catlin, published by the Official General Inquiry Office at Zürich, who supply it gratuitously. Two capitally illustrated English *Guides* to Zürich, published by the same office, have likewise been sent us.

It is announced that the Italian Government has decided to suppress the State Institute of Vaccination, which will accordingly cease to exist at the end of the present year. The preparation and supply of vaccine lymph will henceforth be left entirely to private institutes only authorised for the purpose.

The American Medical Association will hold its semi-centennial meeting in Philadelphia, June 1st to 4th, 1897. It is expected that some three thousand members of the profession will be present, and great efforts are being made to arrange a festival worthy of the occasion.