There are seven commissions in the Imperial service offered annually, one of which is in the Royal Engineers. Commissions in the Canadian Permanent Force are, of course, open to the graduates of this College. During the North-West Rebellion in 1885 there were 33 excadets employed, in the South African war there were 82, and in the present war over 450 ex-cadets are serving. Up to 1913 the graduates of the R.M.C. had adopted quite a variety of careers. About 20 per cent. had entered the Imperial Army and 11 per cent. the Canadian Permanent Force, 1 per cent. were in the Royal N.W.M.P., and the remaining 53 per cent. were engaged in law, medicine, farming, accountancy, architecture, surveying, government service, etc. "It may be of interest to know," writes the Commandant of the R.M.C., "that over 50 per cent. of the graduates of the College since it was started in 1876 are now serving in the field in France or elsewhere."

Many of the graduates have attained high positions in the army and in public life. Sir Percy Girouard, Major R. W. Leonard, Mr. F. P. Jones and General W. T. Bridges, of the Australian army, are a few of them.

After dealing with the R.M.C. it will be well to refer to the Canadian Army Hydrological Corps and Advisors on Sanitation. This corps consists of volunteers, who now occupy positions prominent in Canadian affairs, Lieut.-Col. Nasmith being the principal officer. The function of this corps is to supervise the water supply and sanitary works. It holds a quasi-official status, but hitherto its services have not been utilized as fully as might be desired, and it is to be hoped that this unfortunate condition will soon be remedied. The Hydrological Corps is very similar to the London (Eng.) Sanitary Companies, which have been well utilized by Lord Kitchener. The London companies consist of men whose ordinary vocations are associated with various branches of sanitary work, and who are themselves capable of performing duties of different kinds whenever called upon, thus relieving the Royal Engineers as much as possible. The writer some months ago offered to organize a similar corps in Canada, which would in no way interfere with the functions of the Hydrological Corps, but the authorities at Ottawa did not see their way to accept the offer. Canada has also the Corps of Railway Engineers under Col. Ramsay, the engineers under Major Janin, formerly City Engineer of Montreal, and the Pioneer Corps that are now being recruited.

The science and art of war now involves practically every branch of the engineering profession, and, as Morrison stated in his "Golden Epoch," war is now more than ever essentially an engineer's war. The military engineer has to understand and direct the technique of equipments of all kinds-guns, explosives, aeroplanes, transports, instruments, etc., in regard to quality and strength of materials and standard of workmanship. It may be contended that in general the precision required in connection with military machinery and equipment is probably greater than obtains in civil engineering. Furthermore, the testing of materials, as, for example, those made at Watertown, N.Y., furnishes a mass of data that is useful in engineering generally. The testing to destruction of concrete and brick columns affords information of value to those engaged in general constructional work. Capt. Daley, of the United States Engineers, made an apposite remark when he stated that vital, irreparable mistakes of the future can only be avoided by careful preparation now. It is, therefore, of importance to the military engineer that all sources

of information should be drawn upon in times of peace so that he may be ready for active service at any moment.

Capt. Downey, United States Engineers, stated that strategy selects, tactics occupy, and fortifications strengthen the position. Strategy is the province of higher commanders, but tactics and fortifications are work for the subordinate officers, and, as there have been great changes in methods of warfare, strategy and tactics are revised and adapted to the powerful weapons employed, the improved facilities for transport, the employment of air-scouts; yet the broad principles of attack and defense and the work required to make them as valuable as possible remain practically the same.

The condition of sea warfare has changed enormously; there was very little in common between the naval fights at Trafalgar and at Falkland excepting the valor of the men engaged in those battles.

The size of the armies now employed is vastly different to those of Napoleon's day, and the rifles of to-day fire further than did Napoleon's guns. Under these conditions it will be seen how important are the duties of the engineer.

The function of military engineers in warfare "comprehends all the preparations for the attack and defence of posts and positions, construction or improvement of military roads and communications, pontoon and bridging of all kinds, mining and destruction of bridges, and, when necessary, the repair and adaptation of buildings for the purpose of hospitals, stores, etc., the construction of temporary wharves and piers, surveying and reconnoitring, provision of field telegraphs, etc." The above was written in 1862, and, as far as it goes, it is applicable to-day, though it does not include all his duties. The engineer must be a fighter as well as a specialist. He must go ahead of the column, collecting notes with storming parties. Often he must go alone seeking information, and, when the infantry rests, he must reconnoitre, attend to the water supply and to the passage of guns. He must be in advance, opening roads, building bridges, and at the rear destroying them. He always leads the forlorn hope, making defences, constructing entanglements, blocking roads, laying mines, establishing means of communication, setting up and operating searchlights and clearing obstacles. Some of the most successful of wars were won by engineers. Abyssinia and Soudan are British examples. An American writer states that in the Mexican war of 1846-7, the most successful ever waged by the United States army, the young engineer officers played a part in it that must ever be a source of inspiration and profitable study to their successors in that branch of the service. In the present war, after seventeen failures and the loss of many lives, the British engineers succeeded in throwing a bridge across the Marne at Vareddes, threatening Von Kluck. The result of "delay in throwing a pontoon bridge caused the loss of 10,000 men of the Federal army at the passage of the Rappahannock and the battle of Fredericksburg in 1862." In the Crimean War the engineers lost 550 officers and men out of a total of 1,650 of all ranks. During the Indian Mutiny it was necessary to destroy the gate at Cashmere, and the engineers performed the task in face of a terrific hail of bullets from the enemy, costing the life of many an officer.

The engineer must be prompt of decision. "Fortunately for the engineers," wrote a contributor to the "Quarterly Review" of 1863, "it is their privilege to be