Editorial.

"THE SANITATION OF THE MARCH."

WITH QUOTATIONS FROM THE WORKS OF THE LATE COLONEL CHARLES HENDERSON MELVILLE, C.M.G., A.M.S.

The recent death of Colonel Melville is a sad reminder that even the most enlightened and skilled attention to the welfare of the British soldier is, for the individual, but a temporary effort and that all the hard work and worry must, sooner or later, be left for others to take up and go on with as they, in their turn, find it necessary.

Colonel Melville, as Professor of Hygiene at the Royal Army Medical College in 1911 and 1912, was a stalwart in the struggle to bring to the soldier the best that knowledge and experience could devise. We remember him as the keenest of the keen, the very embodiment of efficiency and the mirror of self-discipline in the cause of others. It was especially upon all that concerned the endurance of the soldier and the physiology of the marching unit that his greatest interest lay. We recall vividly the "hunger marches" which he arranged for and participated in; experimental marches full of significance for the future of the Army and for the comfort of the soldier. One of the principal facts brought to notice, as the result, was the need for ample hydrocarbons. "A party consisting of one officer and twenty N.C.O.s and men of the Loyal North Lancashire Regiment, with three medical officers and some details, was encamped on Salisbury Plain from October 11 to 23. The food was carefully restricted to the issues laid down in Allowance Regulations and a certain march, in heavy marching order, carried out every day. A careful record was kept of the actual ground covered and an estimate of the energy so expended made, on the lines detailed in the chapter on 'The March'." Melville says that "the men at the conclusion of the march showed a pinched, starved appearance and signs were not wanting to show that most of them, and more particularly the heavier members of the party, had come close to an end of their reserve stores of fat." His conclusion was that "the food principle the lack of which was most felt was fat." A definite craving for sugar was also experienced "but not nearly so strongly as in the case of fat."

Melville published his book on "Military Hygiene and Sanitation" in 1912. It was a wonderful book and it has amply repaid us to take it up again and peruse it in the light of subsequent events. Written with the supreme ease of a master of the English language and with the specialized knowledge of a first-rate hygienist, it makes indeed a splendid tribute to his memory now that he is gone. In it he has introduced a very excellent chapter on "Marching." In his course of lectures on Army Sanitation, too, given at the Royal Sanitary Institute in 1911, he devoted an important section
to "The Sanitation of the March" which deserves to be read with a fresh interest in this present time of war effort and military trial. Much of the detail is, perhaps, no longer accurate; many of the minor recommendations have been for so long a matter of course that they need not now be laid stress on. But the principles remain and their vigorous expression makes them worth quoting again and again.

"What, then, is marching?" he asks. The answer is given as follows—"Walking; carrying a certain load, disposed on the body in a certain manner, wearing certain clothes, arranged also in a certain manner, at a pace regulated not by the physical necessities of the individual but by those of the body of troops of which he forms a part." . . . The fact "that a man has to carry a load not as he would wish to but in a manner that leaves his limbs unencumbered and his hands free for fighting, that he has to walk at a certain pace so that the unit he belongs to shall arrive at its destination still a formed military body and not a straggling mob, the fact that he has to wear a certain uniform so that he may be distinguished from the enemy and recognized as a person entitled to bear arms; all these combine to make the difference that exists between the civilian who says 'Let us go for a walk' and the soldier who is ordered to march a definite distance, in a definite time and for a definite purpose." All this is as true to-day as when it was written thirty odd years ago. Again, "It must never be forgotten that every decimal point that a man's temperature goes up unnecessarily is so much superfluous energy expended and fuel used up that may be needed later on. Just as a good engineer will nurse his engine so a good Commanding Officer will nurse his men on the march."

On the subject of loss of water by perspiration he says—"On one occasion, at Aldershot, a man in good training lost as much as 5½ lb. on a seven mile march on a hot day." . . . "A man cannot afford to lose more than one-tenth or thereabouts of the water in his body without serious consequence." . . . "The ordinary soldier, weighing ten stones, contains in his tissues generally altogether about 95 lb. of water so that 9½ lb. is about his limit of possible loss. The man I have just referred to lost somewhat more than half of this in seven miles and certainly could not have gone much further without water. The obvious deduction is that if you are going to march men you must water them." "There are two varieties of thirst which I call respectively 'the thirst of habit' and 'the thirst of necessity.' The former is the thirst that assails the ordinary unregenerate man as a reflex sensation resulting from the sight of the 'Red Lion' or the 'White Horse' or some similar visual stimulus. For the civilian there is no particular danger in this thirst but the soldier must be educated out of it. If he is so educated then he will realize, and, what is more important, his officer will realize, that when he complains of thirst it is no longer the thirst of habit but the thirst of necessity, that is, a thirst that is the expression not merely of a dry throat, but of water-starved tissues, a thirst that must be slaked if the engine is to run any longer."
Then, as to the feet, Melville puts the general principle in a way that strikes one as both sound and witty. "It may not be true, absolutely, to say that clean feet are sound feet but it is absolutely true to say that dirty feet are unsound feet." And of hyperhydrosis—"The feet of the battalion as a whole may be left to the care of the Company Officer but those of the men afflicted with profuse sweating must be the care of the Medical Officer in person."

Of the boots he writes—"Every man should be prepared to turn out with one sound pair of walking boots, sufficiently worn for the feet of the owner to be accustomed to them, and in good repair. To start marching with soft feet in a new pair of boots is suicidal." On the other hand, Melville was not inclined to expend much pity on the trained soldier who reported sick with sore feet. "If a cavalry soldier rubs his horse's back he is not unlikely to hear a few home truths as to his fitness to belong to the mounted arm. If a soldier rubs his feet there is no particular reason why he should receive more sympathy."

On the other hand he is very sound on the giving of alcohol to the troops. "It should be given" he says "at the conclusion, never before or in the middle of work." We cordially agree with him in this. As he says, "the man who comes into camp cold and drinks his 'tot' of rum between the blankets, close to a fire, undoubtedly retains sufficient heat in his body as the result of the combustion of the alcohol to be of serious value. The same man, drinking his rum before standing as sentry in an exposed position, on a cold night, will probably suffer a loss of heat greater than the amount actually to be credited to the combustion of the spirit." In spite of the mention of a fire, so comfortable in the old times before aeroplanes and bombs were thought of, the right principle pervades the paragraph and makes it remarkable and just even to-day.

We commend "Military Hygiene and Sanitation" to everyone and we feel sure that we may add our deepest sympathy to Mrs. Melville on a loss which, while heavy to his old friends in the Corps, must be hard indeed to his companion for a great part of his lifetime.

THE NEW FELLOWSHIP REGULATIONS.

A DIPLOMA of Fellow of the Royal College of Surgeons has for so long, and so definitely, been recognized as the hallmark of a Surgeon that any changes in the form of the examination cannot fail to attract notice.

Since the Fellowship was established in 1843 no material change has taken place in this relationship. In the year of its centenary, and in the fourth year of this war, radical alterations in the form of the primary examination and in the terms controlling admission have been introduced by the Council of the College.