TRAINING IN SANITATION IN THE SCOTTISH COMMAND.

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Army Medical Service.

I.

The study of sanitation in the Army is a recent movement, and it has not yet reached its ultimate development, but its progress is sure if slow, and its value is becoming apparent to every thinking mind, especially in view of such national questions as loss in war and racial degeneration. The efforts made by the medical officers of the Army have been constant, and are now beginning to bear fruit, more particularly as the lessons of foreign wars have opportunely forced the subject upon public notice.

In the Scottish Command it was determined in 1906, in order to give more cohesion and solidarity to sanitary work, to introduce a "Sanitary Book" in each station as a record of points observed, and as a continuous medium of communication between the officer in medical charge and the officer commanding. The system was subsequently extended to many of the units of the Auxiliary Branches, and in these as well as in the Regular Army all officers have found that office work is minimised, while sanitary action becomes more crystallised, and the mutual relations of the commanding officer and the medical officer are strengthened. The responsibility of the commanding officer for the maintenance of health in his unit, which has of late been insisted upon, has induced each commanding officer to realise more clearly the advantage of having an expert adviser who is practically on his staff. At the same time (in 1906) action was taken in various ways to endeavour to secure the attendance in camp of a due proportion of volunteer medical officers, and to increase their interest in improving camp conditions and extending sanitary knowledge. It was suggested that reports would be acceptable, and a few officers responded.

In 1907 the War Office directed attention to the training in sanitation at Aldershot of selected men from each regular regiment, to be known as the Sanitary Section. In this command action has now been carried still further, and an attempt has been made to develop similar squads in Auxiliary Units generally. Orders were issued this year to submit definite reports on sanitation for each unit, and a promise was made unofficially that these would be analysed and criticised, and if possible a précis compiled. In addition, the Brigadier-Generals commanding Highland and Lowland groups issued sanitary regulations to be observed in each camp. On the whole, a sanitary framework has thus been constructed on which it is hoped that widely extended sanitary know-
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ledge and continued improvement will follow. Both Commanding and Medical Officers manifested interest in the subject, and in every direction an improvement in camp cleanliness has this year been reported.

The Army Council has decided that sanitation will in future form one of the subjects of examination of junior officers for promotion. The Army Council has also issued orders for winter lectures to regular troops in all garrisons. As a corollary it has been directed that in all Auxiliary Units similar lectures will be given, so that when a regiment moves into camp in 1908 the men will not be confronted for the first time with sanitary questions, but will receive a practical object-lesson upon the measures discussed during the winter. It is directed that Medical Officers will lecture on sanitation in its higher planes to officers and all others who care to attend, while the regimental officers themselves give continuous instructions to their N.C.O.'s and men, using as a guide the Manual of Sanitation. In war the State cannot provide an officer to dry-nurse each man. What is needed is to foster the instinct of avoiding the dangers that imperil life on active service. It cannot be too often repeated that an officer or man is more valuable to the State in proportion to his ability to maintain himself "fit," and secondly, that the reputation of a commanding officer may often depend on the numbers he can return as fit for duty. In analysing the 1907 reports received (a heavy piece of work), the object kept in view has been not to write a text-book or to attempt literary elegance, but rather to suggest lines of thought and modes of action. It is left to those responsible to think out proceedings that best suit local conditions, and that are most likely to bear fruit in the future. The new Territorial System may alter some internal relations, but will assist in developing the general advance in sanitation which has been initiated, and which now only needs more community of thought.

It may not be out of place to remind Medical Officers of the Auxiliary Forces that room for original communications can sometimes be found in the Journal of the Royal Army Medical Corps, and further, that the new Society of the United Medical Services is ready to receive them as members.

In the following notes no reference has been made to individual units by name, but officers will see that their remarks have been read. The aim of the Memorandum is to suggest rather than to criticise.

II.

(1) General Instruction.—It has been noted by several officers that lessons in camp cleanliness should precede training in camp. The matter has been recently dealt with in Command Orders. Medical Officers will give special lectures to both officers and men during the winter, and Company Officers will instruct their companies, using the Manual of Sanitation as a text-book. One Adjutant of Militia reports that he went
through "War with Disease" with his permanent staff, who then assisted him in disseminating instruction daily. This was excellent work. Another officer had extracts from "Health Memoranda" read daily on parade during camp. A useful book is entitled "Notes on Military Sanitation," by Lieutenant-Colonel Elkington.

(2) Visits to Camp some time Prior to Occupation.—The Senior Medical Officer or another Medical Officer detailed by him might with advantage visit the camp some time before its occupation. One or two Senior Medical Officers did this. In most camps the water supplies have been examined previously by the Sanitary Officer of the Command, but this should not prevent each officer from gaining all the knowledge he can of water protection of his camp at its source, and in its conveyance and distribution to the troops. In war this duty is one of the most important, as water is, of course, recognized as one of the principal carriers of disease.

(3) Medical Officer to Accompany Advance Party.—A Medical Officer from each brigade should accompany the advance party. Did any Senior Medical Officer or Brigade Major direct this? Yet it is very necessary. Supposing even that the water supplies are known to be sound, a camp not already laid out, and not yet in charge of a sanitary section, is very liable to be fouled to such an extent in a few hours that it cannot be thoroughly cleansed in as many days. In some reports this practical point has been noticed. Moreover, a report should be made as to the exact conditions present when the advance party marched in, and as to whether the numerous sanitary addenda have been prepared and details provided. What are these details? It is the quartermaster's duty to satisfy himself that all is right and to take action if it is not. The medical officer should note the facts as well and strengthen the action of the quartermaster. For instance, some reports indicate that a few camps had not been left sufficiently clean by the outgoing regiment. Carelessness of this kind may have serious results on active service or on manoeuvres if another regiment has to occupy the same ground, and it is surprising how easy it is for a regiment, whose lines, when not carefully scrutinised, exhibit no particular disorder, to reveal a contrast when tents have been struck, cooks have moved off, and latrines have not been thoroughly dealt with.

(4) Protective Work in Adverse Weather.—Some regiments found their camping-ground clean, but wind and weather against them. What is the remedy? The weather must be watched, and ropes and drainage looked to more particularly. Every small eminence must be utilised when the weather is bad, and the military precision of ordered lines must give way for the time to the practical utility of tents on dry land. The occupants of each tent should look to its drainage system, not forgetting the little bank of earth at the perimeter, or a stone under the central pole. Tent boards might be placed on stones, bricks, or even dug-out hillocks of earth. Stones and bricks may be used and long grass cut out to form
paths. There are numerous ideas to be thought out, and most of those noted are culled from the reports.

(5) Cleanliness under Tents and in Tents.—Only one report mentions that the tent boards were taken up. Some regiments did this once during the week; others not at all, and I have been told that in some seasons tent boards have remained unmoved by any one of successive regiments. On the other hand, an Officer Commanding Militia reports he had it done daily in his unit, with, of course, obvious limitations.

In some regiments the men's kits were exposed outside when the sun shone. In others little of this kind was done, and presumably the cleansing value of sunshine and fresh air was not explained to these men, and a fine opportunity was lost. Up to the present one of the advantages of military training has been the inculcation of discipline of mind and manners. In the future it may be hoped that our soldiers will learn something of the universal factors of health as well. The filthy habit of spitting in tents is commented upon by one Officer Commanding. Remonstrance is of no avail. In tramcars no one pays the slightest attention to "Please don't spit," in spite of the common knowledge that sputum is a potent factor of disease.

(6) Wastage from Lines and Tents.—How many regiments provided themselves with tubs or baskets or boxes to receive waste odds and ends? No report mentions these, but they did exist in some units. The canteen contractors have quantities of boxes that can be got for nothing.

(7) Dining Marquees.—The use of dining marquees is more generally discussed. Principles of domestic economy are involved. To hire dining marquees costs a certain sum, and, contra, to run a restaurant system saves a certain sum. One regiment tried both systems, one for N.C.O.'s, the other for the men, but the question is not discussed to finality. Again, when men eat in their tents waste material is thrown about; but on active service dining marquees cannot be provided. There are thus two sets of contrasting arguments. I have discussed both with commanding officers, and find there is a general consensus in favour of the dining marquee, though it is considered by some to cost more than it saves. Does it? It is certainly a tremendous advantage in wet weather, and in this way an aid to volunteering generally. I advise using marquees in these camps, and at the same time training men in tent cleanliness, so that when marquees are not available the camp does not become unbearable from smells and flies, as one sometimes experiences in India and Africa.

(8) Bivouacs.—With the subject of tents is closely associated a knowledge of the structure of bivouacs. Blankets provided with brass rings form part of the equipment of our new field ambulances, and their use should be studied. Some excellent plates and notes on tentes d'abri are given in the "Field Service Pocket Book for 1907" (Oliver and Boyd, Edinburgh), in which everyone, officer and man, should also study the articles on first aid and sanitation.
(9) **Number in a Tent.**—Some officers note that there were eight men in a tent. It is useful to observe all such details. Very curious variations are occasionally observed when N.C.O.’s are not watched. Had any officer studied the ventilation of these tents, and the fact that under certain conditions there is none, and how to meet the difficulty?

(10) **Officers’ Servants’ Carelessness.**—It is observed in one report that officers’ servants are regarded as exceedingly slack in cleanliness. This is because they trust to their masters to relieve them from the usual penalties of misconduct. It is a point to be observed. What does each officer think his own servant does with waste water? Can the procedure be improved upon? Waiters in messes in barracks and the officers’ servants often live and sleep and act in a manner that ought not to be permitted, and that is entirely due to want of supervision. This is a point for all officers to consider.

(11) **Boots and Socks and Foot Parades.**—The preparation of men for camp life and unusually severe marching has been touched upon by several. Ought not the men to have special preparatory marches during the preceding ten days? Have their boots been examined? In one unit it is noted that the men are very carefully shod by special agreement with one firm. In dubbin used? What extra boots or shoes are taken to camp? One senior medical officer notes an improvement in the darning of socks. This observation alone conveys an impression of the care in minutiae that this officer practises. It is in such things success lies. Every sportsman knows how an apparently trifling detail may destroy his day’s sport. Yet many men still pretend to regard details in sanitary matters as faddism. They condemn the thing they are unable to understand.

No time and trouble expended on these minor points are thrown away. Good shooting and good marching power are two of the most important assets of the well-trained soldier. To these we must add a third, “ability to remain fit”—“fitness.” In some battalions the care of the feet is specially considered. Have any feet inspections been carried out by the company officers themselves? I was once associated with a line battalion in which officers and men were alike smart, and this duty became on the march a routine custom. Have any instructions been issued as to blistered feet, and do the men know how to take care of them? What do you think of the Continental systems? Here we have a subject which is capable of great expansion in its business aspect as well as its practical issues. Can the commanding officer make any contracts or agreements that will tend to make the regiment better shod than others? Were canvas shoes carried as an alternative, so as to permit of rest and change? What form of sock is the best? Can the men wash them? What affections follow upon wet feet? A soldier living under perfect conditions otherwise may be made absolutely unfit for duty through even minor accidents to his feet—the feet that are relied on to carry both him and his rifle. The officer commanding one brigade speaks of the effect of the
sandy beach in cleaning the feet. The subject has evidently been considered by some, but it is deserving of greater prominence.

(12) Eyesight and Physique.—As marching, shooting, and "fitness" are the requisites, eyesight requires attention. What is the condition of eyesight in the regiment? In the German Army spectacles are universally worn if needed, as in civil life. Is it so among the less intelligent of the men in Volunteer regiments, or have you men who actually do not see and cannot see, being equally unable either to hit a target or to recognise whether friend or foe approaches his post? This is one of the important matters affecting recruiting, and it is well to draw attention to this and to other physical infirmities. That some anomalies exist was once made very clear elsewhere. A Royal Army Medical Corps officer rejected over forty incapable and infirm men who, on inspection, he found had been retained year after year by ancient custom. Such customs are bad in their effect on the regiment itself, as other men fail to grasp the meaning of "efficiency." A man with unsatisfactory vision may be fitted with spectacles (to his great advantage in civil life as well), and he may be of much service to his country, but not, as a rule, in the shooting line.

(13) Cookhouses.—The place where officers' and men's food is prepared should be immaculately clean. Only in some of the regiments that I was able to visit this summer did the conditions approach a proper standard. Among points observed, the principal was a tendency to throw refuse anywhere; food was kept on the floor of the cook's tent; refuse tubs were leaking; washing of dishes was carried on so as to saturate the ground with impurities. How are these conditions to be improved? Who is responsible? Does the orderly officer visit these cookhouses and the cooks' tents daily, inside and outside, and report what he actually sees? Does the mess president also visit them, and the regimental medical officer? It is a mistake to suppose these conditions are inevitable, but the cooks would have you think so. They are so only when the cooks are not supervised and controlled. As to leaky tubs, an agreement is made with the contractor. Have you seen the contracts? If not, get them. One commanding officer understood this and acted accordingly. Another commanding officer thinks it is desirable to distinguish more closely the difference between the straw filter-tub, a comparatively recent invention, and the refuse tub by painting them different colours. As to the straw tub, its main object is to strain off the grease that chokes drains, and every development of it will be welcomed. One commanding officer says that filter-tubs choke. Surely not, if straw be constantly renewed.

What form of cooking-range is best for camp use? Rather a big question and very important. Some use the linked camel pattern; others camp kettles on an Aldershot arrow, and others possess another pattern. Which is the best? One regiment on manoeuvres cooked in the open
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without building up sods or digging trenches of any kind. Surely this does not economise fuel. It is surprising how well the natives of India make up a fire-place with three or four stones. Some regiments had master cooks trained at Aldershot. It was interesting to discuss points with these intelligent N.C.O.'s, and some had their kitchens in excellent order, and their cooks were very clean and evidently under control.

There is a new invention for cooking on the march; cooking takes place as the cart moves. It is worth studying.

In different reports it is noted that (1) latrines, (2) washing-places, and (3) dry-refuse pits are thought to be too near the cookhouses. All such remarks should be forwarded in a special letter while the regiment is in camp. They will now receive due consideration.

(14) Food.—One senior medical officer gives a valuable detail as to the hours at which the meals took place. I am inclined to think that the intervals were too great. We know the workmen's habits. Ought not a man who breakfasts at 6.30 a.m. to have his next meal before 1.30 p.m.? Field days? Why should he not take with him some prepared food and then have the balance with his tea? It may not be possible to take the cooks for the day, or to provide road-cooking plant. If the field day be extended men may not get their dinners until late in the afternoon. Information as to food and cooking is always interesting. Money is often wasted. A regiment marches on its stomach— as well as in its boots.

"The cooks being members of the regiment." This is sound from an active service point of view. Do some regiments hire their cooks? Our armies would do better, perhaps, if more men knew how to cook, as do so many French soldiers. What are the systems in Continental armies, and how do they work?

(15) Drink.—It may not be generally known that in the British Army a hundred years ago or less every soldier was forced when abroad to drink his ration of rum—about one-third of a pint—whether he liked it or not, and twenty-five years ago every oarsman in 'Varsity races had to drink a daily ration of port as part of his training. These customs have disappeared. In some regiments the canteen is open before dinner, and the drink is consumed on an empty stomach. In others, a man takes his beer to the table with him. I am very sure that the former system is quite wrong. The sale of drink, the testing of beer, the interests of the canteen manager, the commission on the sale of beer, are all matters that indirectly concern both the individual volunteer and our national life, and are worthy of the fullest consideration. The connection between drink, crime, and degeneration is very close. The upper classes have diminished the amount they consume, but the poorer classes have not. If the Territorial Army could include a temperance (not a teetotal) movement, in addition to this sanitary movement we are now discussing, as part of its general influence, it would be an additional source of national benefit.
(16) Water.—On the golf links the inclusion of "casual water" involves no penalty, but to the soldier it is distinctly dangerous. It is one of the principal points that the company officer and the section commander have to keep perpetually in mind. It is useless to talk of testing. The environment or the natural history of a pool or a stream should be enough for a sensible man.

The camps are so well supplied that illness derived from water is, as a rule, very unlikely, but great mischief may happen during marches. How is this to be provided against? There are two main principles to act on: (1) Give the man safe water to carry, and forbid him to drink any other except by permission; (2) when all supplies fail, the officer commanding the section must be the judge of what is safe.

The latest idea is a filter water-cart, a filter that is part of a cart, and that will purify casual supplies. Next year this will be on view and utilised in most camps. But what are "corporal and three" to do?

In Continental armies and in our own an effort is being made to find a tablet to purify water. If every medical officer would study this subject during the winter and next camping season we might attain the result we seek.

One report gives an account of a march to camp. A market ground, a farm, and a field were used in turn as camping grounds. Field latrines are not mentioned in this report. Similar marches were made by Yeomanry regiments. None contain any reference to instructions issued as to roadside water supplies.

In one regiment the officer commanding put his police on the stand-pipes. In another I saw that the officer commanding evidently did not.

(17) Latrines.—Here, again, such ample preparation is made that little is left to be done. One commanding officer reports that he himself visited the latrines. This is the right spirit in which to approach this matter. It is an essential daily duty that should be laid upon the orderly officer. If matters are found unsatisfactory the officer who takes action finds things better next time. Is disciplinary power to be a dead letter in sanitary matters?

Reference is made in some reports to broken seats and latrines left unclean by outgoing regiments; want of scoops; scarcity of paper; need of notices as to use of earth. It would be well to deal with such matters by immediate report when in camp.

Marching regiments say nothing of the new form of parallel trenches. They were used during the Perthshire manoeuvres and the men approved of them. One brigade made the quartermaster of the day responsible for cleanliness. This does not obviate the desirability of an orderly officer's visit. In another, a man from the sanitary squad was on duty every two hours to see that earth was thrown in. Constant inspection, constant instruction to the men themselves, and a liberal supply of all addenda will produce good results when N.C.O.'s and respectable men
set the example. The medical officer should note in this and other matters exactly what he observes to be wrong, and send the sanitary book at once to the commanding officer. This is practical work.

(18) Urinals. — What would ordinary men do at night? What happens if a man who has recently recovered from enteric soils the ground round his tent? This is the point to explain to the men themselves. Where the soil is sandy, holes dug in convenient places are sometimes sufficient. But in camps occupied for a long time, such as Stobs, Barry, and Irvine, other measures should be adopted. How are tubs to be obtained? How many per company? Where would you place them?

It is presumed the great success of the use of oil is understood.

(19) Disposal of Horse Refuse. — The commanding officer of a Yeomanry regiment found himself in increasing difficulties as to removal. The farmers are glad to get the refuse, but all contracts should insist on daily removal. In a heavy battery it was destroyed daily, but report does not say how, although we may suppose by fire. Was a destructor built?

(20) Destinators. — Is it understood how to build a destructor, and which is the best form — the American or the circular? Every unit should build one, both for use and for practice. The principle is not widely different from that of the Aldershot kitchen, but any experimenter may devise a new form.

(21) Washing and Bathing. — As already noted, one commanding officer put police on the stand-pipes. The drinking supplies should be regarded always as sacro-sanct. It would be an excellent thing for our troops if we could infuse them with the religious attitude of mind of Indian natives regarding food and water.

One report deals with the advantages of sea-bathing. Were any men trained in the method of restoration of the partially drowned? Another officer reports that he had water for hot baths ready from 2 to 6 p.m. Officers and men often long for a hot bath. Perhaps he will favour us with details as to cost, arrangements, &c. All practical hints come in useful on campaigns.

A report says pits near ablation benches were choked, but why is not clear. Would straw filters have assisted to prevent this? Fresh pits were dug in one unit.

(22) Clothing. — Except reference to boots and khaki cap covers, no remarks have been made upon men’s clothing or its management. The subject is of great importance, and a War Office Committee is at present discussing it particularly. But every officer has his own opinion, and practical ideas are valuable.

The difficulty during the Perthshire manoeuvres was to keep the men fairly dry, as the weather was very bad and they had practically no change. One day when it was raining heavily I waited to see a certain regiment come into camp, a regiment in which the arrangements are
always sensible. Each man had marched and worked from 4 a.m to 4 p.m. in his khaki serge only. The commanding officer was justified in marching without an overcoat, as its weight would have been so very fatiguing. But the men were wet through, and it is a question whether it is not desirable that the Army equipment should include a very light waterproof cape, with a collar, and reaching from the neck to the hips. A sportsman usually has one, and a soldier is essentially a sportsman. Personally, I would not undertake any expedition by land or sea, on duty or for pleasure, without a waterproof of some kind in my kit, even if I myself had to carry it.

As to management, on arrival in camp, after being fed, each man received from a waggon his overcoat and, rolled therein, a change of underclothing. These things he put on while his suit was dried in neighbouring buildings.

All reports might usefully include details as to what was done in emergencies of any kind.

(23) Drying Tents.—On service there are no drying-rooms, and in these manoeuvres instructions were issued to devise some plan for drying clothes. In one unit a brick pyramid was built in a marquee, but there seemed to be too much fire and flame. In another a pit was dug and wood burnt therein, but it soon burnt out. Neither plan seemed very successful, and perhaps a better idea is to build a long trench and to fill it half with wood and half with stones, so that the glowing stones therein can retain and give out heat for a longer time with less fuel. Strings or ropes were stretched across the tents on which to hang the clothing. Some success was attained, but the matter requires a good deal of thought and experience. As to the drying-houses in the permanent camps, further reports on these will be useful next year.

(24) Tent Boards, Bedding, &c.—One brigade reports that no tent boards were issued, and none were needed, as the soil was dry and sandy. Do the medical officers always know what each man has in the way of bedding? Tent boards, straw sacking, four blankets, and an overcoat seem a great deal under ordinary conditions, and one can hardly suppose so much is needed. It would be well for both commanding officers and medical officers to think the matter out and offer some reliable data and suggestions. When this amount is compared with a soldier's allowance on service, or during the manoeuvres—viz., his overcoat, two blankets, and a waterproof sheet—it is evident that there is room for some doubt as to the necessity of the larger issues.

(25) The Ideal Soldier.—What every officer aims at is to collect a company of intelligent men who can march, shoot, and take care of themselves. These are three requisites. Perhaps the best example we can find is the backwoodsman of our Colonies. What we have to do is to try to turn raw levies, who have nothing in their favour but a certain standard of intelligence and physique, into ideal soldiers. It is a hard
task, but everything that tends to make him think, and to realise that he 
may at times be left to himself altogether, tends also to impel him towards 
the desired goal. And therefore it is that we endeavour to instil such 
practical lessons as the care of his feet, socks and boots, and precautions 
and cleanliness in food and drink. This paper has touched upon at least 
a score of matters he should know something about, and probably it 
would not be difficult to find as many more.

(26) Soil.—A very important subject: notes on its nature in each 
camp and observations on drainage, ground water, &c., are very useful, 
as also the remarks made as to agricultural tiles for one camp.

When drainage is difficult it is evident that no grease whatever should 
be allowed to get into the drains, any more than into house drains, and 
the idea should be carefully explained to the men themselves. Straw 
filters should be in constant use, not only in cookhouses, but even in 
ablution stands where it is possible to adapt them, and where it is clear 
they are needed. These straw filters are most excellent; they may be 
seen in their latest form in Barry Camp.

(27) Marching.—The more we deal with our men as a coachman deals 
with his four-in-hand the better work we get. On a long day’s journey 
he takes them easy and rests when possible, but never lets them get cold 
and stiff. There is no unnecessary drinking of water. When the time 
comes for a feed the horses get it.

There should be no such thing as drinking water at the outset. All 
who have marched much in India know that this water-drinking is a 
habit and not a necessity. This is a point that the company officers 
and N.C.O.’s should regard as absolutely disciplinary.

A day’s manoeuvres sometimes end at some distance from camp, and 
a march straight back without a rest is very trying. No remarks on 
marching have been made in the reports; the methods and views of 
experienced commanding officers and medical officers would have been 
interesting.

(28) Field Ambulances.—It is not perhaps grasped that “field 
ambulances” have now superseded the old divisional and brigade 
hospitals. Every medical officer will have to study the organisation and 
structure of the field ambulance, and every commanding officer in the 
new Territorial Army must know their exact relationship to his unit. 
It is evident from the reports received that in some brigades an analogous 
system is carried out, and that sick are transferred to the present 
bearer companies in quite the right way. In these the change will present 
no difficulties.

In some regiments a clearer understanding is desirable. Some march 
without a tent for sick, and a Red Cross flag to mark it, and others have 
no trained regimental stretcher-bearers. Ideas as to the provision of 
medical material are apparently very sketchy, although there is no reason 
this should be so, as the regulations deal with the matter, and state when
and where medical panniers are issued, &c. In some units no plain record of sick is made, but in others it is clear that my circular on camp hospital work, issued to all field hospitals in 1906, has been studied and acted upon. I think it would be well for all auxiliary medical officers who have not already done so to begin at once to assimilate the details of hospital management, and if any points are not understood a memorandum direct from the senior medical officer to the Principal Medical Officer Scottish Command will be fully replied to. It is pointed out that courses for Volunteer medical officers are held at our larger military hospitals.

(29) Staff Rides, Manoeuvres.—It is somewhat surprising to find, both in war and on manoeuvres, that clear orders respecting field hospitals are so frequently omitted. This is a point that calls for attention alike from brigade commanders and senior medical officers. The field ambulances, for instance, should occupy a certain position on the line of march in an enemy’s country, and this position should be notified in division and brigade orders, just as are instructions regarding other units. They occupy a variable length in column and area in camp, according to the size of the whole force, and this must be allowed for in orders which refer to time factors, crossing bridges, encampments, &c. These variations should be charted from field tables, and the differences and functions between field ambulance, clearing hospitals, &c., fully investigated. There are many details that all officers, especially those likely to be employed on staff duties, should be familiar with.

(30) Sanitary Squads.—In regular regiments one point the War Office desires to elucidate is whether this squad should consist of pioneers or not. One commanding officer answers that in barracks it should not, as the pioneers have their own work, but in camp it may, as the pioneers’ barrack work disappears. Pioneers are usually respectable, sensible men, and seem well fitted for the duty. It is very clear that on no consideration should men of doubtful character or low intelligence be included, as it requires men of some character and influence to carry out duties very analogous to and quite as important as those of military police. It is as police they should be regarded, and it is desirable that they carry a special badge. The sanitary squad has certain work to do, but it has also to direct and control those who fail to carry out orders.

One N.C.O. and eight or ten men are ample for a regiment. On a field day the section should not stay in camp, but should march out, and upon receiving orders from the brigade commander set to work to plan a regimental camp, choosing and preparing (under orders of the medical officer and quartermaster) the sites for kitchens, latrines, ablution places, &c.; posting one man as a sentry on water supplies; building refuse destructors, &c.; and shortly before marching off everything should be again put in order. This drill is described by one medical officer and is very practical. Cooks, if they have come, may also set to work, and the regiment may dine out and rest comfortably.
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(31) Lectures—First Aid Work; Drill on Field Days.—Lectures on sanitary matters should certainly include some first aid instruction on a few important points, e.g. (1) how—at times—to let an injured man alone; (2) how to keep him from bleeding to death; (3) how to prevent a broken bone from breaking through the skin; (4) how to resuscitate the partially drowned, &c.

Beyond this, each medical officer has his own ideas as to what should be included in the lectures, and, judging from the points mentioned in the reports, those lectures will be essentially practical and useful not only in camp, but at home as well, a point more than one senior medical officer has rightly insisted upon, and which is of infinite importance. The teaching should be such that all may apply it to home life as well as to camp work; and, to go further, if it were possible generally to disseminate the idea that volunteering means not only fine patriotic spirit, but also has associated with it useful and practical teaching in the best methods of retaining health and the manly physique upon which each man prides himself, it would perhaps be an additional incentive to men to enrol themselves.

A first aid and ambulance drill should be carried out on field days as if in action. Some commanding officers fully co-operate in this, but others do not. The matter should be dealt with by brigade commanders. The practice should be carried out on the lines of the incidents of war, wounded being ordered to drop out as previously arranged, collecting parties taking them to dressing stations where an operation tent is pitched, a fire lighted, &c.

(32) Medical Officers in Camp and their Reports.—It is perhaps as well that the necessity of medical officers attending camp in the proportion of at least one per battalion has been so thoroughly discussed during the last two trainings, as with increased sanitary work it is absolutely essential, and as under the new Territorial schemes it will unquestionably be ordered. It is reported that in one case two medical officers had 3,000 men (four regiments) to look after. This was wrong. In another the senior medical officer rightly transferred an officer from one regiment to another temporarily. In a third unit there were four medical officers, but no instruction in sanitation was given. It is evident that brigade commanders and senior medical officers have some administrative work to do in these matters. The duties of medical officers will be practically the same as hitherto, and hence the effort made in this Memorandum to direct attention to the salient points of camp life ought not to be unproductive.

The form the reports have taken in some cases is very unofficial, and not as directed in King’s Regulations. If the reports had been submitted immediately upon the closing of the camp, some would not perhaps be so bald and perfunctory. The simple assurance that everything is as perfect as possible and that there is no more to say would raise in some minds
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a reasonable doubt to the contrary. Other reports were very full indeed, and one officer has taken much trouble in preparing a useful map of his camp. Nevertheless very few reports are at all comprehensive, and the aim of this Memorandum has been to suggest matters all of which are more or less intimately connected either with the personal welfare of the man, the general advantage of the regiment, or its relation to other units. The Memorandum is, as it was intended to be, mainly suggestive.

III.

The object of the action taken in regard to sanitary work for the last two years is in a measure now attained. It was the custom in the past to regard the week’s training of Volunteer regiments as a military outing, during which, of course, the camp was to be kept commonly clean. But such ideas as the scientific consideration of each factor in the maintenance of health, or the general instruction of N.C.O.’s and men in the rules of health as applicable to their lives in and out of camp, had not attained to any practical development. The influence of the junior officers is not sufficiently utilised.

It is clear, however, that a great deal of interesting and instructive work may be carried out with a little organisation, and the structure of the new Territorial Army will assist in further advances on the same lines. A yearly report may be made by each medical officer, passed through his senior medical officer, and finally consolidated in a general report. With a little practice the Territorial Army in Scotland should become an authority in itself as to what the high standard relating to all the conditions of the soldier in camp life ought to be.

The reports already submitted indicate the ability which can be brought to bear, and the discussions I have had with officers commanding brigades and battalions, with senior medical officers and other medical officers, show that all that is needed is to bring the study of the laws of health and efficiency into greater prominence.

I would suggest, then, that each unit, while aiming at a general advance in theory and practice, should also choose one particular point for special study, e.g., care of the feet, water on the march, field cooking, &c., and should carry the study not only up to, but, if possible, beyond the standard laid down in the British and Continental armies, and in this, as in other matters, knit more closely a community of interest and sympathy between the foreign service army with the home defence force.

A very great national benefit is closely bound up with the extension of sanitary principles that may be imparted under a military system. Men that join the ranks rarely know anything of the rules of health. Many officers are almost equally unconversant with scientific facts on a higher level. The general ignorance of the nation is the chief cause of the constant loss of life due to consumption, typhoid fever and infectious
diseases; and there is the well-known fact that we all despise what we are unfamiliar with.

So far as the Army is concerned, what is chiefly needed is that all officers should clearly understand how closely associated are our losses in war with our national ignorance, and, secondly, what a very wide field of interesting and curious knowledge lies just above and beyond the ordinary level of what is usually spoken of as a clean barrack or a clean camp. To take one prominent instance, we may order a man of low-grade intelligence not to spit in his room, but it requires some understanding, although not really very much, to grasp the connection between the germ in his sputum and the death of another man some years later from consumption. There is practically in the same series, but further along the line, the tremendous question of the increase of insanity in the British Isles. These are points closely connected with our military strength as a nation. The wasted money, spent in all directions on inferior specimens of mankind, definitely affects our potential energy.

In this argument it is assumed that the nation is actually losing ground through ignorance of the rules of life. Is this the case? Does the reader desire to deny it? If he does, then one more thinking man is likely to be included in the field of action, for I am well content to leave him to his ultimate conclusion. Once he has begun to enquire it will not be long before his influence is thrown into the desired scale.

As officers we have two ways of attaining our ends. One is by the issue of orders, and by their enforcement; the other is by the spread of knowledge. By habit alone our men will attain to clean barracks, clean camps, and a certain mechanical care on active service. This is the most we can attain to "by order," and it is not comparable with the result we shall obtain in the Army and in our national life when the reasons for these rules and regulations have been thoroughly understood. But to effect this all officers must combine in maintaining a steady, continuous movement year after year. A national effort is requisite to attain a national end, and as matters now stand the officers of the British Army constitute the vanguard in the movement.

The factors considered essential to secure the nation from physical degeneration are therefore a competent knowledge of these laws of health, combined with daily practice in the maxims thereof, so that in home life or on active service officers and men instinctively do the right thing, and the women and children, in whatever grade of society they may be, do the same. It may be argued that it is the duty of the Education Board to produce these results. But the Education Board has so far very signally failed in its duty in this respect to the nation, and it has remained for the Army to add to its ancient protective services the new one of sanitary education, so that when a soldier returns to civil life he is a better citizen in this respect at least. Many of us regret that the present temper of the
country prevents some system being developed that would permit us to assimilate the best educational points of the old Greek physical methods and those of the modern German, with perhaps a little Spartan custom and severity thrown in to modify hysterical humanitarianism. This humanitarianism, the reaction from the brutality of earlier ages, regards the care of anything below the level of a healthy standard as more important than the conservation of the best. Many would rather subscribe to a home for lost cats than give a guinea to a fund for workmen with ten healthy children. The conservation of energy is not among our scientific principles, and hence it is that in every direction spring up these homes for the preservation of our waste products, the products we ought not to have among us, whereas the development of the sanitary education that would eventually render such homes unnecessary is too evidently of minor importance.

We are now promised an improved policy, but this should not prevent us from realising the immense good that may be effected by imparting that education which is above all the most important, education in “The Care of Life,” under the aegis of our military discipline.

Translation.

THE NATIONAL PHYSIQUE AND ITS INFLUENCE ON NATIONAL GREATNESS.
(From the Kaikosha Kiji.)
TRANSLATED BY CAPTAIN E. F. CALTHROP.
Royal Field Artillery.

The War Office statistical records, while embodying much that is contained in this article, are not inclusive in some ways, and too voluminous in others to give a general and at the same time correct impression. For instance, the War Office report assumes that all recruits in Classes A and B are perfectly sound, which is a grave error. The following statements are founded on the examination in 1907 of 11,577 recruits on the register of the Sakura regimental district, drawn from a population of 677,188, and I consider that they form a basis on which the condition of the whole country may be judged.

Varieties of Diseases.—By far the most prevalent disease is trachoma (of the eye), with which 4,073, or 35.2 per cent., were affected; the next most prevalent is decayed teeth, 3,155, or 27.2 per cent.; the next, physical debility, 1,832, or 15.8 per cent. These three form the principal causes of unfitness, the remainder constituting 30.5 per cent. Taking the population of this district as a basis, we find that the number of males in