PART II.

THE FEET COVERINGS.

For successful marching, the make, shape, and material of the boots that are worn are of the highest importance, for no matter how anxious a man may be to become a good marcher, he cannot succeed if his boots are not of the right sort. This has long been recognized by the authorities, as shown by their desire to improve on the present regulation infantry boot.

Despite, however, much that has been spoken or written on the defects of the "ammunition boot"—as it is usually called in the service—it is, in my opinion, if properly fitted and cared for during its period of wear, the boot most suited for marching and withstanding the rough wear and tear that a service boot is subjected to. It is strong, easily fitted, and adapted for packing away in kit-bags, important considerations in a military boot.

This opinion may not coincide with that of the recruit when making his first acquaintance with a pair of new "ammunition" boots as issued to him by the quartermaster of his unit, for, like most other articles issued from the military stores, they take some time to get used to. Most old soldiers will retain lively recollections of trying to dry themselves on a new army towel, or of trying to sleep between a new pair of barrack-room sheets. The coarseness of these articles when new makes them anything but comfortable to use, though when they have been in use for some time they become softer and more easy to use.

To attempt a long march in a pair of new infantry boots would be disastrous to the wearer. They should be worn for a time about the barrack square or camp, and blacking should never be applied to them till they have been worn for a fortnight or so. Dubbin, or any grease which has no salt in it, should be rubbed into them daily till they have shaped themselves to the feet. If the boots must be polished, then start to use the blacking. The use of the grease will not prevent them from polishing, for after it has been discontinued for a few days the boots will take the blacking, and the polish will be of a deeper lustre than if no grease had been used. Afterwards,
an occasional application of grease will keep the boots soft and add to their period of wear.

It would be well, however, if blacking was never used at all on the boots, except for a pair in use for walking out. One pair should be kept for parades, manoeuvres, &c., which should never have had blacking applied to them, but kept greased, and worn always about camp or barracks, and so kept ready and fit for any long march the men may be called on to perform. Boots that have been lying by for some time become hard, and creases form in them, or the inner soles crumple up, causing discomfort to the wearer when taken into use again.

Whilst on the subject of blacking for boots, I have reasons to believe that corns are either caused by its use or the pain of a corn is accentuated by something used in the manufacture of boot blacking. I have always been troubled by a corn on the centre of each of my small toes, for which I have used a corn solvent. This has always enabled me to pull the corn out by the roots, but it has always grown again. Just before leaving for South Africa I discontinued the use of blacking, and during the three years I was campaigning in that country the corns never troubled me again. Since, however, I have come back and re-started the use of blacking the old favourites have reappeared, as painful as ever. I noticed during the war that very few men suffered from corns, and in most cases they were as painless as corns or hard skin on the hands.

When fitting boots a good rule to go by is to feel that the toes can be moved slightly inside the boot, that the eyelet holes nearly meet across the instep, and that the heel is held firmly. If a boot is loose about the heel it will produce friction when marching and cause blisters or chafe the skin.

The feet expand from much marching and exercise, so that whilst a size seven boot may fit the recruit on joining, it will be found that a larger size will be required later on. Many men refuse to recognize this fact, and go on forcing the size seven boots on their developing feet, causing themselves much pain and discomfort and destroying their marching efficiency.

The heels should never be worn higher than the regulation pattern as issued from stores—about 1½ in. High heels, by throwing the weight of the body forward unduly, not only cause sore toes when marching, but are also fatiguing to the body in general, by causing an unnatural gait. Instructions should, therefore, be given the shoemaker when having boots re-soled and heeled, not to make the heels higher than they originally were. Most shoe-
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makers—regimental ones particularly—have a partiality for raising the heels of boots from a quarter to half an inch above the original height when resoling and heeling.

In lacing the boots the laces should not be brought up further than the centre hole; and enough lace should be left to encircle the boot, the knot being made in the centre. This will be found to give more freedom to the instep, besides preventing the knot being forced on the flesh by the legging, and thus causing a hard and painful lump to form. Where leggings have not been superseded by putties—a much more comfortable, smarter, and useful leg covering—it will be found that the hard ends of the leggings, pressing against the heels or instep, are often painful and cause chafing of the skin. This is caused by the legging being laced too tightly at the bottoms, and it is a good plan if the feet are sore from this cause to leave the bottom holes of the leggings unlaced.

When in camp or on manœuvres, if a spare pair of boots are carried they should never be left outside the tent exposed to the sun, especially when they have been soaked with water, as the leather shrinks, cracks, or hardens, making them very uncomfortable to wear. I am not in favour of a spare pair of boots being carried for manœuvres, as one good serviceable pair of boots should be sufficient to last any manœuvres that may be likely to take place at home. On service one pair of boots may often have to last, with continual daily marching, for months, so that it is well to accustom the soldier to the care of his one pair of boots, so as to last out, should occasion arise, for a long period of marching.

When dubbin is not obtainable for use, a piece of fat from the camp-kettle at dinner-time, rubbed into the boots whilst warm, and after the dust has been brushed off, will keep them soft. The fat should be rubbed well into the uppers and the welt between the uppers and soles, to prevent them splitting at the sides—a common occurrence when boots are subjected to heavy work without having been well greased.

The boots should not be removed from the feet directly on arriving in camp or bivouac and whilst the feet are warm. This is bad both for the feet and the boots; as the latter, if moist with perspiration and allowed to stand till next morning, become stiff and hard, while the feet themselves get soft. It is far better—unless the feet are blistered and sore so that they require attention—to keep on the boots till retiring for the night. By this means the boots will be kept in better condition, and be found more easy to wear again for the next day's march.

Many men's feet are ruined by the habit of removing their
boots after the completion of the day's march and wearing slippers about the camp, the boots being left about perhaps in a hot sun, so that when taken into wear again next morning, instead of a soft and pliable boot being ready for the day's work, which would be the case had the boots been greased and kept on the feet till bedtime, a boot with the uppers full of hard creases, the inner sole warped up and split, with the toes pointed up, has to be forced on to a foot made tender by the easy comfort of a soft slipper worn, perhaps, on a sun-scorched ground.

It may, of course, be necessary to remove the boots for the purpose of washing the feet, or trimming the toe-nails, but this should be done after the feet have cooled down, and the boots replaced again on the feet to be worn till retiring for the night. Sore heels are often caused by an accumulation of dirt underneath where the heel rests, especially in men who perspire much. The congealed mass of dust, worsted from the socks, and perspiration not only makes the heels sore underneath but causes blisters at the back. To prevent this, the accumulated matter should be occasionally removed with a knife and the inside of the boots washed with a rag dipped in warm water.

When sleeping in tents, the boots should not be left in the centre of the tent, as they may be crushed out of their natural shape by being sat or trodden on. The safest method is to place them at the back of the head, near the tent flies, with the uppers downwards so as to prevent any water dripping into them should it rain. Besides preventing them from being crushed, they will be more easily found should there be a night alarm and a sudden order to turn out. When sleeping in bivouac, the boots are best kept underneath the blankets or other covering, as otherwise, should there be a heavy dew during the night, they may be found sopping wet in the morning.

Like the boots, the regulation pattern of socks—thick seamless worsted—are about the best that can be worn. Thin socks allow the seams of the boots to be felt more acutely, and therefore the feet are more likely to become blistered or chafed. If through excessive perspiration of the feet, thick worsted socks cannot be worn, thin woollen ones may be tried, though it is well to accustom oneself to the use of the regulation ones, as on service no others may be obtainable.

The only fault I have found with the regulation socks is their tendency to shrink. Oft times I have found that the heels dwindle away till their position is shifted to the centre of the foot, and the top of the uppers comes level with that of the boots. This does not
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Happen with every pair, so that it must be from some defect in their manufacture. To guard against this it is advisable always to obtain a large pair and soak them in water before using them.

On no account should cotton socks, especially coloured ones, be worn. Cotton does not absorb the perspiration like wool or worsted, but instead becomes stiff and hard. Socks that have been darned should not be worn for long marches, however desirable, from an economic point of view, they may be at other times. It is far better to start a march with new socks or ones that have only been worn a short period, as the part that has been darned is likely to blister or chafe the feet. When holes appear in the socks and it is possible to obtain new ones, it is better to do this than patch up the old ones.

At night in tents the socks should not be placed under the head—a common practice—as they get crumpled up into hard creases, caused by the perspiration, which will cause discomfort on the morrow's march. They should be placed with the boots behind the head, or better still, if a cross-bar has been affixed to the tentpole, hang them through the loop of the haversack or belts.

PART III.

CARE OF THE FEET AND SKIN ABRASIONS.

Having dealt with the coverings of the feet, the next thing to consider is the care of the feet themselves. It is deplorable to see, as is frequently the case, men of good physique and in every other respect good and well set up soldiers, incapacitated from duty after a few days' hard marching owing to bad feet, while men poorly endowed by Nature as to physique and strength are still able to keep their place in the ranks.

The possession of a good pair of feet is such an important item in the marching efficiency of a soldier, that I am glad to see the suggestion that certain men in each regiment should be trained as chiropodists has been acted on by the authorities. At the same time, however, I am of opinion that if men took a little more care of their feet and boots there would be little necessity for calling in the services of the chiropodist. I will, therefore, endeavour to show how the feet may be kept in good condition.

Before proceeding on a march the soldier (and these remarks may also apply to the Volunteer when about to start on his annual camp) should get his feet in trim. He should bathe them in warm water, to which, if he suffers from corns, a little soda should be
added. This will soften the corns so that they may be pared more easily. This is best done with a small corn razor, but care should be taken not to cut too deep. The toe-nails should also be cut, especially those of the great toe.

Cleanliness of the feet is imperative in those who wish to become good marchers. Cold water should always be used, except for the purpose, stated before, of softening corns. Cold water by keeping the skin hard renders it less likely to blister than if warm water is used. For those who suffer from excessive perspiration of the feet frequent bathing in cold water; with a fresh change of socks after each bath, will often effect a cure. The best time to bathe the feet is an hour or two after arriving at the end of the day's march, when the feet have cooled down, though it is not necessary to bathe them daily. If the feet are hot and sore, adding a little permanganate of potash to the water and allowing the feet to dry naturally without the use of a towel will effectively ease them. If a basin or bucket cannot be had for bathing the feet in, fill your canteen with water, add the permanganate, and pour the mixture over the feet.

The method employed in South Africa, where water and utensils were scarce, was to fill an empty biscuit-tin with potash and water, which was left outside the hospital tent for anyone who wished to bathe his feet. I can hardly recommend this method, as I do not think there could be much curative power left in the water after a hundred or so men had dipped their perspiring feet into it. I am rather inclined to think it would have the opposite effect.

Permanganate of potash goes such a long way—an ounce would be sufficient for fifty different occasions—that I would advise each man to carry a quantity in a small box in his haversack for use when he required it.

A little vaseline rubbed, when retiring for the night, on the soles of the feet or under the toes, if they are sore and scalded in that region, I have always found effective in easing them, and putting the feet right for the morning.

Scalded soles are generally caused by perspiration accumulating on the socks, to prevent which a soldier should always carry a spare pair of socks in his haversack, if he is marching without any other clothes than he stands up in, as will often be the case on service. An extra shirt or pair of drawers is a superfluity which can be dispensed with when occasion arises; but an extra pair of socks is an indispensable necessity. As soon as the socks begin to get soppy with perspiration, they should be changed and washed at the first
opportunity. The period that socks may be worn varies; some men may wear them without any discomfort for a fortnight of continuous marching, whilst others who perspire more require to change them every second or third day.

I am not a believer in the old method of rubbing soap on the socks. I invariably found that soap made my feet soft, so I always evaded the order to soap my socks, which, some years back, was generally issued as a prelude to a long march. I never knew the method to be a preventative against blisters, chafes, or scalding, but usually found that it aided all three. I never saw anyone using soap to his socks on active service, and am glad to see that its use is no longer recommended or enforced. If, whilst on the march, proper care is taken of the boots and the feet, and a few simple rules followed, there will be little occasion for soap, foot powders, or any other substance inside the sock.

Wearing slippers about camp after a long march, especially on hot and hard ground, injures the soles of the feet and puts them out of condition for the morrow's march. If the feet require easing, it is better to sit or lie inside the tent with the boots off, or if slippers must be worn, wear them in the evening only, when the ground is cool.

Slippers with gutta-percha soles should on no account be worn; as it is a well-known fact that gutta-percha if worn on a hot or dry surface draws and retains the heat and injures the soles of the feet. This advice is hardly necessary to the regular soldier nowadays, as he is supplied with leather-soled slippers. In Volunteer camps, however, it was usual to see men wearing slippers with gutta-percha soles. I should, therefore, advise Volunteers not to take slippers of this class to a camp if they value the comfort and health of their feet. Slippers are a luxury easily dispensed with in camp; or on service. They were the first articles I always rid myself of in South Africa when I wished to lighten my kit, nor did I ever feel the loss of them. I noticed also that the men that marched well and were seldom troubled with sore feet never carried slippers. If the boots are well looked after they may be kept as comfortable for wear as any slippers.

It will often happen on service that men will be compelled to sleep in their boots, perhaps, for weeks at a stretch, at times when the close proximity of the enemy makes a night attack probable. It is at times like these that the soldier, if he has neglected to take proper care of his feet and boots, will be subject to much discomfort. If he has been in a stationary position during the day, the discom-
fort of sleeping in boots will not be very great, but if, as may be
often the case, he is on the march, it will be felt much more.

If sleeping in boots is the order on the march, it is always well,
if water can be had, to bathe the feet when opportunity occurs after
arrival in camp, or bivouac, and if the socks require changing to
do so. If water is scarce, a little poured from the water-bottle or
canteen over the feet will suffice. It is extraordinary how a little
water, when it is scarce, can be made to go a long way. I have
often had a complete bath all over, with a canteen full of the then
precious liquid.

The bootlaces should be loosened slightly before lying down to
rest, and the putties need not be worn so tightly as when actually
on the march.

When campaigning in cold climates or where the exigencies of
service entail a lot of marching through or standing about in slush
or snow, the boots should be greased both inside and out, and if
vaseline can be obtained, or any pure fat, it should be rubbed on
and between the toes. This will act as a preventative against
chilblains, an ailment which is likely to cause much suffering, and
is the cause of a large number of men being rendered temporarily
unfit for service when exposed to the rigours of a campaign in a
snow-covered country. Besides preventing to a certain extent
chilblains, if the feet and boots are kept greased the toes are less
likely to be attacked by frost-bite, another and more severe com­
plaint, which is to be guarded against when campaigning under
these conditions.

If the boots let in water, and there is no way of having them
repaired or changed whilst on the march, it will be found that the
mud, as it dries on the socks, makes them hard and causes sore
feet; the socks should be brushed with a stiff brush or rubbed
together before putting them on in the morning, so as to get the
dirt out. It is also advantageous to brush the inside of the socks
at other times, especially when it may not be convenient to wash
them; by keeping them free from dust they are not so likely to
irritate the feet.

Sometimes great inconvenience is caused by a nail making its
appearance through the sole of the boot whilst on the march. The
simplest method to remove this is during a halt to take off the
boot and place a copper coin over the nail, and a small stone on top
of this to fill in the space between the coin and the uppers; then
strike at the stone through the leather with a piece of wood, or
another stone. If the offending nail is near the heel it can be got
at much more easily.
A simple, but effective, method of treating blisters is to draw a piece of worsted through the blister with a needle, and squeeze all the water from under the skin, leaving it perfectly dry. It is an old-fashioned cure, but I have seldom seen it fail. Care, however, should be taken not to use a dirty or rusty needle.

A great deal of discomfort to the soldier on the march is sometimes caused by scalding or chafing of the skin in the neighbourhood of the anus or between the thighs. This is often caused by the jagged edges of the inner seams of the trousers rubbing against the skin. Where khaki or drab clothing is worn the discomfort is not so much felt, the material being softer than that of the dark blue or green cloth trousers worn on home service.

It is usual, or was when cloth clothing was worn for manoeuvres, to wear the oldest clothing for marching, as good clothing would be rendered unfit for ordinary wear by the dirty roads and rough work of camp life. Old or worn trousers, however, are likely to cause the wearer considerable suffering which could easily be avoided by a little attention bestowed on them before proceeding on the march.

The inner seams should be pressed, and any jagged edges should be cut. If the seams are hardened by congealed perspiration, they should be brushed and washed with warm water and soap before being ironed. If drawers are worn, scalding of the skin is not so likely to occur; but some men cannot, or will not, wear drawers.

The trousers should be braced well up but not too tightly. The general tendency is to wear them loosely braced on the march, which is wrong, as the friction against the skin is thereby increased.

Despite all precautions, however, chafing or scalding of the skin is likely to occur, especially in men who are very fleshy about the thighs, or who walk close-legged. In this respect, I have noticed that very few men whose legs have a tendency to be bow-shaped suffer from scalding of the skin.

When the skin is scalded, a little vaseline rubbed into the affected parts before going to bed will relieve the smarting, and restore the skin to its normal state by the morning. I have always found vaseline more effective in this respect than powders or Fuller's earth.

A treatment for abrasions of the flesh which I have seen old soldiers use is to apply wet pipeclay of a moderate thickness on the affected spot and allow it to dry and cake on. I have seen many a severe abrasion relieved by this treatment, though on hygienic grounds it does not seem advisable, as the pipeclay may not be perfectly clean, and in that case likely to set up more serious trouble.

(To be continued.)