

U. S. SANITARY COMMISSION.

RULES FOR PRESERVING THE HEALTH OF THE SOLDIER.

FOURTH EDITION.

The members of the Sanitary Commission ordered by the President of the United States, and acting under the direction of the Secretary of War, in coöperation with the Army Medical Bureau, to secure by all possible means the health and efficiency of our troops now in the field, and to prevent unnecessary disease and suffering, do most earnestly and affectionately request their brethren of the volunteers and militia to adopt and carry out the following "RULES FOR PRESERVING THE HEALTH OF THE SOLDIER." They are derived from the highest authority and the largest experience of military and medical men, and it is believed that, if followed with the intelligence and honesty of purpose which characterize the American soldier, they will save the

lives of thousands of brave men who would be otherwise lost to the service of their country.

They are addressed alike to officers and privates, inasmuch as the latter are liable to promotion, and upon their officers devolves the responsibility of securing their health, safety, and comfort. They will be found in no instance to conflict with the "Army Regulations," by which all ranks are governed, and with which every good soldier should be familiar.

1. It is absolutely necessary, for the sake of humanity and the efficiency of the army, that every man laboring under any physical infirmity which is liable to unfit him for bearing without injury the fatigues and hardships of a soldier's life in the field, should be promptly discharged from the service by his commanding officer on a surgeon's certificate of disability. (Army Regulations, par. 159, 167, and 1134, 1135, 1138.)

It is the duty of every good soldier who is conscious of any such disease or defect, which may have been overlooked on inspection, to report himself to the surgeon for advice.

In case of discharge, means are provided for his prompt payment and conveyance to his home.

2. Every officer and soldier should be carefully vaccinated with fresh vaccine matter, unless already marked by small-pox; and in all cases where there is any doubt as to the success of the operation it should be repeated at once.

“Good vaccine matter will be kept on hand by timely requisition on the Surgeon General.” (General Regulations, par. 1105, 1134.)

Medical officers are earnestly advised to make themselves familiar with the “*Revised Regulations for the Medical Department of the Army*,” a copy of which should be obtained by application to the Surgeon General. They will thus learn the proper modes of securing supplies of medicines, instruments, and hospital stores, and rules for official conduct under all circumstances.

4. The articles of food composing the rations issued by the United States Commissary Department have been proved, by sound experience, to be those best calculated for the food of the soldier.

The amount allowed for each man is greater in quantity than the similar allowance for any European soldier. If he understands his duties and

manages well, any commissary of subsistence can save from 15 to 30 per cent. out of the rations furnished by Government, and with the money thus saved, fresh vegetables, butter, milk, &c., may be procured.

5. When the surgeon considers it "necessary for the health of the troops, the commanding officer, on his recommendation, may order issues of fresh vegetables, pickled onions, saur kraut, or molasses, with an extra quantity of rice and vinegar." (Army Regulations, par. 1079.)

Desiccated vegetables and dried apples may be obtained on similar authority.

6. When the rations furnished for the troops are damaged, or in any way unfit for use, the Army Regulations require the commanding officer to appoint a "Board of Survey," composed of competent officers, by which they may be condemned; in which case, good provisions are issued in their stead. (Par. 926.)

7. Soldiers should always eat at regular hours, as far as the exigencies of service permit. Neglect of regular hours for meals tends to disorder the digestion, and to invite diarrhœa.

8. Each company should have its regularly detailed cook and assistant, who should always, on a march, be allowed to ride in one of the wagons, when practicable, inasmuch as their services are more necessary for the health of the men than in the ranks, and they are often required to cook at night the rations for the next day, whilst the men are sleeping. The men should always willingly procure wood and water for the cooks, whether detailed for such service or otherwise.

9. "Bread and soup are the great items of a soldier's diet in every situation: to make them well is therefore an essential part of his instruction. Those great scourges of a camp life, the scurvy and diarrhœa, more frequently result from a want of skill in cooking than from the badness of the ration, or from any other cause whatever. Officers in command, and more immediately, regimental officers, will therefore give a strict attention to this vital branch of interior economy." (Winfield Scott.)

10. The best mode of cooking fresh meat is to make a stew of it, with the addition of such vege-

tables as can be obtained. It may also be boiled; but roasting, broiling, or frying, in camp, are wasteful and unhealthy modes of cooking.

11. "In camp or barracks the company officers must visit the kitchen daily, and inspect the kettles. * * * The commanding officer of the post or regiment will make frequent inspections of the kitchens and messes. * * * The greatest care will be observed in washing and scouring the cooking utensils: those made of brass or copper should be lined with tin. * * * The bread must be thoroughly baked, and not eaten until it is cold. The soup must be boiled at least five hours, and the vegetables always cooked sufficiently to be perfectly soft and digestible." (Regulations, par. 111, 112, 113.) Medical officers should frequently examine the articles of food issued to the men, inspect and taste it when cooked, and scrutinize the goodness of the cooking, and the condition, as to safety and cleanliness, of cooking utensils.

12. Spirits should only be issued to the men after unusual exertion, fatigue, or exposure, and on the discretion of the surgeon.

Those men who drink spirits habitually, or who commit excess in its use, are the first to fail when strength and endurance are required, and they are less likely to recover from wounds and injuries.

13. Water should be always drunk in moderation, especially when the body is heated. The excessive thirst which follows violent exertion, or loss of blood, is unnatural, and is not quenched by large and repeated draughts; on the contrary, these are liable to do harm by causing bowel complaints. Experience teaches the old soldier that the less he drinks when on a march the better, and that he suffers less in the end by controlling the desire to drink, however urgent.

14. There is no more frequent source of disease, in camp life, than inattention to the calls of nature. Habitual neglect of nature's wants will certainly lead to disease and suffering. A trench should always be dug, and provided with a pole, supported by uprights, at a properly-selected spot at a moderate distance from camp, as soon as the locality of the latter has been determined upon; one should be provided for the officers and another for the men.

The strictest discipline in regard to the performance of these duties is absolutely essential to health, as well as to decency. Men should never be allowed to void their excrement elsewhere than in the regularly-established sinks. In a well-regulated camp the sinks are visited daily by a police party, and a layer of earth thrown in, and lime and other disinfecting agents employed to prevent them from becoming offensive and unhealthy. It is the duty of the surgeon to call the attention of the commanding officer to any neglect of this important item of camp police, and also to see that the shambles, where the cattle are slaughtered, are not allowed to become offensive, and that all offal is promptly buried at a sufficient distance from camp, and covered by at least four feet of earth. (Regulations, par. 505, 513.)

15. Except when impossible for military reasons, the *site of a camp* should be selected for the *dryness of its soil, its proximity to fresh water of good quality, and shelter from high winds*. It should be on a slight declivity, in order to facilitate drainage, and not in the vicinity of swamps or stagnant water.

A trench, at least eight inches deep, should be dug around each tent, to secure dryness, and these should lead into other and deeper main drains or gutters, by which the water will be conducted away from the tents.

16. Sleeping upon the damp ground causes dysentery and fevers. A tarpaulin or India rubber cloth is a good protection; straw or hay is desirable, when fresh and frequently renewed; fresh hemlock, pine, or cedar boughs make a healthy bed. When occupied for any time, a flooring of planks should be secured for the tents, if possible, but this must be taken up, and the earth exposed to the sun, at least every week.

17. The tents for the men should be placed as far from each other as the "Regulations" and the dimensions of the camp permit, (never less than two paces;) crowding is always injurious to health, (Regulations, p. 508.) No refuse, slops, or excrement should be allowed to be deposited in the trenches for drainage around the tents. Each tent should be thoroughly swept out daily, and the materials used for bedding aired and sunned, if possi-

ble; the canvas should be raised freely at its base, and it should be kept open as much as possible during the day-time, in dry weather, in order to secure ventilation, for tents are liable to become very unhealthy if not constantly and thoroughly aired.

Free ventilation should also be secured at night, by opening and raising the base of the tent to as great an extent as the weather will permit.

18. The crowding of men in tents for sleeping is highly injurious to health, and will always be prevented by a commanding officer who is anxious for the welfare of his men. Experience has proved that sleeping beneath simple sheds of canvas, or even in the open air, is less dangerous to health than overcrowding in tents.

No more than five men should ever be allowed to sleep in a common army tent of the kind most commonly in use.

19. The men should sleep in their shirts and drawers, removing the shoes, stockings, and outer clothing, except when absolutely impracticable. Sleeping in the clothes is never so refreshing, and is absolutely unhealthy.

20. The men should never be allowed to sleep in wet clothing, or under a wet blanket, if it can be possibly avoided; and, after being wetted, all articles of clothing and blankets should be thoroughly dried and sunned before being used. After a thorough wetting there is no serious danger as long as the body is kept in motion; but the wet clothes should be replaced by dry shirt and drawers before sleeping; otherwise there is danger of taking cold, and of other grave forms of disease. If the men are deficient in the necessary supply of clothing for a change, the surgeon should report the fact to the commanding officer.

21. Camp fires should be allowed whenever admissible; they are useful for purifying the air, for preventing annoyance from insects, for drying clothing, and for security against chilliness during the night.

22. The underclothing should be washed and thoroughly dried once a week.

The men should bathe, or wash the whole body with water, at least once a week, and oftener when practicable, but the feet should be bathed daily, and the stockings washed whenever soiled.

23. The hair and beard should be closely cropped. If vermin make their appearance, apply promptly to the surgeon for means to destroy them. Extra soap may be procured on recommendation of the surgeon.

It is the immediate duty of non-commissioned officers in command of squads to see that these, and all other precautions required for the health of the men, are strictly carried out under the orders of the company and medical officers.

24. When bowel complaints are prevalent, be especially observant of the rules for preserving health, and apply to the surgeon for a flannel bandage to be worn constantly around the belly.

25. It is wise and prudent, when ague and fevers are prevalent, that every man should take a dose of quinine bitters at least once in twenty-four hours. This will surely serve as a safeguard against an attack of disease; it has been practiced in Florida and elsewhere with undoubted benefit.

26. The men should not be overdrilled. It is likely to beget disgust for drill, and to defeat its object. Three drills a day, of one hour each, for squads, and a proportionate length of time, when

sufficiently advanced, for battalion drill, is more profitable than double the time similarly occupied. Drilling before breakfast is always injurious, especially in malarious districts.

27. When practicable, amusements, sports, and gymnastic exercises should be favored amongst the men, such as running, leaping, wrestling, fencing, bayonet exercise, cricket, base-ball, foot-ball, quoits, &c., &c.

28. *On a march* take especial care of the feet. Bathe them every night before sleeping, not in the morning. Select a shoe of stout, soft leather, with a broad sole, and low heel.

Prefer woolen socks. If the feet begin to chafe, rub the socks with common soap where they come in contact with the sore places.

29. An old soldier drinks and eats as little as possible whilst marching. The recruit, on the contrary, is continually munching the contents of his haversack, and using his canteen; it is a bad habit, and causes more suffering in the end.

30. The commencement of the day's march should be prompt. Nothing tires the men so much as hanging around a camp, waiting for the word to start.

31. It is a great comfort to the men to halt for ten or fifteen minutes at the end of the first half hour; many, about this time, require to attend to the calls of nature. After this there should be a halt of ten or fifteen minutes at the end of every hour, with a rest of twenty minutes in the middle of the day for lunch. A longer halt than this stiffens the men and renders subsequent marching difficult. The best rule is to get through the day's march, and rest in camp, if possible, by two o'clock, p. m.

32. The best pace to adopt, in marching, is from 90 to 100 steps (of 28 inches each) to the minute; this will give a rate of from $2\frac{1}{2}$ to $2\frac{3}{4}$ miles to the hour.

In continuous marches, the leading companies should be alternated each day, as it is always less fatiguing to be in advance.

33. At the close of a day's march every man should bathe his feet, and wash his stockings, and get his meal before lying down to rest, removing and changing the under clothing, if wet.

34. Whenever, on a march, facilities of transportation are available, it is wise to allow the men to

put their knapsacks into the wagons. This is an immense saving of strength, especially to troops unaccustomed to marching.

When there is liability to attack, and when the troops are going into battle, this measure is particularly recommended, as the men, under these circumstances, are liable to lose their knapsacks, overcoats, and blankets.

35. *In action*, the proper position in which to place a wounded or fainting man is flat upon his back, with the head *very slightly* raised.

36. The most urgent want of a wounded man is water; if a canteen or cup is not at hand, bring it in a hat or any available vessel.

37. As a rule, cuts, even when extensive, are less dangerous to life than they seem; the contrary is true of bayonet and bullet wounds.

38. Whenever blood is flowing freely from a wound by spirts or jets, there is immediate danger, and, if the wound is situated in one of the limbs, a stout handkerchief or band should be promptly tied loosely around it, *between the wound and the heart*;

a drumstick, bayonet, ramrod, or jack-knife is to be then inserted between the skin and the bandage and twisted around until the strangulation of the limb stops the flow of blood, and it should be held thus until the surgeon arrives.

In a less urgent case, or where the wound is differently situated, pressure applied directly to its surface, and kept up steadily, will often save life.

39. Wounded men should always be handled with extreme care, especially if bones are broken. The medical assistants are always provided with spirits and anodynes.

40. It is by no means necessary that bullets should always be extracted; they often remain in the body, and do little or no harm—much less, in fact, than might be done in attempts to remove them.

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FRED. LAW OLMSTED,

General Secretary