TRAINING
OF
WAR DOGS
1962

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Prepared under the direction of The Chief of the Imperial General Staff.

THE WAR OFFICE,
March, 1962.
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TRAINING OF WAR DOGS

CHAPTER I
HISTORY OF THE USE OF WAR DOGS

SECTION 1.—HISTORY

1. Since the earliest days of history, dogs have been the friends and servants of man. They have proved themselves to be faithful companions, staunch in adversity and capable of great endurance. Their devotion to man is without parallel in the animal world.

Man quickly took advantage of these outstanding characteristics to train them for military purposes, and, as early in the world's history as 4000 BC, Cambyses used them during his campaign in Egypt. Later Attila the Hun and the Romans made use of their alertness and aggressiveness to train them as guards for their camps. During the Middle ages, dogs selected for their size and ferocity, were armed with spiked collars and protected by suits of armour. When loosed against enemy cavalry they caused considerable havoc. It is reported that in 1544 Henry VIII sent four hundred dogs "garnished with good yron collers" to help Charles V of Spain in his war against France.

2. With the introduction of gunpowder the dog as an attacking force became outmoded and more attention was paid to its scenting powers. Christopher Columbus on his voyage of discovery to America took bloodhounds with him and these he used to scent out ambushes. Tracker dogs were used by Essex in Ireland and against the Scottish clansmen.

3. A most successful use of dogs in war was introduced by the Rifis during the Spanish-Morocco War. Dogs were trained to run along in front of the lines and, when camouflaged, they looked from the distance not unlike crawling men. The Spaniards, seeing what they thought to be suitable targets, would open fire and thus reveal their positions.

As the pattern of war changed, so has their training become more specialized, and the roles they have fulfilled become more varied.

4. Before the First World War, Germany, realizing their possibilities, had started training on a comparatively large scale and when war broke out had a considerable force of highly trained dogs ready to take the field. Several other countries had, to a lesser degree, formed training establishments for the production of trained dogs. Unfortunately, in this respect, Britain lagged lamentably behind and it was not until some time after the war began that a War Dog School was established. Of the 100,000 dogs used during the war it is estimated that 30,000 were employed by the German armed forces.
Their uses were many and various. Messenger dogs were trained to carry despatches in a special cylinder attached to the collar and were the means of reducing the casualties amongst runners and frequently maintaining contact when other means of communication had failed. Ambulance or casualty detecting dogs were able, by their highly developed sense of smell to locate wounded who might otherwise have been missed by stretcher parties. As guard dogs they proved invaluable in giving added security to military installations.

5. Between the war years Germany again began training on a large scale. Each Corps District was allotted a training school, and after the beginning of the second World War, further schools were established in occupied countries. Highly trained tracker dogs caused considerable embarrassment to allied agents, dropped by parachute in enemy or occupied territory, and it was with the intent to devise a means of baffling them, that tracker dogs were later trained by us. Russia too was alive to the possibilities of war dogs, and it is estimated that 50,000 dogs were trained before and during the early part of the War. Russia is the only country known to have used dogs to destroy tanks. These “tank busters,” as they may well be named, were trained to carry a quantity of high explosive on their backs, which was detonated by an antenna when the dog ran beneath a tank.

6. After her entry into the war, America embarked on an ambitious dog training programme, and during the first two years, 20,000 dogs were supplied to the armed forces. With the possibility of her forces being engaged in an Arctic war, special emphasis was placed on the production of sledge and pack dogs. In the jungle fighting of the Pacific theatre of operations, the patrol or scout dog was particularly useful in forewarning patrols of the presence of enemy positions.

7. Once again Britain lagged behind and it was not until 1942 that a training school was formed. In the first instance only guard, messenger and patrol dogs were trained but, as the war progressed other types were introduced. One of these was the mine dog which was trained to detect and indicate the presence of buried mines. These dogs were especially valuable in detecting non-metallic mines which the mechanical detector was unable to do. Altogether four mine platoons were trained and used with success in NW Europe after the invasion. It was in 1946 that dogs so trained were sent to Palestine to help in the location of buried caches of arms. It had been previously established that a dog was capable of detecting buried arms down to a depth of 4 to 5 feet, which was far beyond the limit of the mechanical detector.

With the advancement in methods of transport, dogs had to be trained to travel in aircraft and when necessary to drop by parachute.
8. When planning the post war army, at the conclusion of hostilities, it was decided that despite all the technical advances made during the war, war dogs still had a place in the modern army. This decision has been clearly justified by their successful employment in operations such as Kenya, Malaya and Cyprus. It became apparent too that in peace, guard dogs, with their characteristics of aggressiveness and alertness, could render invaluable assistance in the protection of military installations. This they have done with marked success, and, of equal importance, with a significant saving in manpower. It is of interest also that countries such as Pakistan and Burma which attained post war independence have, following instruction in British methods, established war dog training schools as part of their military forces.

CHAPTER II
BREEDS SUITABLE AS WAR DOGS

SECTION 2.—GENERAL

9. Experience has shown that the following breeds and their crosses possess the qualities best suited for the specialized training that a potential war dog has to undergo. It must, however, be borne in mind that because a breed does in general possess the essential characteristics, it does not follow that every member of that particular breed will themselves exhibit the desired qualities. It is essential therefore that each dog is carefully examined for its physical fitness, conformation and temperament before its admission to a training establishment.

SECTION 3.—DESCRIPTION OF BREEDS

10. Airedale—Is the largest of the British terriers. It is a strong, active dog, squarely built, standing 23 to 24 inches and weighing from 40 to 45 pounds. The coat is harsh and wiry and lies close to the body. It has a black body with tan head and legs.

Characteristics:—intelligent, courageous, aggressive and faithful. Airedales have been used widely as guard dogs and messengers.

11. Alaskan Malamute—The Alaskan malamute is a sturdy, strong, compact dog of medium size. From 20 to 25 inches in height it weighs between 50 and 85 pounds. It has a dense, thick, coarse coat, not too long and usually wolf grey or black and white in colour. The feet are especially distinctive; they are of the snow-shoe type, large, long and
flattish, with thick pads, and with abundant hair cushion between the toes.

Characteristics:—strength and endurance.

Their capability of moving swiftly over snow, coupled with their great strength make them outstanding as sledge dogs.

12. Alsatian (German shepherd).—A wolf-like, well proportioned dog, possessing a strong muscular body with great suppleness of movement. Standing between 22 and 26 inches, it weighs from 60 to 90 pounds. The coat, which may vary from white to black is composed of two layers; a short woolly undercoat covered by a hard straight outer coat.

Characteristics:—highly intelligent, well developed senses of smell and hearing, alert, willing and reliable.

This dog has all the attributes required for military purposes and has been trained successfully for guard, patrol, messenger, tracking and casualty finding duties.

13. Boxer—The boxer is a medium sized, short haired, muscular dog. The head with its distinct stop and undershot jaw is characteristic. It stands 22 to 23 inches at the shoulder and weighs 50 to 55 pounds. The coat is short, flat and shiny and the colour may be ranging shades of fawn or brindle.

Characteristics:—aggressive, active and adaptable.

Because of its short coat and aggressive temperament members of this breed have been particularly successful as guard dogs in hot climates.

14. Bull mastiff—The bull mastiff is a powerfully built dog, symmetrical in appearance and possessor of a well knit frame. The coat is short and dense and gives good protection against the weather. The colour may be varying shades of fawn or brindle. It is 25 to 27 inches high and weighs 90 to 100 pounds.

Characteristics:—courage combined with docility and great strength.

15. Collie—The collie may be smooth or long coated, the latter being the more common. Both varieties have a short woolly undercoat. It has a long, lean head and a shapely body which combine to give it a graceful appearance. The colours are usually black and tan with or without a blaze or sable with white markings. The height varies from 22 to 24 inches and the weight from 50 to 60 pounds.

Characteristics:—nimbleness, speed, endurance and intelligence.

Members of the breed were used extensively as messenger dogs in both World Wars.
16. **Dobermann Pinscher** — The dobermann pinscher is a medium sized dog with a compactly built, muscular body. The coat is short and rather harsh and lies close to the body. It is usually black with fawn or red markings. It stands approximately 25 inches and weighs about 45 pounds.

*Characteristics:* — energetic, alert and aggressive.

The dobermann pinscher is very popular as a police dog and has been trained for both guard and tracking duties. Being thin coated it is more suited to temperate or hot climates.

17. **Eskimo** — The eskimo is a strong, compact, dog, standing approximately 25 inches high and weighing 60 to 80 pounds. The eyes are dark and set obliquely giving an untrustworthy expression. The legs have plenty of bone and are well muscled; the feet are almost round. The coat is very dense, hard and coarse and it has a thick undercoat. Its colour may be black, white, grey, tan or combinations of these colours.

*Characteristics:* — Strength, endurance, good nose and a memory for routes. These dogs are capable of hauling loads long distances over rough ice encrusted snow without becoming foot sore. An eskimo team will draw from one and a half to double its body weight, and average 20 to 30 miles a day on long journeys.

18. **Great Dane** — In spite of its great size the great dane is elegantly and muscularly built. In one so big it has an unexpected gracefulness and briskness of movement. Its height should not be less than 30 inches and weight 120 pounds. The hair is short and dense and sleek looking. Colours are brindle, fawn, blue, black and harlequin.

*Characteristics:* — powerful, intelligent and staunch.

19. **Groenendael** — The groenendael is a medium sized dog with a level firm back, a deep chest and of good muscular development; the legs are straight with relatively small, compact feet. The coat is rather long over the body generally though much shorter on the head. The popular colour is all black though many dogs shew a little white about the face. The height is about 23 inches and the weight averages about 55 pounds.

*Characteristics:* — adaptability, mobility and intelligence.

20. **Irish terrier** — The Irish terrier is an active, lively dog, possessing lots of substance, but at the same time free from clumsiness. The body is moderately long with a strong, straight back; the legs are straight and well-boned and the feet small and compact. The coat is hard and wiry and is usually “whole-coloured,” either bright red, red-wheaten or
yellow-red. The height is about 18 inches and the weight about 26 pounds.

*Characteristics:*—courage, endurance and an ever present desire to fight other dogs.

This breed proved particularly successful as messenger dogs during the 1914-1918 war.

21. **Labrador**—(a) **Black.**—Is a strongly built, short-coupled, active dog. The head is rather flat on top. It has a characteristic tail which is thick and otter-like at the base and gradually tapers to the tip. The black coat is short, dense and free from wave. It stands about 22 inches and the average weight is 65 pounds.

(b) **Yellow or Golden.**—In appearance it is very much like the black variety but the head is slightly convex across the top of the skull; between the ears and the neck is stockier. The coat unlike that of the black labrador has no marked gloss or sheen. The colour may vary from fox red to cream. The height and weight are similar to the black.

*Characteristics:*—good nose and endurance.

Both varieties have been trained with marked success as trackers although of the two the black has probably proved the more successful. They also make excellent casualty detecting dogs, and their crosses with smaller breeds have made reliable mine detectors.

22. **Malinois**—The malinois is one of the three breeds of Belgian sheep-dogs. The body is moderately long with a firm straight back which shews a slight slope downwards towards the croup; the chest is deep and capacious; the legs are of good bone with round compact feet. The coat is short and wiry in texture. The colours are mainly ash grey, tawny with a dark mask and fawn-brindle. The height is about 23 inches and the weight about 55 pounds.

*Characteristics:*—vigour, intelligence and versatility.

23. **Rottweiler**—The rottweiler is a heavily built, muscular, medium sized dog. The head is broad and it has a well defined stop. The coat is short, smooth and close-lying; it is black in colour with well defined tan or mahogany-brown markings. The height is 24 to 26 inches and the weight 70 to 100 pounds.

*Characteristics:*—intelligent, naturally obedient and courageous. This dog has all the qualities necessary for training as a guard dog.
24. Schnauzer (Giant).—The giant schnauzer is a robust, sinewy dog with a somewhat rectangular appearance. The head is long and lean with bushy eye brows projecting well over the eyes. The coat is straight, hard, dense and wiry and may be black, black and tan or pepper and salt coloured. It stands 22 to 25 inches and weighs 60 to 80 pounds.

Characteristics:—Reliable, aggressive, intelligent and hardy. For a considerable number of years this dog has been used on the Continent as a police and military dog.

25. St Bernard—The St Bernard is a heavy, powerfully built dog, with a massive broad head. The coat is rough without being curly, dense and close-lying. The height varies from 26 to 30 inches and the weight 160 to 220 pounds.

Characteristics:—strength, endurance and intelligence.

The St Bernard is the famous Hospice dog used by monks of the Hospice of Great St Bernard in the Swiss Alps and, trained by them to rescue travellers lost in the snow.

CHAPTER III
REGISTRATION AND IDENTIFICATION

SECTION 4—GENERAL

26. All dogs acquired for military purposes must be correctly registered so that they may be readily identified and a complete record of their movements maintained.

27. The means of identification are its number, name, breed, sex, age and description. All this information is entered on an Animal History Sheet—Army Form B 270, a separate sheet being kept for each dog. It is also recorded in Army Book 95—Register of War Dogs, maintained by all units responsible for the administration of war dogs. In those RAVC units responsible for the purchase, training and continued supervision of a large number of dogs the introduction of a master register, the pages of which contain a sufficient number of columns to record the various postings and final disposal of each dog bought, has proved of value.

SECTION 5—NUMBERING

28. Each dog is given a number which is tattooed on the inside of the left ear. It is also stamped on a metal disc or ordinary identity disc and attached to the collar.
29. The system practised is that in which the number allotted to each dog consists of three digits, the last two being separated from the first by a letter, eg, 9 A 14. The first digit is the last figure of the year in which the dog was purchased; the letter indicates the theatre of origin while the last two digits represent the individual dog’s purchase number. To exemplify, the number 9 A 14 would signify that the dog was the fourteenth to be purchased in 1959 in the theatre allotted the letter A. The theatre letter is issued by War Office (V&R). As a series is completed application is made through normal V&R channels for a new letter.

30. When a very large number of dogs is involved it may be necessary to discard the foregoing method and, instead, introduce the Preston system of numbering. Using this system it is possible to number 4,000 animals with each letter selected. If the letter “A” is to be used the first number in the series will be “A000”, the second “A001”, the third “A002” and so on up to “A999” which completes the first thousand. The second thousand will be numbered “0A00”, “0A01”, “0A02”, up to “9A99”. The third thousand will commence “00A0” and finish “99A9” and the fourth thousand will commence “000A” and finish “999A”.

31. Tattooing.—The dog is securely muzzled with a strong box muzzle and firmly held by its handler. The most suitable method of restraint is for the handler to straddle the dog, which has been put in the sitting position, and to grasp the collar and a fold of skin on either side of the neck (Fig 1). The operator then thoroughly clips the hair on the inside of the left ear and, after cleaning with methylated spirits, infiltrates the area with a local anaesthetic, a liberal coating of tattooing ink is applied and the operator, standing in front of the dog, opens the jaws of the tattooing instrument and slips the ear flap between them. By pressing firmly on the handles, the jaws of the instrument are brought together and the needles forced into the substance of the ear. They are kept in this position for about 3 seconds and then the ear is released. To ensure that sufficient ink penetrates the punctures a further application is rubbed in with cotton wool.

32. As mistakes can easily occur, great care must be exercised in the correct insertion of the number into the instrument. Confirmation of this should always be obtained by testing on a piece of paper before proceeding to tattoo the ear.
Fig 1.—Tattooing
SECTION 6.—NAMING

33. The name should be short, not more than two syllables, easy to remember and, when possible, describe some outstanding characteristic of the dog, such as 'Fury' for a particularly aggressive animal. As far as possible names should not be duplicated, and for this reason, it may be necessary to rename a new intake. The civilian dog population is full of 'Rexes', and 'Caesars' or similar popular names which if retained in military kennels would cause a considerable amount of confusion.

SECTION 7.—DESCRIPTION

34. For description purposes the dog is divided into various regions and, having first noted the general colour, each region is described separately. The regions are the head and neck, body, legs and tail.

35. The general colour of the animal usually consists of one or two primary colours, the dominant colour being recorded first e.g., black and tan, sable and fawn. With rare exceptions the following colours are those most frequently seen—black, brindle, fawn, sable, tan and yellow (golden).

36. When describing the individual regions variations of colour and any unusual markings are noted e.g., tail—fawn, light fawn underneath.

Besides the colour, any distinguishing features such as crop, prick or lop ears, curled or docked tail and scars which are considered to be permanent are recorded.

CHAPTER IV
AGEING

SECTION 8.—GENERAL

37. The determination of the dog’s age from the wear of the teeth is not absolutely reliable. For this reason, when an assessment of its age has to be made, it may be necessary to consider other factors such as, the general appearance of the animal and the greying of the muzzle.

38. In each jaw there are six incisor teeth—two centrals, two middles, and two laterals. Each tooth is divided into three parts. The free part, which is seen when looking into the mouth is called the crown; then there
Fig 2.—Determination of a dog's age by the teeth
is the neck or constricted part, which is encircled by the gum, and divides the crown from the root which is inserted in a cavity in the jaw bone.

The structure of the crown is different in each jaw; in the upper jaw it is composed of one main lobe and two lateral lobes and is often referred to as the "fleur de lys", while in the lower jaw it has one main and one lateral lobe. It is by noting the number and type of teeth erupted and the wear of the main lobes that an estimation of the age is made. Unfortunately the wear, depending on such factors as the set of the jaws, the inherent hardness of the teeth and the habits of individual dogs (the lobes of a dog which habitually gnaws stones and bones will wear much more rapidly than those of a dog that doesn't) may exhibit considerable individual variations.

**SECTION 9.—CHANGES IN TEETH DUE TO AGE**

39. The following table shows the changes which occur in the teeth of the average dog.

<table>
<thead>
<tr>
<th>Age</th>
<th>Changes in Teeth</th>
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<tbody>
<tr>
<td>At birth</td>
<td>No teeth.</td>
</tr>
<tr>
<td>1 to 2 months</td>
<td>Milk teeth erupt.</td>
</tr>
<tr>
<td>3½ to 5 months</td>
<td>The milk incisor teeth are shed and the permanent incisors appear.</td>
</tr>
<tr>
<td>5 to 6 months</td>
<td>Milk canines (fangs) are shed and the permanent canines erupt.</td>
</tr>
<tr>
<td>7 to 12 months</td>
<td>All the temporary teeth have been replaced by permanent and the mouth has a full set of teeth. The canines are still growing; their colour, at first bluish-white in the region of the neck, gradually changes to white or yellow-white.</td>
</tr>
<tr>
<td>1½ years</td>
<td>The main lobes of the lower centrals are worn away.</td>
</tr>
<tr>
<td>2½ years</td>
<td>The main lobes of the lower middles are worn away.</td>
</tr>
<tr>
<td>3½ years</td>
<td>The main lobes of the upper centrals are worn away.</td>
</tr>
<tr>
<td>4½ years</td>
<td>The main lobes of the upper middles are worn away.</td>
</tr>
<tr>
<td>5½ years</td>
<td>In only the upper corners are the main lobes present.</td>
</tr>
<tr>
<td>6½ years</td>
<td>The main lobes of all the incisors are worn away.</td>
</tr>
<tr>
<td>10 years</td>
<td>Individual incisors fall out and the tables (wearing surfaces) of the remainder are oval with their axes at right angles to the gums.</td>
</tr>
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SECTION 10.—GENERAL SIGNS OF AGE

40. Other changes that help in assessing the age are:

(a) Although not constant, at 4 to 5 years in the majority of dogs grey hairs appear on the muzzle.

(b) Between 6 and 7 years there is very often cataract formation which causes bluing of the pupils.

(c) About 10 years hollows appear above the eyes and there is dishing of the face below the eyes due to the bones of the cheeks sinking as a result of teeth falling out.

41. In spite of all the foregoing aids, accurate ageing of a dog above 6 years old is extremely difficult and it may not be possible to give a closer estimate than 1 to 3 years of its true age.

CHAPTER V
KENNEL MANAGEMENT

SECTION 11.—GENERAL

42. Kennel management embraces grooming, foods and feeding, exercise and kennelling. A high standard of management is essential if the health and well being of the dog is to be maintained at such a level as to enable it to perform efficiently its allotted task. Fit and well cared for dogs are contented dogs, and they will respond much quicker to training than dogs whose management is carried out in a perfunctory manner. The effective application of a sound knowledge of kennel management will ensure that sickness is reduced to a minimum or if present is detected at its first onset.

SECTION 12.—GROOMING

43. A dog should be thoroughly groomed once a day. Not only does this clean the coat and skin but it helps to keep both in a healthy condition. It is during the grooming period also, that the dog is examined for wounds, injuries, skin trouble and external parasites and an inspection made of the eyes, teeth, ears, nails and anus. Grooming also gives an opportunity for the handler to become thoroughly acquainted with his dog.
Fig 3.—Grooming rails—suitable for units holding large number of dogs

Fig 4.—Grooming. Skin massage
Fig 5.—Grooming. Use of comb
44. The coat of a dog is composed of many thousands of hairs growing from individual hair follicles in the skin. Although its chief purpose is to give protection against the weather it also acts as a defence against injury. In winter, when the dog requires the maximum amount of warmth, it grows thicker, while during the hot weather many of the hairs fall out. Certain breeds like the Alsatian have two coats—a soft woolly undercoat which lies close to the skin and an outer coat composed of longer, coarser hair which is somewhat oily and water resistant.

45. The actual cleaning of the coat and skin is done with the aid of a brush and comb. The most suitable type of brush for war dogs is the dandy brush. A short-haired brush with crowded bristles collects the dirt and is very difficult to clean. The comb should be made of metal and the spacing of the teeth be such that its use does not bring away too much top or undercoat.

46. The dog is first given a vigorous massage with the tips of the fingers to loosen scaly skin and stimulate skin circulation (Fig 4). The coat is then brushed, at first against and then with the direction of growth of the hair. The comb is used to remove dead and tangled hair (Fig 5). During the winter months its use must be strictly limited as if used too freely much of the warm undercoat may be removed and the dog thus deprived of a very necessary protection.

Section 13.—Care of Eyes, Ears, Teeth, Nails and Anal Glands

47. Eyes.—Discharges when present should be removed with a clean cloth or cotton wool, either dry or soaked in clean, warm water. Eye lotions, unless specifically prescribed by a veterinary officer, should not be used. If any symptoms of infection or injury are noted, for example weeping or opacity, the dog must be taken for examination and treatment by a veterinary officer.

48. Teeth.—Normally the teeth of the dog require very little attention. Discoloured or stained teeth may be cleaned with a weak solution of hydrogen peroxide. Should the accumulation of tartar be excessive it may be necessary to scale them.

49. Ears.—The daily inspection and cleaning of the ears is most important. The accumulation of wax and dirt can, especially in long-eared dogs, cause severe inflammation and irritation. Wax and dirt are best removed with the aid of cotton wool, either dry or soaked in warm
water. Although the ear drum of a dog is well protected from injury, care should be taken when cleaning deep down in the ear canal as this can cause considerable discomfort to the dog.

50. Nails.—With regular exercise nails require little attention. However, they must be watched for overgrowth. Overgrown nails must be trimmed as, if left, they will split and cause lameness. Trimming should only be done by a properly trained person as over cutting will also produce lameness. The dew claws—rudimentary first digits—serve no useful purpose and may be removed surgically, but only by a veterinary surgeon. As they do not come in contact with the ground they suffer no wear and in consequence require regular cutting.

51. Anus.—The anus should be examined for segments of tapeworms protruding from the rectum and inflammation resulting from impacted anal glands. These glands lie on each side of the anus. The act of defaecation should normally express their contents, but they nevertheless frequently become impacted and require to be evacuated manually. To do so a piece of cotton wool should be placed over the anus and with the forefinger and thumb press firmly inwards on either side.

SECTION 14.—BATHING

52. Provided it receives a thorough daily grooming it should seldom, if ever, be necessary to bath a dog. Compatible with cleanliness a dog should be bathed as infrequently as possible.

53. The skin of the dog is rich in grease glands, the secretions of which keep the skin supple and impart to the coat its water resisting quality. Frequent bathing removes this natural grease. The resulting dry skin, cracks, with accompanying irritation and discomfort to the dog. The coat too, loses its gloss and takes on a harsh appearance.

54. If it becomes necessary to bath a dog, warm but not hot water should be used; the temperature should not exceed 100°F. Care must be taken to prevent soap and water entering the eyes and ears. This can be obviated in the latter by plugging them with cotton wool. As the skin of the dog is very sensitive only mild, bland soaps should be used. Carbolic soaps especially, if applied direct to the body can cause severe irritation. After the dog has been washed the coat must be thoroughly rinsed to remove all traces of soap and dried with towels. If the day is warm and sunny it may be encouraged to run about outside but on no account must it be exposed to inclement weather until it is properly dried.
SECTION 15.—FOODS AND FEEDING

Function of food and water

55. Food is necessary to the dog to:
   (a) Build up the tissues and organs during growth.
   (b) Make good the wastage due to wear and tear.
   (c) Keep up the body temperature.
   (d) Supply the necessary energy for internal and external work.

After ingestion the food is broken down into the following main constituents which are then utilised by the dog for the foregoing functions.

56. Water.—All foods, even those which have been naturally air dried, contain a certain amount of water. Most of the water a dog requires is consumed as drinking water, but a small amount is derived from the food.

Dogs can live for long periods without taking solid food but very quickly suffer if given no water. This is illustrated by the fact that a dog can lose practically all its fat and over half its flesh and still live, but a loss of one tenth of its water content will result in death.

Without water the dry matter of the food could neither be digested nor absorbed.

The total water needs of the animal varies with its environment and the quantity of food it consumes.

Food components

57. Carbohydrates.—These are energy producing substances and are contained mainly in cereals and vegetables. Foods of animal origin contain very little.

58. Fats.—These are found mainly in the fat portion of meat. After being absorbed they are either oxidized to provide energy or are laid down in the tissues as fat for future use.

59. Proteins.—These substances are required for flesh-making and tissue building. A young growing dog needs a higher proportion of them than the mature animal, in which they are mainly utilized to make good general wear and tear. They are mostly contained in meat, fish, milk and eggs.

60. Mineral Salts.—Forming as they do about 3 per cent of the dog’s body weight, the presence of mineral salts in the diet is most essential, especially in young animals. In the body they are found in the bones, hair, muscle, sweat and some fats. They are required mostly as compound of calcium and phosphorus and are contained in vegetables, cereals and bones.
61. Vitamins.—These accessory food factors are essential to the health and growth of the animal. They exercise an influence in the nutrition out of all proportion to the amount consumed. Their absence from a diet leads to definite symptoms of disease. They are of special importance during the period of growth of young animals. They are present in milk, fresh vegetables, meat and liver.

Balancing the diet

62. Whatever the diet, it must be balanced and satisfy the following requirements:

(a) It must be palatable.
(b) It must meet the energy needs of the animal.
(c) It must provide sufficient protein for growth and to make good any wear and tear.
(d) There must be a sufficient and balanced supply of the required minerals.
(e) All essential vitamins must be present.

63. It may be wrongly assumed that because a dog is a carnivorous animal it can live on diet composed solely of meat without the addition of cereals, vegetables, minerals or vitamins. The falseness of this assumption can be clearly appreciated if it is realized that in the wild state the dog preys on herbivorous animals and, consuming the whole carcass, obtains these very necessary components of the diet from the contents of the digestive organs and bones of its prey.

This natural balancing of the diet must be done artificially when dogs are kennel fed and the essential food components supplied in such quantities and proportions to maintain the body in a healthy condition.

Common foodstuffs and their preparation

64. Meat.—Although meat may be substituted by fish, soya meal or other foods rich in proteins, it is usually fed in preference as it makes a more palatable meal and is eaten with greater relish. It should form at least 50 per cent of the total ration.

Flesh from the various meat producing animals, including the horse, may be used. Parts of the carcass, such as the lungs, intestines and genitalia, which are considered unfit for human consumption are quite acceptable to the dog. Horse flesh often causes diarrhoea and, because of this undesirable effect on the bowels, its spasmodic feeding is not recommended. It should only be fed if the supply is such that it can be introduced to the diet gradually and can continue to be fed over a period.
Meat may be fed raw or cooked. Although raw meat is preferred by the dog it is usual to cook it, as, in this state, it is more easily mixed with the other components of the ration and the dog is thus not able to pick it out and leave the rest. If boiled the broth should be mixed in with the feed.

Tinned dog meat from reputable manufacturers can be fed as a substitute for fresh meat. Although not so attractive to the dog it can form a useful substitute where fresh meat is for any reason difficult to obtain or keep. It should be fed in the equivalent weight as fresh meat, without cooking, and well mixed with the other components of the ration.

Thorough cooking is of utmost importance when condemned meat is issued. If not done there is a grave risk, especially when the meat is from a tuberculous carcass, of the dog becoming infected.

Where fish is fed as a substitute for meat great care must be taken that all bones are removed before it is given to the animal.

65. Bones.—Although very much relished by the dog, bones are not an essential part of the diet. If they are included only large beef bones, which should be sawn through to allow the dog to get at the marrow, should be used. The action of gnawing a bone does clean the teeth but, it also causes their wear and if constantly supplied with bones some dogs may, in time, suffer from badly worn teeth.

On no account must bones that splinter such as lamb or chicken bones be given. The jagged ends may cause serious injury and even death by puncturing the digestive tract, or the rectum may become impacted with small pieces of bone and constipation or proctitis (inflammation of the rectum) result.

Bones are best ground down into meal and mixed with the rest of the ration. In this form the dog is able to obtain the full benefit of their mineral content.

66. Biscuits.—As well as providing the essential carbohydrate component of the ration, biscuits, by increasing the roughage, aid the digestion.

Although many of the biscuits manufactured to-day are in themselves an all-round food, they should never replace meat. Their feeding value can only be correctly gauged if their composition is known and this information should always be sought.

Biscuits are supplied in many various shapes and as meal. Whatever the type they should be carefully examined for weevil or any deterioration due to bad storage which may cause digestive disorders.

They are best fed soaked in the broth from the meat or, if the meat is fed raw, with a little hot water, and then mixed thoroughly with the meat and vegetable components,
67. Porridge.—Oats in the form of porridge may be fed in lieu of biscuits. They make a very suitable substitute and dogs do very well on them.

68. Bread.—Bread may also be used and should be dried or toasted and fed in the same way as biscuit.

69. Rice.—When necessary rice may be used as a substitute for biscuit. The unpolished variety is superior to the polished and it should be well boiled before being fed.

70. Vegetables.—Dogs normally do not voluntarily eat vegetables but, nevertheless, they are a most important part of the ration as they contain minerals and vitamins.

All varieties of green vegetables are suitable and to ensure that the accessory food factors are not destroyed by heat they should be fed raw. When green vegetables are not available young nettle leaves may be used to advantage. Of the root vegetables, carrots and parsnips are the most suitable.

To facilitate their proper mixing with the feed it is advisable to put them through a mincing machine. Where this cannot be done they should be chopped up into pieces as small as possible.

Vegetables should form approximately 10 per cent of the total ration.

Practical feeding

71. The stomach of the dog is large in comparison to the remainder of the digestive tract. A dog is thus capable of consuming a large quantity of food at one feed and subsisting for long periods between feeds. For this reason adult dogs need only be fed once a day. To prevent any disturbance of the digestive process the hour of feeding should be the same every day.

72. The following factors govern the selection of the feeding time:—

(a) Dogs should not be fed immediately before or after work.

(b) In very hot weather it is inadvisable to feed during the heat of the day.

73. In training establishments dogs should be fed in the late afternoon, sufficient time being left after feeding for the dogs to be given the opportunity of emptying themselves, before being kennelled up for the night. When employed on night patrols they should be fed in the morning and allowed to rest for the remainder of the day until time for duty.

While feed times on operations will probably have to vary, handlers must aim to feed their dogs well in advance of any assignment for which they and their dogs might be required.
74. For the average Alsatian weighing between 70 lbs and 80 lbs, in full work, the following is the normal feed scale:

- Meat 24 oz (without bone or gristle)
- Biscuits 16 oz
- Vegetables 4 oz

The biscuit ration may, especially during hot weather or in the tropics, prove to be too big and may be reduced. Where individual items are unobtainable suitable equivalents may be substituted.

75. The preparation of the food should be done as near the feeding time as possible. If prepared a long period in advance, changes which may adversely affect the dogs, sometimes take place in the mixture.

Once the feeds have been issued the dogs must be left to consume them undisturbed. A healthy dog is a ravenous eater and should finish its feed in about 5 minutes or less. Immediately after feeding, all feed bowls should be removed from the kennels; unconsumed food put in a swill bin and the bowls thoroughly scoured in boiling water. Only in cases of known shy feeders should food be left in the kennel.

76. As major changes in the diet are very often accompanied by mild digestive disorders and resultant diarrhoea, it is advisable to bring about any such changes gradually and so allow the digestive system to adjust itself to the new diet.

Water

77. For practical purposes it is doubtful if any healthy dog ever drinks too much water voluntarily and the best results are obtained if a plentiful fresh, clean supply is always available for it to drink.

Section 16—Exercise

78. To maintain a dog in a healthy, well muscled condition, it must be given regular daily exercise. Insufficient exercise may be the indirect cause of obesity, constipation and skin disorder. Exercise may be either free or organized. Free exercise is carried out individually and may be done on or off the lead. A dog which is not under the complete control of its handler should never be exercised off the lead. It is inadvisable with guard dogs, even when well trained, to exercise them off the lead in the vicinity of other dogs. Free exercise will always be given at first kennel parade, after feeding, and before kennelling up at night to allow the dog to empty itself.

79. Organized exercise in squads should form part of the dog's training and should include long road walks to harden its feet and accustom it to traffic. It is during this type of exercise that the dog learns to walk properly to heel and is taught when ordered to ignore extraneous interests.
80. The amount of exercise that a dog will be given varies with the work it is doing. For example, a trained guard dog doing night patrols will only require sufficient exercise when coming off patrol to give it an opportunity of emptying itself. A dog which has a free run attached to its kennel will require less exercise than one kept chained or in an enclosed kennel without a run. In training kennels it should, in addition to its normal training periods be given at least half an hour free exercise a day and organized exercise of two hours twice weekly.

SECTION 17.—KENNELLING

Types of kennel
81. Kennels may be of a permanent or temporary character but, whatever the type, they must conform to certain basic standards. They must:

(a) be water-tight and wind-proof,
(b) be adequately ventilated without being draughty,
(c) be large enough for the dog to stand up and lie down in comfort.

Siting
82. Considerable care must be taken in the correct siting of projected kennels. Quietness and good drainage are two of the most important factors. Dogs kennelled near busy thoroughfares or noisy workshops will be constantly disturbed and their rest seriously interrupted. In barracks, if kennels are put adjacent to barrack blocks, the dogs will, in all probability receive the undesirable attention of passing troops. As their training is directed to knowing only one or two masters this contact with other human beings will have a detrimental effect on their standard of training. Kennels should preferably be erected on hard standings but, where this is not feasible well drained ground should be chosen.

83. Once kennels have been erected, especially in barracks, it is advisable to post warning notices that the area is out of bounds to all personnel except those directly responsible for the dogs.

84. When siting training kennels due consideration must be given to the proximity of training areas as much valuable time can be lost if these areas are some distance from the kennels. The ideal training ground should include as great a variety of terrain as possible. The size of the area required is directly related to the number of dogs in training. Each training squad must be allowed sufficient ground to work undisturbed by any other squad.
Permanent kennels

85. Whenever the circumstances permit it is always desirable to build permanent kennels but, normally this will only be an economic proposition in training establishments and static installations employing a number of dogs.

It is usual to group permanent kennels into blocks. Depending on the number of kennels required these may be either single or double. Where double blocks are built they may be erected back to back or separated by a central passage.

Brick or heavy wire mesh partitions between kennels may be used. Wire has the disadvantage that certain dogs tend to fret and bark when they can see their neighbours. However, in time, they usually settle down in mutual harmony. Each kennel must have a raised sleeping accommodation and exercise run. Concrete floors and passages will always be provided. Brick floors should be avoided as they wear uneven and are porous.

Each kennel, inclusive of sleeping accommodation and run, should not be less than 80 sq ft.

86. Each kennel must be supplied with a bed-board raised a few inches off the ground. If dogs are made to sleep on concrete floors many cases of rheumatism and accompanying lameness will result. The bed board must be removable so that it can be taken out and scrubbed regularly.

87. Drainage.—The fall of the floor should be such that all water runs into gutters which connect with traps outside the blocks. It is most important that no stagnant water or sewage is allowed to collect inside the kennels or blocks.

88. Ventilation.—A system of ventilation must be adopted which, while ensuring a constant change of air does not introduce draughts.

89. Light.—The lighting system must be such that the fullest benefit is obtained from natural sunlight. In badly lighted kennels dirt escapes unnoticed and a certain amount of strain is imposed on the dog’s sight.

An adequate artificial lighting system must also be installed, preferably electrical. Where electricity is used the wires should be encased in metal tubes to eliminate any possibility of a dog’s biting through the wire and so receiving a shock.

90. Heat.—Any form of artificial heating is quite unnecessary and its use should be confined solely to hospital kennels. It is of the utmost importance that, during their training, war dogs are hardened to withstand the rigorous conditions of active service. The introduction of artificial heating to kennels would not only retard this process but might
result in the lowering of the body’s resistance to cold, and thus increase
the incidence of sickness. Provided the kennel has been properly con-
structed the natural thickening of the coat in winter, plus the addition of
bedding, should be sufficient to maintain the body heat. Thin coated
dogs may require the added warmth provided by a dog rug.

Temporary kennels

91. Although the term temporary is used to describe this type of kennel
it does not imply that the kennel itself should give any less comfort or
protection than the permanent type. It must conform to the basic
principles for kennels generally and be sufficiently durable to withstand
hard usage.

The size of the kennel, which is built as a separate unit, depends on
the type of dog to be kennelled. For an Alsatian the measurement should
not be less than 3 feet 6 inches long 2 feet 3 inches wide and 2 feet
6 inches high. A flat, slightly sloping roof, which allows the dog to lie
out on it in sunny weather and can also be used as a grooming bench, is
most suitable. It should be hinged at one end so that it can be raised to
various heights as an aid to ventilation, and to open fully to facilitate
cleaning the kennel. A projecting canopy which protects the front of the
kennel from the driving rain and sun is an advantage. To obviate the
possibility of dampness seeping through the floor, the kennel should
have legs which raise it at least 6 inches from the ground.

92. Wine, whisky or beer barrels may be used in an emergency but
their universal use is not advised; being round it is very difficult for the
dog to rest comfortably. If the barrel is large enough this fault can be
remedied by inserting a flat board. To keep them on an even keel and
to raise them from the ground they should be mounted on two cradles
which are firmly fixed to the ground.

93. Temporary kennels must always be placed in such a position that
their closed ends face the direction of the prevailing wind.

If it is impossible to set them on hard standings they must be
regularly moved to fresh ground otherwise the area immediately
surrounding them will become fouled and muddy. This may, to some
extent, be obviated if drainage channels are dug between kennels.

94. In the field it will rarely, if ever, be possible to carry any type of
kennel and protection from the sun and rain will have to be devised
from material available eg, tarpaulins, branches of trees etc. Although
it is generally recommended that wherever possible a dog be provided
with its own protection there are occasions, especially in the jungle where
sharing of its handler’s bivouac might be necessary to stop restlessness or
whining. It also ensures that any silent warning the dog might give is
immediately transmitted to its handler.
Fig 6.—Permanent block of brick kennels and cookhouse

Fig 7.—Double block permanent kennels
Fig 8.—Permanent kennels. Caged run with pedestal-type sleeping accommodation
SECTION 18.—CLOTHING

95. The general introduction of clothing into kennels is to be discouraged and its use confined to those dogs whose coats give them insufficient protection in cold weather and to sick dogs. Provided dogs are kept in draught free kennels and are given a supply of bedding, the coat, thickening as it does in the winter, is usually, even in the coldest of weather, sufficient for the maintenance of body heat.

96. The most suitable type of covering or rug is one made from waterproof cloth and lined with blanketimg material. Each dog must be individually fitted as badly fitting rugs will not stay in position and galling of the skin may be caused.

97. Once rugs have been issued there must be no interchange of them between dogs. To this end it is advisable that each rug should bear the name or number of the dog to which it belongs. It must be borne in mind that rugs can harbour skin parasites and if their use is not strictly controlled they may cause the spread of infection throughout a kennel.

98. Rugs should be thoroughly brushed daily to remove all dirt and adhering hairs and, during dry weather spread out on the ground during the grooming period. When their use is no longer desired they should be scrubbed with soap and water and dried before returning them to store.

SECTION 19.—BEDDING

99. The provision of bedding is not essential and its use should be restricted to giving additional warmth in cold weather and to aid in the prevention of bed sores in thin coated dogs.

100. The most common form of bedding is straw but, in an emergency paper may be utilised. Blankets are not recommended as they are difficult to clean and require regular disinfection. Badly broken straw should not be used as besides getting into the coat and being difficult to remove it may cause skin irritation.

Straw bedding should be thoroughly shaken up daily, and wet and contaminated straw removed and burnt. The bed should be completely changed once a week and the old bedding burnt.

In the field heather or bracken may be used if the conditions are such as to warrant the use of bedding.
SECTION 20.—ISOLATION AND HOSPITALISATION

101. In kennels where a large number of dogs are kept, separate accommodation must be allotted as:—

(a) Isolation kennels.
(b) Hospital kennels.

102. Isolation kennels should be used solely for the kennelling of dogs suffering, or suspected of suffering, from infectious or contagious disease. They should be self contained and be sited sufficiently distant from the main kennels to eliminate any possibility of contact between healthy and infected dogs. As personnel detailed for duty in these kennels may themselves be the means of spreading infection, they must be forbidden access to the main kennels.

103. In training establishments, to prevent the introduction of infectious disease, provision must also be made for the quarantine of newly purchased dogs and dogs returned from units. Unless the circumstances are such as to warrant its reduction, the quarantine period should not be less than 21 days.

104. To ensure the proper care and treatment of sick dogs a hospital block consisting of a pharmacy, treatment room and sufficient heated kennels to accommodate 5 per cent of the total dogs held should be provided. It should also be supplied with its own cooking facilities so that special sick diets may be prepared.

SECTION 21.—KENNEL HYGIENE

105. Kennels should be thoroughly cleaned daily and all soiled bedding and excreta removed and burnt. Bed boards should be scrubbed with soap and water once a week and due care taken that they are completely dry before being returned to the kennels. Any excessive dampness may induce symptoms of rheumatism, an ailment to which dogs are particularly prone. For this reason too, the indiscriminate washing down of kennels must be restrained and, in winter and wet weather especially, the free use of water should be reduced to the minimum consistent with cleanliness. When floors have been washed or hosed as much of the surface water as possible should be brushed into the drains.

106. Unless proper disinfection is required as the result of the presence of contagious or infectious disease the use of disinfectants except as deodorants is not necessary. As dogs are very susceptible to carbolic poisoning the use of the carbolic group of disinfectants must be strictly supervised.
107. All excreta should be regularly removed from the exercising grounds in the vicinity of the kennels and burnt. If the supply permits, the area should be disinfected with lime once a year.

108. The ground around temporary kennels should be raked over daily and gravel or sand added as required.

SECTION 22.—DISINFECTION OF KENNELS

109. Whenever the presence of an infectious or contagious disease has been confirmed, or even suspected, thorough disinfection of the individual kennel concerned or the whole kennel block, if the disease is widespread, must be vigorously carried out.

110. Intense heat is the most reliable form of disinfectant and, where its use does not incur the possibility of fire, it should be employed by means of the painter’s blow lamp. Where the danger of fire precludes its use some reliable liquid disinfectant must be employed. The disinfectant properties of the sun and air must not be overlooked and full advantage should be taken of them.

111. All brick walls, floors and iron work should be thoroughly flamed with a blow lamp and wooden fixtures washed with disinfectant. Movable furniture such as bed boards, and feeding utensils should be scrubbed and left out in the sun to dry. If grooming brushes are considered worth retaining they should be soaked for several hours in a 3 per cent solution of Cresol. Rugs may be scrubbed with soap and water or soaked in a 3 per cent Cresol solution and dried in the sun. All articles which have been soaked in a disinfectant solution must be washed in clean water before drying.

112. It should be borne in mind that whitewash itself has little or no disinfectant properties and its application to walls should be withheld until they have been disinfected by some other means.

113. Even after a kennel has been disinfected it is advisable where the circumstances permit to leave it empty for a period of fourteen days.

SECTION 23.—BITCHES IN SEASON

114. The period of season in the bitch is the only time that it will accept the attention of the male dog. Most bitches have two seasons a year, each of which lasts about 21 days.
115. As casual mating in war dog kennels is most undesirable it is essential that personnel charged with the care and management of war dogs are able to recognize the signs of season so that immediate steps can be taken to isolate the affected bitch.

116. The vulva (external genitals of the bitch) swells, the lining membrane becomes reddened and a bloody discharge trickles from its lower end. The bitch although attracting the attention of male dogs may at first repel their advances but, as the season progresses it shows pleasure in their attention. About the tenth day the discharge usually ceases but the vulva still remains swollen. It is from this day until the fourteenth day that mating is most liable to occur. The swelling of the vulva gradually subsides and the lining membrane returns to its normal salmon pink colour. The bitch can usually be discharged from isolation after 21 days.

SECTION 24.—KENNEL MANAGEMENT IN TROPICAL AND SUB-TROPICAL COUNTRIES

117. In view of the different conditions prevailing in tropical and sub-tropical climates special reference must be made to certain aspects of kennel management.

118. Acclimatization.—Acclimatization is the process by which the body adjusts itself to marked changes of climate and or altitude. In the dog the period required to complete the process varies considerably according to the degree of change and to the individual. Dogs imported from temperate regions into tropical climates may require anything up to two months to acclimatize themselves and become fit for full work. During this period exercise which at first must be kept to gentle walking is gradually increased, great care being taken throughout to avoid any over exertion. Failure to observe this acclimatizing period may result in the health of the dog being seriously affected.

119. Kennelling.—Every care must be taken to ensure the kennels are as cool as practicable, well ventilated and that the maximum protection is afforded against the sun and tropical rain. For coolness roofs should be given as much height as possible and constructed of or lined with non heat conducting materials. The eaves should overhang and where solid walls are provided sufficient space must be left between them and the roof to permit the free flow of air.

Because of the presence of rabies in many tropical countries it is advisable to make provision, in addition to the normal isolation facilities, for a strongly constructed kennel with staples for two chains, for the isolation and observation of any suspected case of rabies.
120. **Exercise.**—While exercise during the heat of the day may, in those dogs which have very thick undercoats, are overweight or which have not been properly acclimatized, cause distress or even collapse from heat exhaustion, hard fit animals are not affected and can be exercised or worked with impunity.

121. **Clipping.**—Provided thick undercoats and all loose hair are removed by regular daily combing clipping, except for veterinary reasons, is not necessary and should not be practised. Clipped dogs are denied the natural protection provided by their coats and are liable to injury from thorns and similar sharp vegetation.

122. **Bedding.**—Apart from a wooden bed board, bedding is neither necessary nor desirable, except for the prevention of bed sores in individual thin coated dogs. Its main disadvantage is, that in infested areas it can form a reservoir for ticks and its use must be very strictly controlled. It must be frequently changed and used bedding burnt immediately.

123. **Clothing.**—Notwithstanding the marked variation between day and night temperatures frequently experienced in some tropical regions the necessity for protective clothing does not often arise. However, some thin coated dogs may require protection, especially during the monsoon and in tropical highlands, and a percentage of coats should always be available.

124. **Tick control.**—Being transmitters of biliary fever the energetic control of ticks in areas where they abound is of vital importance. Ticks are blood sucking parasites which attach themselves to the skin for varying periods of time. If numerous they can be very irritating to the dog causing restlessness and subsequent loss of condition. Gross infestation may result in anaemia.

During grooming and on their return from exercise each dog should be thoroughly “deticked”. Ticks are most frequently found round the head, especially in the ears and the fold of the ear flap, on the muzzle between the toes and to a lesser degree on other parts of the body. Great care must be exercised in their removal as if roughly pulled off the head may remain embedded in the skin with resultant abscess formation. They are best removed with forceps or burnt off with a cigarette. However, with care and practice they can be removed quite efficiently with the fore finger and thumb. Once removed they should be placed in a tin and burnt when the operation is completed.

Regular weekly dipping of all dogs in some reliable dip does much to reduce the incidence of ticks. Gammexane has been commonly used for this purpose, and the dip is prepared by mixing the powdered
Gammexane with water in the proportion of 8 ozs powder to 1 gal water. The residue left after dipping can be used to spray the inside of the kennels.

To prevent the entry of ticks into kennels each permanent kennel block should have a concrete surround extending at least six feet beyond the kennels. All vegetation within 3 to 4 yards of the kennels must be destroyed by burning. In areas where the fire risk precludes burning liquid insecticides can be sprayed on the vegetation instead. The kennels themselves must be regularly disinfected, particular attention being paid to crevices and cracks in the concrete. The blow lamp will be found of value in dealing with these latter sites.

125. Leeches.—Although leeches do not transmit disease they are a nuisance and in large numbers may cause anaemia. They commonly attach themselves to the belly and flanks from where they can be easily burnt off with a cigarette. As with ticks the head must not be left embedded in the skin. A favourite site is inside one or both nostrils from where, without the aid of an ethyl chloride spray, they are very difficult to evict. Several methods have been suggested and tried, such as injecting a salt solution up the affected nostril or watching for the leech to show itself and then grasping it with forceps. But neither method is certain. If all efforts fail and the dog is showing signs of distress professional assistance must be sought.

CHAPTER VI

TRAINING

SECTION 25.—PERSONNEL SELECTION

126. Dog training is an art and must be considered as such. The careful selection of training personnel is therefore of the greatest importance. The cardinal characteristics of a dog trainer are intelligence, faithfulness to duty, patience, an even temperament and a natural sympathetic understanding and love of dogs. A trainer without these characteristics will not only be unsuccessful but will become a liability to a training establishment. A knowledge of the individual’s previous employment will often help in assessing his suitability. Shepherds, game keepers and hunt servants very often possess the required qualifications but the fact that a man has had little or no previous experience does not necessarily indicate that he will be unsuitable. Again one must be very careful to avoid the man who because he has owned a dog, thinks in consequence that his knowledge is complete and that he has nothing else to learn.
PROCUREMENT OF DOGS

127. Dogs may be obtained by the following methods:—
(a) From dogs’ homes.
(b) From the public as gifts.
(c) By purchase.
(d) By breeding.

Of these four methods by far the most satisfactory is by purchase. It is recommended that the buying be done through reputable breeders or dealers who, having been briefed as to the type of dog required are able to produce for the purchasing officer a suitable selection from which to choose.

128. When possible dogs should be obtained for a 10 to 14 day probationary period. During this period the dogs’ potentialities can be assessed, thus avoiding the purchase of dogs which require to be cast subsequently.

129. During both world wars hundreds of dogs were loaned to the Army by civilians for the duration of hostilities. Although many first class dogs were thus obtained, it entailed endless correspondence as owners desired to be regularly informed of their pets’ welfare. Again, with the coming of peace these dogs had to be returned to their owners and their services lost to the Army.

130. Successful breeding is fraught with many difficulties and should only be undertaken if a sufficient supply of dogs cannot be obtained by other means.

SELECTION OF DOGS

131. Earlier in this manual is given a list of breeds which, with their crosses, have been found suitable for military training. It must be appreciated that because the breed itself is considered suitable, it does not follow that each individual member will itself possess the required qualities. It is therefore necessary that a careful screening of each dog be made before it is accepted.

132. Age.—18 months to 3 years. Dogs younger than 18 months are still physically and mentally undeveloped and although receptive to training in simple obedience, do not respond readily to the more vigorous training required of army dogs. Some flexibility in the lower age limit is however permitted when selecting potential tracker dogs as these require a longer training time than other types of military dogs. Dogs over 3 years are not so pliable or quick to learn.
133. *Sex.*—It is recommended where possible that only male dogs be chosen. During the season periods bitches require to be isolated to escape the attention of male dogs and this is not always easy outside a proper training establishment.

134. *Physical fitness.*—The veterinary examination must be thorough and complete and any dog showing signs of disease or permanent disabilities from previous infections, e.g., distemper teeth, chorea, etc, must be rejected.

135. *Conformation.*—Selected dogs must have well proportioned bodies and good bone. The chest should be deep and the ribs well sprung; the feet well formed and the pads hard and well cushioned. Except for boxers the jaw must not be undershot. When trotted the movements must be easy and smooth without any signs of inherent weakness.

136. *Temperament.*—The general impression must be one of energy, alertness and vigour with no sign of timidness or excitability.

Individual dogs must also be tested for gun-shyness and any dog showing a tendency to cower or run away rejected. Blank ammunition fired from a rifle or light automatic weapon provides a suitable means of testing.

**SECTION 28.—PRINCIPLES OF TRAINING**

137. The fundamental principles of dog training are firmness, patience, and kindness. Kindness must not be confused with softness, and the dog must be made to understand early in its training that an order once given, must be obeyed and obeyed immediately. It is the natural desire of a dog to please and advantage is taken of this admirable trait in its training. To enable it to understand that it has carried out its trainer's wishes it should be immediately rewarded when an order has been correctly obeyed. The reward may be either verbal praise, an encouraging pat or a titbit such as a small piece of meat. Mistakes must be checked at once and the exercise repeated. Repetition is a most important factor in implanting the requirements of a command on a dog's memory. Physical violence, even for wilful disobedience, must never be resorted to as the dog may become sullen, stubborn or cowed. If it is necessary to administer a rebuke, a gruff word or a sharp tap on the hind quarters should suffice.
138. Whatever the type of training, the lesson must always finish on a successful note. The dog should never be put back into kennels immediately after being reproved for failing to carry out a command. Where the exercise is difficult and the trainer realizes that the dog is unable to grasp it in that particular lesson, it should be allowed to perform some exercises in which it is proficient before returning it to kennels.

139. Training periods must not be too long otherwise the dog becomes bored and loses interest. It is infinitely better to have two training periods a day of half an hour than one long one.

140. Dogs are not all mentally equal and their powers of grasping what is required vary. Thus, some dogs will progress more quickly in training than others. It is incumbent on the trainer to appreciate this fact and not try to force all his dogs on at the same rate. For this reason the length of training noted for the different types of training can only be taken as approximate.

SECTION 29.—OBEDIENCE TRAINING

141. Before any specialized form of training is attempted the dog must be given a thorough grounding in obedience. It is during this initial training that the trainer masters his dog and the latter is conditioned to become more receptive to the requirements of specialized training. The dog is taught to obey five basic words of command.

Words of command:—

142. Heel.—At the command “Heel” the dog should walk at its trainer’s left side on a loose lead with its shoulder level with the trainer’s knee (Fig 9).

As in all initial training this exercise is done on the lead which the trainer carries in his right hand. On moving forward the trainer gives the command “Heel” at the same time jerking slightly on the lead. If the dog moves too far forward the lead is grasped in the left hand and the dog jerked back to the correct position at the same time the command “Heel” is given. Conversely if the dog falls back it is jerked forward or encouraged to the heel position by the trainer patting his thigh. Whenever the dog fails to maintain its correct position the command “Heel” must be given immediately. In the early stages this will usually be accompanied by physical correction as well. However, as training progresses the command itself will normally suffice. Checking with the lead must always be done sharply and not by a long even pull otherwise the dog will tense its muscles and lean forward on the collar. As the dog becomes more proficient drill movements should be introduced eg, Right turn, Left turn, About turn, Wheeling etc.
143. *Sit.*—At the command "Sit" the dog should immediately assume the sitting position (Fig 10).

If the dog is standing the lead is held firmly in the right hand to prevent the dog lowering its fore-quarters while the left hand is placed on the dog's hind-quarters and pressed down, at the same time giving the command "Sit" (Fig 11).

When the dog is in the down position, the left hand is placed on the quarters to prevent it raising them and the fore-quarters lifted by the lead with the right hand, giving as before, the command "Sit".

If the dog does not sit facing directly forward, turns either to its left or right, the trainer swings its body with his left hand to the correct position.

When it is desired to move forward the trainer gives the command "Heel".

A dog should never be left any length of time in the sitting position. Where it is intended to do so it should be put in the down position.

144. *Down.*—At the command "Down" the dog must lie down whether it is sitting or standing (Fig 12).

As the trainer gives the command "Down" he grasps the lead close to the collar and with a series of downward jerks the dog is made to lie (Fig 13). If the dog braces itself and refuses to go down the trainer grasps the fore legs with his free hand and pulls them forward, pulls down on the lead and at the same times gives the command "Down".

145. *Stay.*—On the command "Stay" the dog should remain in the position it was when the command was given. It is usual to give this command in the down position although it may be given in the standing or sitting position (Fig 14).

The trainer gives the command "Stay" and then gradually backs away to the fullest extent of the lead (Fig 15), repeating the command several times in a long drawn out firm manner. If the dog moves the trainer walks back, passes behind it to its right side, replaces it in its original position and begins the exercise over again. It is sometimes advantageous when backing away to point one forefinger at the dog while giving the command "Stay". As the exercise is repeated, the interval before the trainer returns to the dog is increased. Finally, the trainer, having given the command "Stay" and placed the lead on the dog's back or on the ground along side it, can walk away out of sight without the dog moving.
146. *Come.*—The command "*Come*" is given from the stay position and should always be preceded by the dog's name. Having been given it, the dog should immediately return to its trainer and sit in front of him, until the command "*Heel*" is given, when it should walk round behind the trainer to his left side and sit.

Having given the commands "*Down*" and "*Stay*" the trainer backs to the fullest extent of the lead and faces the dog. Then calling the dog's name and giving the command "*Come*" he pulls gently on the lead, repeating the command "*Come*". As soon as the dog comes to the trainer, he gives the command "*Sit*" and if necessary helps with his hands to make the dog sit facing him (Fig 16). The trainer next gives the command "*Heel*", at the same time pulling gently on the lead with his right hand, so forcing the dog to move behind him. He transfers the lead to his left hand and thus brings the dog round to the heel position (Fig 17) where it is given the command "*Sit*".

**Drill movements**

147. Appendix A describes the drill movements and commands which will be used by persons when handling war dogs. The various movements, as they affect the dog, are based on obedience training.

**SECTION 30.—BATTLE INOCULATION**

148. While all dogs at purchase are tested for gun shyness the test is only made with small calibre blank ammunition. It will therefore be necessary for those dogs likely to be subjected to the more thunderous noises of battle to receive further training. It is advisable to start training when the dog's interest is completely absorbed in some other activity such as at feeding time or during a training period. The trainer will always be present to soothe the dog should it exhibit signs of nervousness. Battle simulation may be simply produced by exploding thunderflashes and banging bin lids together. The sound effects are at first introduced from a distance and then gradually brought closer and closer. Where explosives are used care must be taken that they are not detonated sufficiently close to cause injury to the dog. Should the dog at any time during the lesson show undue alarm the lesson must be immediately stopped.

149. If dogs have been conscientiously tested for gun shyness at purchase they can, with rare exceptions, be trained to ignore the sounds of battle. The exceptional dog does however develop a nervousness towards gunfire and those that do must be rejected.
Fig 9.—Walking at heel

Fig 10.—Sitting position

Fig 11.—Teaching a dog to sit

Fig 12.—Down position
Fig 13.—Teaching a dog to go down from the sitting position

Fig 14.—Down to stay
Fig 15.—The initial stage of training dogs to stay in the down position.

Fig 16.—A dog sitting down in front of its trainer after being given the command "Come."
Fig 17.—Bringing a dog to heel

Fig 18.—Jumping lesson over a low scramble board
Fig 19.—Jumping lesson on a high scramble board
SECTION 31.—VEHICLE TRAVEL

150. Occasionally individual dogs which before purchase have been unaccustomed to travel in motor vehicles may exhibit signs of sickness when made to travel in MT. If however the vehicle is stopped the symptoms quickly subside and after several training journeys will not reappear.

151. Most dogs love travelling in trucks and require little or no encouragement to enter them.

152. When loading into trucks dogs may be lifted in by their handlers or encouraged to jump in. In the latter method care must be taken that any space between the floor of the truck and the lowered tail board is temporarily filled in, otherwise, a dog may drop one of its legs into the space and suffer a fracture. A simple and quick method is for the handler to place his forearm along the gap.

SECTION 32.—GUARD DOG TRAINING

153. General.—When originally introduced guard dogs, because they were employed for the protection of vulnerable points, were generally referred to as “VP Dogs”. This description has now however largely fallen into disuse. The term “Combat Dog” has also been used to designate a particularly aggressive and ferocious animal employed against bandits or ruthless armed thieves.

154. Type of dog.—Temperament: A bold dog with a naturally aggressive temperament should be chosen. Under-aggressive dogs can rarely be brought up to the required standard of attack and therefore must not be selected.

155. Size.—Medium to large. It is not advisable to choose too big specimens as, if they are at all over aggressive, great difficulty will be experienced in their control. The most suitable type is one that stands between 22 and 26 inches and weighs from 60 to 80 pounds.

156. Breeds.—The following breeds are suitable for training:—Airedale, Alsatian, Boxer, Rottweiler, Dobermann Pinscher, Malinois, and Groenendael.

157. Training equipment.—Lead, collar, padded sleeve and suit and box muzzle. Fencing mask to protect face in baiting combat dogs.

158. Standard of efficiency.—A trained guard dog must:

(a) Be obedient to the following words of command:—Heel, sit, down, stay, come, attack and leave.
(b) When used as a static sentry, alert its handler to anyone's approach by straining on the lead.

(c) When on patrol indicate the presence of a hidden person or persons by pointing and straining on the lead in the r direction. These points vary considerably, and are directly dependent on the prevailing weather conditions and the area over which the dog is patrolling.

(d) When ordered, attack and hold a man. This may be done either on the lead or loose.

(e) Defend its handler, without command, if he is attacked.

Training

159. Static sentry.—In the initial stages the dog is taken to a wooded area and made to sit by the trainer's side. The baiter, who has been in hiding, and who is armed with a light switch and a rolled up piece of sacking, then approaches in a suspicious manner. The approach must not be direct but at a crouching run from tree to tree. Immediately the dog has shown that it is aware of the baiter's presence the trainer encourages it with "Good dog", "Watch him". The baiter gradually approaches nearer until he is near enough to use the switch on the dog's legs sufficiently hard to annoy it but not hurt it. On no account must the switch be used on the head. A normal aggressive dog will become resentful and when presented with the rolled sacking will attack it. The trainer with his free hand gives encouraging pats to the dog's flank. After about 10 to 15 seconds the baiter runs away. The trainer then gives the command "Attack" in a firm tone, and, with the dog gives chase for about 20 yards. The baiter disappears amongst the trees and the dog is praised. It is essential in this type of training that the dog always wins.

After the initial stage has been conquered, the dog is next taught to attack and leave a padded sleeve. As before, the baiter approaches in a suspicious manner, but this time his right arm is completely protected by a well padded sleeve. In his left hand he again carries a light switch. When he is within about 3 yards of the dog the trainer gives the command "Attack" and moves forward sharply. The baiter presents his padded arm, which the dog is encouraged to attack and worry, and at the same time he uses the switch on its legs. After about 15 seconds the baiter stands motionless and the trainer gives the command "Leave". If the dog refuses to loose hold of the sleeve the trainer grasps its collar in his left hand, and twisting it, forces the dog to release its hold. The trainer then retires a few paces and makes the dog sit at his left side. The baiter now retreats rapidly and the trainer, giving the command "Attack", follows with the dog until the baiter has disappeared out of sight.
Fig 20.—Guard dog—sleeve attack

Fig 21.—Loose attack on baiter protected by a padded suit
As training progresses and to ascertain whether the dog is sleeve-conscious (a sleeve-conscious dog is one that attacks the sleeve in preference to the man and will continue to worry it after it has been dropped by the baiter) the baiter slips the sleeve when the dog is worrying it and runs away (Fig 20). The dog should immediately leave the sleeve and give chase with its trainer. If it fails to do so, the trainer forces it to leave in the manner described above and gives the command “Leave”. As before the baiter is chased until he disappears in the trees and the dog is praised.

160. Patrolling sentry.—When the dog has become proficient at static sentry work, it is then introduced to the more advanced training of patrolling sentry. It is taught to detect a person in hiding, and, if ordered, attack him.

The trainer, with his dog at the heel position, patrols close to some cover e.g., bushes or trees, where the baiter, wearing a padded sleeve, is hiding. The patrol must always be made down wind of, and parallel to the hidden man. If the dog passes the baiter without giving any indication of his presence the patrol is repeated. This time the baiter attracts the dog’s attention by rustling leaves or breaking a stick. Once the dog is fully alerted, the trainer gives the command “Attack” and runs in towards the baiter, who, leaving his “hide”, allows the dog to attack and worry the sleeve. The distance from the patrol to the hidden man is increased until the dog, under favourable conditions, will indicate his presence up to a distance of 50 yards.

161. When it is considered that the dog has attained a sufficiently high standard of obedience on the sleeve, it is allowed to attack loose a baiter completely protected by a padded suit (Fig 21). The trainer no longer runs in with his dog, but having ordered it to attack, drops the lead and allows it to go in by itself. The trainer controls the attack from a distance and brings about its cessation by ordering the baiter to remain still, and then giving the commands “Leave” and “Heel”.

162. As a final assurance that the dog is not just attacking the sleeve or suit, it is fitted with a strong box muzzle and ordered to attack a baiter wearing no protective clothing (Fig 22).

163. Throughout the training great care must be taken to avoid accidents and possible injury to the baiter. Special attention will therefore be paid to the following points. All training equipment must be checked for serviceability. This particularly applies to the collar and lead, especially the clip. The handler must be instructed never to approach close enough for the dog to evade the sleeve and attack the unprotected legs of the baiter instead. When running into the attack,
with the dog on a lead, the handler must so regulate his speed to avoid stumbling and subsequent loss of control of his dog. Before releasing an unmuzzled dog to attack, the handler must be absolutely certain it is aimed on the baiter.

164. Length of training.—Up to 10 weeks.

SECTION 33.—SECURITY DOG TRAINING

165. General.—The security dog, sometimes referred to as a police dog, although, in many respects related to the guard dog, does not possess its aggressive qualities.

166. Type of dog.—Temperament: A bold, but not aggressive dog, is required. It must be very receptive to obedience training, and show a natural desire to quarter and search.

Size: Medium to large.

Breeds: Because of their impressive appearance, and consequent deterrent value, coupled with a high standard of obedience, Alsatians are to be preferred to other breeds.

167. Standard of efficiency.—A trained security dog must:

(a) Be obedient to the following words of command:— Heel, sit, down, stay, come, chase and leave.

(b) When on patrol quarter the ground in front of its handler, and on locating anyone, bark.

(c) When given the order "Chase", delay a running man. This may be done by charging between his legs or, by using its weight, knock him down or by barking in front of him.

168. Training.—Stage I.—The baiter, without any protective clothing, goes into hiding — preferably a building. With its trainer in close support the dog, working loose, is encouraged to search the building and locate him. Having been located the baiter remains perfectly st'll. Any tendency on the part of the dog to bark is encouraged by the trainer. To avoid being kicked, or otherwise injured, the dog should not be permitted to approach too close to the baiter. This may be prevented by the judicious use of a four legged chair. Holding the back the baiter presents the legs to the dog, at the same time being careful to refrain from any aggressive movements which might antagonise the dog. The chair is simply a means of keeping the dog at a safe distance.
Fig 22.—Loose attack by guard dog wearing reinforced box muzzle
Stage 2.—The dog is now, on the command "Chase" encouraged to follow the fleeing baiter. Following as close as possible the trainer gives the command "Leave" when the dog is some two yards from the baiter. During this stage the dog is conditioned, by being allowed a free romp and roll with the baiter, to treat the proceedings as a game.

Stage 3.—The dog is now allowed to catch up with the retreating baiter. Having done so the baiter falls to the ground and enters into a playful romp with the dog. On the command "Leave" the game must cease immediately.

Important points

(a) The dog must be completely obedient to the command "Leave".

(b) Under no circumstances will the dog be allowed to mouth the baiter; a habit which, if not checked, might lead to biting. In certain dogs the careful use of the strap muzzle has proved successful in curbing this tendency.

SECTION 34.—CASUALTY FINDING OR RED CROSS DOG TRAINING

169. Type of dog.—Temperament:— The potential casualty finding dog must be staunch, active, willing, intelligent, under aggressive and have a good nose.

Size.—Medium.

Breeds.—Collies and Labradors are most commonly used but under aggressive Alsatians have been successfully trained, also pointers and English setters.

170. Training equipment.—Lead, collar, breast harness and a 20-foot pilot rope.

171. Standard of efficiency.—A trained dog must:

(a) Be obedient to the following words of command:— Heel, sit, down, stay, come and seek.

(b) Range a given area, and on detecting a casualty, return to its handler and sit, and thereafter lead its handler to the casualty.
172. Training.—In the initial stages of the training two men are employed. One who is the trainer and a second man, also known to the dog, who plays the role of the casualty.

Stage 1.—The dog is taken on a lead to the training ground, which should be open country. Having arrived at the selected area, the trainer removes the collar and fits the breast harness and rope lead. The casualty, in full view of, and observed by the dog moves to a distance of 10 to 20 yards away and lies down. The trainer, with the command "Seek", encourages the dog to follow him. If the dog appears at all uncertain of what is required, the casualty calls it to him. On reaching him he praises it and rewards it with a piece of meat, while the trainer remains at the full extent of the lead. The dog is now recalled by the trainer, and if slow to respond, the latter, with a series of gentle jerks on the lead persuades it to return to him. Having returned, the trainer orders it to sit in front of him and then praises it. The trainer now shortens the lead and returns to the casualty where the dog is praised by both men. As the lesson is repeated the casualty should not always go out in the same direction but should vary his "hide" to either flank.

Stage 2.—The distances from the starting point to where the casualty hides are now increased up to 50 yards. The trainer no longer accompanies the dog on its initial search, but instead, releases it and encourages it to locate the casualty by itself (Fig 23). The lead is only attached to lead the trainer back to the casualty. The reward given by the casualty is gradually eliminated and when located by the dog he remains perfectly still.

Stage 3.—The dog is now not allowed to see the casualty go into hiding, but having been given the command "Seek" is encouraged to use its nose and locate him (Fig 24). The trainer remains at the starting point, and if the dog, after finding the casualty, is slow to return, he calls it to him. He puts on the lead and praises it when it has led him back to the casualty.

Stage 4.—A second casualty lies out on the opposite flank and about 50 yards from the first thus teaching the dog to quarter.

Stage 5.—Further casualties are introduced and hidden on both flanks at varying intervals and the trainer moves forward as the dog quarters in front of him. After each successful find the trainer returns to his axis of advance before releasing the dog.

Stage 6.—Finally more difficult country is introduced and fox holes and trenches are utilised for casualty locations. The dog is also accustomed to work at night and under battle conditions.
Important points

(a) The harness is a symbol of work and must only be used when the dog is working.

(b) If the dog returns to the trainer without having located a casualty, it must not be allowed to sit, but ordered to continue its search.

(c) Never let the dog’s interest wane. Constant fruitless searches will cause it to lose interest.

(d) After the initial stage casualties should get to their positions using as little as possible of the area over which the dog is expected to quarter, thereby avoiding the possibility of leaving a ground scent to assist the dog.

173. Length of training.—Approximately 16 weeks.

SECTION 35.—INFANTRY PATROL DOG TRAINING

174. Type of dog.—Temperament:—Selected dogs must be intelligent, bold and possess highly developed senses of smell and hearing. Excitable dogs or barkers must not be chosen.

Size.—Medium to large dogs (20 to 26 inches high) are most suitable.

Breeds.—The Alsatian has proved most successful but Collies, Labradors and Great Danes have also been used.

175. Training equipment.—Lead, collar, pilot rope, approximately 18 feet long with a looped end, strap muzzle, and, for difficult dogs to heel, a choke chain

176. Standard of efficiency.—The trained patrol dog must:—

(a) Be obedient to the commands:—Heel, sit, down, stay, come, seek and leave.

(b) Give silent indication by pointing of the presence of an individual or group in a patrolled area. The points are directly related to the prevailing weather conditions, and the type of ground over which the patrol is made. Under the most favourable circumstances points of up to 400 or 500 yards are possible.
Fig 23.—Casualty detection dog. Encouraging the dog to search the area

Fig 24.—Casualty detection dog locating casualty
177. Training.—During the early stages two trainers are used, the handler and a man well known to the dog who plays the role of the enemy.

The dog is taken to the training ground which should be open country, where the enemy is hidden preferably in long grass. It is ordered to sit, the collar removed and the pilot rope put on. Having been given the command “Heel” and “Seek” it is led at patrol speed down wind of and at right angles to the enemy, passing at a distance of not more than 10 yards from him. The pilot rope should be held loosely coiled in the right hand. When the dog indicates that it has scented the enemy, it is praised and encouraged to advance towards him. The indication may be given by one or a combination of the following signs:

(a) Raising of the head and pricking of the ears.
(b) Tensing of the body which may be accompanied by tail wagging.
(c) A keenness to investigate.

The enemy reveals himself and runs 15 to 20 yards away, the dog being encouraged to follow, and is praised when it reaches him. If, after several attempts, the dog fails to scent the enemy, the latter, before going into hiding, teases it with meat which he then takes with him. The use of meat is discontinued after two or three successful pick ups.

The distances are gradually increased until the dog is giving positive indication up to 50 yards. It is not now allowed to run in, but is gradually pulled up at the full extremity of the pilot rope. Great care must be taken with this checking as, if done too violently the dog will be pulled off the point and will, in all probability, return to its handler. If it appears restive on the point, the command “Stay” is given in a quiet firm voice.

Distances are again increased and when the dog is capable of picking up its own trainer at 200 yards in open country, a stranger is introduced as the enemy. The working distance is shortened to 25 yards and then gradually increased. Concurrently with this, the dog is encouraged to point on sounds made by men concealed both up and down wind.

When completely proficient in open country the dog is worked in wooded and broken country and under all types of weather conditions. As the training advances, it should be subjected to battle simulation and, during night training, taught to go down with its trainer immediately a very light is fired. This is quickly accomplished if the trainer, when he drops, pulls down on the rope and gives the command “Down” in a quiet voice. After a few repetitions the dog will automatically drop with its handler without being given any command.
Important points

178. It is essential that the dog is taught to walk to heel without straining on the lead. It is an advantage if, when on patrol it is allowed to walk slightly forward of the normal heel position.

179. A patrol dog must always carry its head high. Any attempt on its part to try and pick up ground scent must be checked with the command "Leave".

180. Any tendency to bark must be discouraged, and if necessary a strap muzzle fitted. It is recommended that where several dogs are taken to the training ground together, they should be tied up out of sight of each other until it is their turn for instruction.

181. The trainer must know the peculiarities of each dog for whose training he is responsible eg, some dogs sit to hold the point.

182. It is only with experience that a trainer can assess the approximate distance of a point. This varies considerably with the weather conditions and type of country.

183. Length of training.—12 weeks.

184. Loose working patrol dog.—In closed country such as jungle the working of a patrol dog on a lead becomes, for a variety of reasons, impracticable. One major defect in this method of employment is the drastically reduced distance at which a dog is often able to detect and so point on hidden personnel, sometimes so reduced that it is valueless. To overcome this and other difficulties the dog, working loose, is trained to range up to a maximum distance of 25-30 yards in front and in sight of its handler, and to return to him immediately he drops to his knee.

Having been fully trained on a line the dog is taken to a straight track. Ideally this should be bordered on each side by thick vegetation. The handler removes the lead and with the command "Seek", coupled with a forward arm movement, encourages the dog to go forward. At the same time he begins to advance at patrol pace. Should the dog range too far in front the handler halts, and remains halted, until the dog starts to return to him. If it fails to do so and continues to advance it must be checked verbally. Having returned to within its forward limit the handler again advances and encourages the dog to do the same. Once the dog has learnt not to range too far ahead, the handler having halted drops to one knee and calls it to him. On reaching him he orders it to sit at his left side. With repetition the dog will without command return to his handler's left side immediately the latter drops to his knee.
Ambush parties are now introduced forward along the track. As they are located and indicated by the dog the handler gives the command "Stay" to prevent any tendency to run in. When he has satisfied himself that a point has been made he drops to his knee to bring the dog to his side.

Finally all words of command are eliminated and the dog is simply controlled by the various movements of the handler — arm signal, halting and dropping to one knee. More difficult country is introduced with winding tracks to condition the dog to vary the distance it ranges in front, so that it always remains in sight of its handler.

SECTION 36.—MESSENGER OR LIAISON DOG TRAINING

185. Type of dog.—Temperament:—Messenger dogs must be active, intelligent, possess plenty of stamina and have a well developed sense of smell. They must be capable of working for two masters and have the strength, endurance and initiative to negotiate all types of terrain alone.

Size.—Medium. Small dogs are physically incapable of surmounting many of the obstacles present on the battle field. Again, although the primary function of a messenger dog is to carry messages, it might, on occasion, be necessary to use it for pack purposes. Employed as such a small dog would be unable to carry a worthwhile load. Large dogs on the other hand are usually too slow and in open country present a comparatively easy target.

Breeds.—Collies and Alsatians and, to a lesser degree, Labradors have the traits necesary for this type of training.

186. Training equipment.—Lead, collar, special message or liaison collar with a pouch attached, strap muzzle, aniseed (diluted with castor oil 1 : 100), web pack harness.

187. Standard of efficiency.—The trained messenger dog must:

(a) Be obedient to commands:—heel, sit, down, stay and come.
(b) By ground memory, be capable of finding its own way between two fixed points one mile apart by day or night, over any type of country, and evade anyone who might attempt to impede its progress.
(c) Be capable of following an aniseed trail.
(d) Be completely inured to the sounds and distraction of battle.
(e) Be capable of carrying a balanced pack of up to $\frac{1}{2}$ his body weight over any type of terrain.
Training.—Before any training on actual messenger work is begun, the two trainers responsible for the dog’s training must gain its complete confidence. This they do by sharing the responsibility for its feeding, grooming and exercise. A fortnight should suffice for this pre-training conditioning.

**Stage 1.**—Both trainers, who hereafter will be referred to as A and B, take the dog to the training ground where it is tethered to a tree or bush. After a short interval A, with the dog on a lead, walks away to a distance of about 25 yards and again tethers it. Removing the lead and collar, A puts on the liaison collar (Fig 39) and with the command “Get on”, releases the dog towards B. Simultaneously B calls it to him and when it arrives he praises it, removes the liaison collar and puts on its normal collar and lead. After a further interval of a few minutes B repeats the performance of removing the collar and lead, and putting on the liaison collar, releases the dog with the command “Get on” towards A, who praises it on its arrival. This exercise is repeated, each time on fresh ground until the dog is running freely between the two trainers.

In the early stages, the dog, in all probability will be slow in making its way between the trainers, but it should increase its speed with practice. If it fails to do so a trained dog should be introduced and run over the course immediately before releasing the green dog. The latter will quickly emulate the trained dog, and increase its own pace.

**Stage 2.**—The distance between A and B is increased, until they are 200 yards apart, but still in full view of each other.

**Stage 3.**—The dog is now taught to rely solely on ground memory when running between A and B. A, after leaving the start point, walks to a place of concealment not more than 30 yards distant, and then releasing the dog. As it becomes proficient in successfully covering short distances, the length of each run is increased, and progressively made more difficult by the introduction of turns. Concurrently with this, the time interval too, between A arriving at his destination and releasing the dog, is increased, until it is able to traverse a mile of country after a time lapse of 2 hours. It is important that each run be done over new ground, and that the rate of progress of training be regulated to ensure, as far as possible, that each run is successful. After an unsuccessful run, the dog should be given an easier one which it is capable of completing successfully. If the tempo of the training is to be maintained, it is imperative that the dog must not be allowed to become disheartened. Occasionally, during the early part of this stage, A, after releasing the dog, should follow it on its run and, if it is side tracked by extraneous interests encourage it on its way by giving the command “Get on”.

**Stage 4.**—The dog is now introduced to an aniseed drag. Aniseed being volatile and an attractant is usually followed willingly with very little training. A, after releasing the dog lays a trail to a new position
by dragging a weighted cloth, tied to the end of a long piece of strong string and soaked in a dilution of aniseed and castor oil (1:100). The dog on its return journey arrives at A’s halting place, and, picking up the aniseed drag, tracks him to his new position. To avoid gross contamination of the handler, or any one else, the impregnated cloth and string should be kept where practicable in a polythene bag, or any airtight container, when not being used.

Finally when the dog is working well between the two trainers, both by day and night, battle simulation is introduced, and the runs are planned so that the dog is forced to pass through populated areas, cross roads, jump or scramble over obstacles and swim streams. To train it to enter water and swim, the trainer chooses a stream shallow enough for him to wade through, but too wide for the dog to jump across. If the dog is reluctant to enter the water, the trainer, by gently pulling on the lead forces it to do so. The trainer then crosses the stream with the dog swimming beside him. After a few repetitions the dog will enter and swim across on its own accord. On no account must it be thrown in.

**Important points**

(a) The liaison collar must only be used when the dog is working and must be removed immediately it has completed a run.

(b) Messenger dogs must work silently, and any tendency to bark checked, and, if necessary a strap muzzle fitted.

(c) Although speed is a great asset, it must be subordinated to reliability, and each lesson must be directed towards the dog successfully completing the run.

*Length of training.*—12 weeks. A further four weeks is required for training to pack duties.

**SECTION 37—PACK DOG TRAINING**

189. *Equipment.*—The pack equipment consists of two light canvas or webbing pouches stitched to a belly band and balanced in front by a breast strap and behind by a breeching strap (Fig 25). It is important to remember that the dog is a loose skinned animal and thus the belly band cannot be drawn up tight like a horse’s girth. The pouches on either side must be exactly balanced in weight.

190. *Training.*—The dog must be accustomed to the pack gradually. The first reaction is usually for the dog to try and shake off or bite the pack.

*First stage.*—The empty pack is put on every time the dog leaves for training or exercise. Once the dog has ceased to worry about the harness the pouches should be padded out with straw so that the dog
learns to allow for the extra width of its load when passing through undergrowth and timber. The dog is taught on the command "Back" to walk behind its handler as in the heel position the pack may knock against the handlers legs.

Second stage.—Within one to two weeks the dog becomes perfectly accustomed to carrying its pack on all occasions. Weights may now be gradually added to the pack, commencing with about 10 pounds, later increases in weight should be made in accordance with the ability of the dog to carry the load without excessive strain.

Final stage.—By graduated exercise with a full pack the dog is built up in condition until it can carry up to \( \frac{1}{4} \) of its body weight all day without undue fatigue. It will be appreciated that a full load can only be carried at a slow pace and that if the dog is required to work at fast paces the load must be lightened accordingly. At times careful attention must be paid to the even balancing of the load.

SECTION 38.—MINE DETECTING DOG TRAINING

191. Introduction.—Although mine dog training is based on the theory that a dog detects the buried mine by smell there is as yet no conclusive proof for the complete acceptance of this theory. Notwithstanding the known efficient and highly developed olfactory organs with which the dog is endowed it is difficult to understand how the scent of an object buried perhaps, in the case of arms, to a depth of some 4 feet, can permeate through the over-lying soil to the surface. A probable explanation to the whole intriguing problem is that the dog becomes aware of the object by a combination of factors including the scent given off by the object, and its contents—in the case of a mine—coupled with that imparted to it by the person burying it, together with a physical change in the soil, at the site of a burial, caused by the disturbance of earth. Whatever the explanation the fact remains that objects such as mines when buried within certain limits, can be detected by a trained dog.

192. Type of dog.—Temperament: The selected dog must be intelligent, willing and exhibit a natural inquisitiveness of ground scent. Nervous or excitable dogs must be rejected.

Size.—In general, medium sized dogs are best suited to this type of training. Not only are they more easily handled and manoeuvred, but they exhibit a greater interest and alertness. A large dog is clumsy and difficult to control within the confined limits a mine dog is required to work. In general the potential mine dog should not exceed 20 inches in height or weigh more than 45 pounds.

Breeds.—Labradors, the smaller specimens of Alsatians and many types of mongrel respond well to training.
Fig 25.—Pack dog

Fig 26.—Mine detection dog. Indicating a buried mine
193. **Training equipment.**—Lead, collar, breast harness, short lead (4 feet long), a variety of filled but unprimed mines—wooden, metal, bakelite, plastic and glass—prodder and marker cones.

194. **Standard of efficiency.**—A trained dog must:

(a) Be obedient to the commands:—Heel, sit, down, stay, leave and seek.

(b) Detect and indicate by sitting (Fig 26), the presence of a buried mine in a swept area. It must sit facing forward before reaching the mine, and must on no account scratch the ground with its fore paws. It must be capable of detecting mines buried in all types of soil up to 3 months after laying.

195. **Training.**—The system of training, which will be described was originally developed by the British during World War II, and is known as the Reward System. The dog is attracted towards a mine by reason of a reward it receives on indicating its presence.

**Stage 1.**—A training field, 8 feet wide and 16 feet long, is constructed on grassland, by laying a variety of filled but unprimed mines, set out in a staggered fashion, with their tops flush with the surface of the ground. In the first instance not more than six mines should be laid. A piece of meat is placed on the top of each mine. The dog is brought to one end of the field, where, after being ordered to sit, the lead and collar are removed and the breast harness and short lead fitted. The trainer, taking the lead in the left hand, and giving the command “Seek” moves slowly on to the field, with the dog in front of him. With the aid of the lead he encourages the dog to sweep the full 8 feet width of the field. As the dog discovers each mine, it is ordered to sit and the trainer, picking up the meat from the mine, rewards the dog with it and, at the same time praises it. The trainer must ensure that the dog sits facing forward between himself and the mine, correcting it immediately if it does not. It is most important that the dog, from the very start of its training, must be made to realize that, on no account, must it place its feet on a mine, and it must always sit facing forward. Any correction necessary must always be done before the dog is rewarded. Any tendency on the dog’s part to turn and face its trainer, or scratch the ground with its paws, must be checked as it occurs.

Constant encouragement must be given to the dog, with the command “Seek”, to keep its nose to the ground.

**Stage 2.**—This is similar to stage 1 but meat is only placed on a percentage of the mines.

On discovery of a mine without meat the dog is rewarded with meat carried by the trainer.
Stage 3.—The mines are now laid so that their tops are just below ground level. As in the previous stage, only a certain number have meat on top. The sods, removed when laying the mines, are replaced loosely over each. The trainer now carries a prodder, and as the dog indicates the presence of a mine, he confirms it by prodding. Again the dog is rewarded by meat, either carried by the trainer, or removed from the top of the mine and the position of the mine is marked by a cone. If the dog “false points”, that is, sits where there is no mine, the trainer must ensure by means of his prodder, that the dog is not pointing at some other foreign object whose presence was unknown. If he is confident that no such object is present the dog is not rewarded, but ordered to continue its search with the command “Seek”.

As the dog becomes more proficient, the length of the field is increased with a proportionate increase in the number of mines.

Stage 4.—All the mines are buried without meat, and the sods are firmly pressed down over each. Each mine, after being discovered by the dog, and confirmed by the trainer with his prodder, is marked by a cone before the dog is rewarded.

Stage 5.—The mines are now buried to normal depths, and the fields laid on varying types of ground, such as plough, sand and heather. When working on plough or sand, the surface should always be raked so that the dog cannot detect any soil disturbance with its eyes. During this stage the dog is worked both by night and day, and subjected gradually to the distractions normally met with on the battle field.

Stage 6.—The dog is now required to work over rubble, along railway tracks and road verges, or any site where under field service conditions mines might be laid.

The foregoing training procedure has been directed towards producing a dog capable of sweeping an 8 feet lane. It may be desirable, on occasions, for a dog to work forward in a straight line, clearing a path through a mine field, sufficiently wide to allow the passage of a patrol walking in single file. The principle of training remains the same, but a longer lead is used and the dog is not encouraged to sweep but to work forward directly in front of its trainer. The trainer has strapped on his back a roll of wide mine tape, which a second man walking closely behind him and in his footsteps unrolls, and pegs along the cleared path.

Important notes

(a) Before any lesson is begun the dog must be given sufficient exercise to allow it to empty its bowels and bladder.

(b) As in other forms of training the breast harness is a symbol of work, and must only be put on immediately before taking the dog on to a mine field, and removed immediately the lesson is completed.
(c) The reward must only be given when the dog has successfully detected a mine, or some other foreign object.

(d) As the whole principle of the training is based on the desire of the dog to earn the reward of meat, a dog must not be worked immediately after a feed, and the feed scale should be kept as small as possible compatible with health.

(e) Progress from one stage to another must only be made after the dog can be relied upon to discover 100 per cent of the mines present.

(f) As the training progresses the dog must always be worked over 2 or 3 yards of known empty ground before being taken on to a "suspected area". It is only by doing this that the trainer can assess whether the dog is working at its maximum efficiency. This is of vital importance if the dog is to be worked over a "live" field.

(g) If the dog appears to be tiring or losing interest the lesson must be stopped immediately. When this happens the trainer must retrace his steps over the cleared portion of the field.

(h) A dog must never be worked over the same field more than three times. This is necessary to ensure that the dog is not using its memory in locating the mines.

Length of training.—16 weeks. If dogs are to be used over live mines it is most advisable that the dog and handler should be trained together from the earliest stages.

196. The American technique of training.—The United States Army during World War II also devised a method of training dogs to detect mines. In contrast to the British system, the dog, instead of being attracted towards the mine, was taught to fear and avoid it. This type of training has been called the Fear or Repulsion System.

The principle of training is based on the dog's instinct of self preservation. It was well known that it was impossible to retrap a coyote which, having been trapped, had escaped. Applied to mine dog training the theory is, that a dog having suffered the shock and surprise of being trapped will try to avoid anything foreign to the terrain for fear of being hurt.

In the initial phase of the training the dog is walked over ground on which have been placed steel traps of sufficient strength to pinch the dog's paw and thus cause shock and surprise, but not strong enough to inflict injury. Having become ensnared it is not released until the surprise has been sufficiently imprinted on its mind. For a particularly insensitive dog which is not disturbed by being trapped, the essential element of surprise is obtained by wiring the traps to a wet cell battery and thus subjecting the dog to an electric shock.
As the training advances the dog will become suspicious and try to avoid all foreign objects and having detected one will "check" by sitting or lying down. The distance the dog checks from the object may vary from one to four paces.

Compared with the British system, the dog does not give such an accurate indication and some difficulty may be encountered in discovering the exact position of the mine.

SECTION 39—ARMS RECOVERY TRAINING

197. As it had been proved that dogs were capable of being trained to discover foreign objects buried beneath the surface of the ground, it was decided to explore the possibilities of dogs being trained to detect caches of arms buried to depths beyond the range of the mechanical mine detector.

The dogs used had already been fully trained as mine dogs. Various quantities of arms were buried in plough to a depth of 2 feet. The arms were either wrapped in a protective covering of canvas or packed in boxes. After thoroughly raking over the surface to ensure there was no visible soil disturbance at the sites of burial, the dog with its handler swept the area. Sufficient positive indications were obtained to confirm that a dog could detect foreign objects buried to a greater depth than was normally required of a mine dog. As the dogs became more experienced the depths of the caches were increased until the dogs could successfully locate them when buried to a depth of 4 to 5 feet. The technique of sweeping the area was the same as practised in mine clearance but it was necessary to arm the trainer with a prodder at least 5 feet long.

As the dogs gained in experience the caches were buried in different types of soil and it was found that they could locate them even when buried to the maximum depth in sand.

An account of the location of illicit arms caches in Palestine in 1946 by these dogs is given in Chapter 1.

SECTION 40—TRACKER DOG TRAINING

198. Scent.—Before embarking on the training of a tracker dog some knowledge of that controversial and very wide subject—scent, is essential.

It is well known that a dog has a most highly developed sense of smell and under certain conditions is able to track a man over a trail many hours cold. What is not fully understood is exactly what the dog scents. Man, in common with animals, gives off a body odour which is specific for each person. The body odour is constantly being exuded and traces of it remain in the path of the individual. Added to this odour,
there is the scent given off by the wearer's clothes, footwear and those released by the bruising and breaking of vegetation, and the crushing of small insects when walked on. One theory put forward is that the dog does not track one scent but a combination of them. These have been likened to the colours of a picture, the whole combination being referred to as the "Track Picture". The picture, like a sunset, is constantly changing with first one colour predominating and then another but the basic theme remains constant. The scent organs of the dog are so highly developed that it is able to follow this ever changing picture as a connoisseur of music can follow the theme of some major work.

199. The dog becomes conscious of the scent through the air it breathes coming in contact with the delicate membranes lining the nose. It follows therefore that the degree of discernment is directly related to the concentration of scent in the air. This concentration varies with the rate of evaporation, air movement and type of country over which the track is made.

200. Factors favouring the successful discrimination of the "Track Picture":—

(a) A mild, dull day with a certain amount of moisture in the air and a resulting slow evaporation.
(b) Long grass or undergrowth in woodlands which retard the movement of air and thus keep the scent-concentration at a high level.
(c) The earth being warmer than the air in contact with it.
(d) Night time when evaporation is less rapid. Although tracking conditions are frequently unfavourable during the day in summer, the night hours and early morning when the air is cool and still are normally favourable.
(e) Ground which is overshadowed by trees or hedgerows.
(f) A running fugitive leaves a higher concentration of scent than one who has calmly walked away because exertion, increasing the flow of sweat, also increases the body odour.
(g) A man who, either through force of circumstances or carelessness is unclean gives off more body odour than one careful of his personal hygiene.
(h) Blood spilled on the trail.*
(i) Time. This is of prime importance. If the dog is introduced to a recent or "hot track" the scent concentration will be such as to enable the dog to follow it with a greater degree of certainty than one that is old and "cold".

* While this is generally true there have been instances where the presence of blood seemed to have the reverse effect. Why, is not understood.
201. Factors which adversely affect the "Track Picture":—

(a) When the sun is hot and evaporation rapid.

(b) A strong wind. A dry east wind especially, rapidly disperses the scent.

(c) Heavy rain which washes the scent away.

(d) Too dry a surface to the ground. Tracks are difficult to follow over sandy or chalky soil.

(e) Land which has been heavily manured or on which are growing strong scented crops.

(f) Newly ploughed land which generally has a strong smell of its own.

(g) When the ground is frozen or has been covered with a layer of snow after the track has been made. In these instances it has been found that a dog is often able to pick up the track after the sun has thawed the ground or melted the snow.

(h) Running water which destroys scent. Dogs have been known to follow a track across shallow, still water.

(i) Crowded streets or places where the track has been crossed by other and fresher scents.

(j) Main roads contaminated with oil, grease, and tar sprays. Their surface too being smooth render little frictional resistance to the surface air.

202. While the foregoing tidy groupings of factors governing the successful and unsuccessful discrimination of the track picture have been proved correct in practice, instances will not infrequently occur when the performance of a dog will be quite contrary to prediction. Why, cannot be explained other than it is one of the imponderables met with in dog training, especially the tracker dog.

203. Type of dog.—The most outstanding characteristic of a tracker dog is its scenting capabilities and only dogs with good noses should be selected. Other traits required are willingness, power of endurance and intelligence. Dogs exhibiting signs of nervousness or softness must be rejected. An aggressive streak exemplified by kennel proudness is advantageous.

Size.—Medium to large dogs are preferable because of their greater staying powers.

Breeds.—Labradors (of the two varieties the black has generally been the more successful), Alsatians and Dobermann Pinschers.
The Blood Hound is the classic tracking dog but unfortunately representatives of this breed are now-a-days extremely difficult to obtain.

Age.—In view of the length of training required to produce a reliable dog some flexibility is permitted in the lower age limit to that acceptable for other types of training. Selection may be made from dogs as young as one year old.

204. Equipment required.—Lead, collar, 20-ft pilot rope and breast harness. Electric torch with belt clip (for night tracking).

205. Standard of efficiency.—A trained tracker dog must:

(a) Be obedient to the commands:—Heel, sit, down, stay, come, seek and leave.

(b) Under favourable conditions be capable of following the track of a man. It is quite impossible to set a time limit on the age of a track but a dog can, providing of course that the prevailing conditions are such as to give it the maximum possible aid, achieve successful tracks on scents up to 7 days cold. This however is very exceptional.

206. Training.—In the early stages of the training only virgin, open grassland or moorland is used. The area must be completely free of any tracks other than the one the dog is being asked to follow.

Stage 1.—The dog is first conditioned to use its nose to locate its own trainer. Having arrived at the training ground the trainer hands the dog over to a second trainer, and, dropping an article of his apparel such as a handkerchief, moves downwind and in a straight line to a distance of 20 yards. The track is laid downwind so that the dog cannot wind his quarry and is thus taught to rely on ground scent. The second trainer removes the collar and lead and puts on the breast harness and rope. The dog having been allowed to smell the handkerchief (Fig 28) is given the command “Seek” and encouraged to follow its own trainer’s track (Fig 29). If necessary the trainer, to indicate his presence gives a shout or whistle. When it has successfully located its trainer the dog is rewarded with a piece of meat. This stage is continued until the dog can complete the track without the initial call from its trainer.

Stage 2.—When the dog is proficient in completing tracks of up to 50 yards the trainer assumes the role of the handler and henceforth a stranger is used as a quarry in all future training.
Stage 3.—The length of the tracks are again increased but are still laid downwind and in a straight line. The quarry drops articles of his personal clothing at intervals of about 40 yards along the track and as the dog locates each it is rewarded. The time interval, between laying the track and the dog being ordered to follow, is increased up to 15 minutes. If the dog during a track exhibits any signs of uncertainty or losing interest, the trainer refreshes its memory by allowing it to smell the original article which the trainer carries with him and at the same time encouraging it with repeated commands to seek.

Stage 4.—The track, which should now be 300-400 yards long, is laid to include one right angle turn. This turn should be marked so that the trainer will know if the dog has overshot it and can check the dog and encourage it to cast. All articles left on the track except the original are gradually eliminated. The type of ground is varied and the interval before putting the dog on the track is increased up to 1 hour.

Stage 5.—Further turns are introduced into the track which is increased by easy stages up to 1 mile. The dog is also required at the end of each track to indicate the quarry who stands with two other men. As the dog becomes more certain in his selection of the quarry further men should be added to the line.

Stage 6.—By now the dog should be sufficiently proficient in following uncomplicated tracks and indicating with certainty its quarry at the end of each. Training is now directed towards conditioning the dog to ignore diversionary cross tracks. In the first instance the track is complicated by only one cross track. The crossing point must be marked so that the trainer can check the dog if it goes wrong. As the dog becomes more experienced further cross tracks are introduced and a track laid as shown in the following plan.

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It is essential that point A be marked for the benefit of the trainer.
Fig 27.—Tracker dog. The dog being allowed to smell a handkerchief belonging to the fugitive

Fig 28.—Tracking
A percentage of the tracks should be laid without the quarry leaving an article of clothing or an object with which he has been in close contact at the start. In these cases the quarry must screw his heels well into the ground before beginning the track. This marking of the start of the track must be later discontinued and the trainer, having been indicated the area from within which the track commenced, assists his dog in locating it by slowly casting it (the dog) over the area.

Stage 7.—All the training so far will have been done under good scenting conditions and over comparatively easy country. The dog must now be given experience of working under more difficult conditions. The track is gradually made stiffer by laying it over various types of country, across streams and roads and near built up areas, so that finally it should simulate one that might in practice be made by a fugitive. The climatic conditions under which the dog is asked to work are also varied.

207. The introduction of artificial aids in the form of meat drags is deprecated and should be avoided. In the initial stages of training their employment will probably give the impression of increasing the tempo of advancement, but experience has proved that a dog so trained will never attain the standard of reliability of one trained entirely on human scent.

208. Again the technique of trying to increase the dog’s incentive by only feeding at the end of a successful track, and withholding food in the event of failure, is opposed. Its introduction must result in irregular feeding times, completely at variance with good kennel management. Again, in the field where the laying of a simple track to enable the dog to earn its meal, after an operational failure, might well be impracticable and the whole system thus collapses unless, of course, the dog is starved—a barbarous punishment.

Important points

(a) During its early training the dog must complete each track successfully. As the work becomes more advanced and difficult, success will not be attained in every track. Nevertheless it is essential that the dog must secure a certain ratio of successes and even in a fully trained dog this must not be less than one in every four otherwise it will become disheartened and its standard of performance will deteriorate. It may be necessary for the trainer to work the dog on a simple track to obtain the required success, and so restore any lost confidence.

(b) The training must be sure and thorough. Any attempt to force the pace will be doomed to failure.

(c) As the training is long and requires infinite patience the selection of personnel for this type of training cannot be too carefully made.
209. Length of Training.—Training times vary considerably with individuals. As much as 2 years may be necessary to train a really reliable dog. However, providing the potential is there it should be possible to produce a fairly competent dog in anything over 9 months.

SECTION 41.—PARACHUTING OF WAR DOGS

210. Occasions will arise when war dogs will be required to parachute from aircraft.

211. Voluntary jumping in modified statichutes.—Experience has shown that provided the selected dogs exhibit the necessary qualities and that the training is continuous and progressive no major difficulties should be encountered. Although the characteristics of fearlessness, energy and willingness are cardinal requisites for all war dogs, they must in dogs selected for parachute dropping, be most pronounced. Size too, is of importance, as the dog must be capable of carrying, without discomfort, the parachute and harness.

212. The initial training is directed towards accustoming the dog to the unfamiliar surroundings of the inside of the fuselage and, by reward of food or titbits on landing, to encourage it to jump willingly behind its handler a height of 6 feet from the exit of the fuselage to the ground.

Once this phase of the training has been successfully accomplished the dog is accustomed to the noise and vibration caused by the engines, and the movement of a taxi-ing plane. In the early stages the dog may salivate profusely, but it soon settles down and becomes quite unaffected by the vibration. Immediately the engines are throttled down and the plane is parked the dog is allowed to jump out of it after its handler to the ground where it is rewarded. In a surprisingly short time the dog learns to associate the throttling down of the engines with its release from the plane and it will show signs of excitement as the tone of the engine changes. This phase of the training is most important as, to lessen the effects of the slip stream on personnel dropping, an aircraft "running-in" to drop parachutists throttles down to near stalling speed.

The parachute and harness are now fitted and the lessons repeated until the dog is jumping freely from a stationary aircraft with the engines turning over to develop a slip stream approximating as near as possible that which would be encountered in an actual drop.

213. The final stage in the training schedule is to give the dog experience of being airborne. Once this has been accomplished it is ready to make its first descent behind its handler.
It has been found that an aircraft with the exit situated in the floor towards the tail of the fuselage is better suited than one with a side exit. In the latter type the dog, jumping forward in a horizontal plane, is liable to be caught in the slip stream and crashed against the side of the exit door.

214. *Dropping in container.*—May be carried out with normal or delayed action static chutes using a well padded container.
   
   This method has the following advantages:
   
   (a) Preliminary training of the dog is not essential.
   
   (b) The dog is under complete control in the aircraft.
   
   (c) Drops can be made from any type of aircraft suitable for supply dropping.

215. *Dropping of untrained dogs without container.*—This is the standard procedure in the French Army. The dog is fitted with a parachute harness very similar in design to the normal human pattern. All webbing straps of the harness lead to a ring above the dog's withers. The parachute (small sized man's pattern) is connected to a ring by a specially designed quick release fitting. The parachute is opened by the normal static line. When the dog lands, the quick release fitting comes into play and the parachute and harness immediately drops off the dog. This quick release works equally well when the dog lands in the water. When jumping the dog wears a special combined muzzle and goggles.

No attempt is made to teach the dog to jump—if the dog does not jump it is pushed. Some dogs will jump voluntarily the first time after their handlers, but never afterwards. The dog accepts being thrown out of an aircraft quite philosophically and there is never any evidence of fear or distress when loaded into aircraft, or on arrival on the ground.

CHAPTER VII

ORGANIZATION OF A WAR DOG TRAINING UNIT

SECTION 42.—GENERAL

216. The organization of a War Dog Training Unit must be directed towards:

(a) The maximum output of fully trained dogs.

(b) The training of handlers and dog trainers.

(c) The maintenance of a high standard of kennel management so that the incidence of disease is kept to the minimum.
217. These aims can best be obtained if the unit is sub-divided into HQ, Training Wing and Holding Wing, each with its clearly defined duties and responsibilities. Whatever the size or capacity of the unit the fundamental structure remains the same, although local conditions may necessitate certain modifications.

**SECTION 43.—LAYOUT OF ESTABLISHMENT**

A model establishment for 200 dogs is as follows:—

218. *Headquarters.*—Under the Commanding Officer the headquarters deals with the policy and general administration.

219. *Holding wing.*—

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Veterinary Officer (Capt or Lieut)  
Sgt RAVC

Hospital block  Isolation block  Remount block
Cpl IC  Cpl IC  Cpl IC
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Notes on organization:

(a) All new intakes to be isolated for 3 weeks before transfer to Remount block, during which time they receive any protective inoculations necessary.

(b) Isolation block to be as far as practicable from the Remount and Hospital block, with no interchange of personnel between these three blocks.

(c) Hospital block to provide treatment for all sick, less infectious disease cases. Kennel space based on 5 per cent dog strength in the Theatre.

(d) User-unit trained dogs evacuated sick will be accompanied by the handler(s) who, if necessary, will be trained to and issued with new dogs from the training wing.

(e) Remount block responsible for:—

(i) Conditioning and care of new intakes.

(ii) Rest and rehabilitation of unit dogs.

(iii) Initial trials for suitability of new dogs.

(iv) Issues to training wing.

(v) Disposal of rejects.
220. Training wing:

- Chief trainer (Capt)
- Assistant trainer (Capt or Lieut)
- S/Sgt trainer

3 dog training squads each
Cpl 1, L/cpl 2, Pte 3

1 handler training team
Sgt 1, Cpl 1, L/cpl 1

Battle simulation and mines
Cpl RE

Notes on organization:

(a) Each training squad is capable of training a different category of war dog, e.g., Guard, Patrol, Mine, Messenger, Casualty finding.

(b) Each training squad capable of handling approximately 25 dogs at one time.

(c) Handler training team "marries-up" the trainer dog to the handler.

(d) Training wing to provide a travelling demonstration team from its resources, for indoctrination and refresher training of handlers.

CHAPTER VIII
TACTICAL EMPLOYMENT OF WAR DOGS

SECTION 44.—GENERAL

221. To obtain the maximum value from the services of trained war dogs, it is essential to have a sound understanding of the tactical situation and conditions best suited to their employment. Dogs, like the rest of the animal kingdom, are subject to outside influences which have a direct bearing on their behaviour. It follows therefore, that the performance of any dog no matter how highly trained is not constant and it cannot be expected to work efficiently under every type of condition. This is often not fully appreciated and instances have occurred where adverse criticism has been levelled against a dog simply because the person responsible for its employment was ignorant of its limitations. The dog must be considered as a specialized ancillary weapon and should only be used after a careful appreciation of the tactical picture, climatic conditions and terrain has been made and found favourable.
SECTION 45.—GUARD DOGS

Indications for use

222. The primary functions of a guard dog are to give greater security to guarded premises and to reduce the number of personnel required as guards. It can be used to advantage in the following types of military installations:

- Ordnance dumps.
- Ministry of Supply dumps.
- Petrol dumps.
- Vehicle parks.
- Railway sidings.
- Airfields.
- Wireless and Radar stations.
- Power houses.

It can also be used as an escort for prisoners of war and on prisoner of war camps.

223. Not only does a trained dog increase the efficiency of a guard in detecting and aiding in the apprehension of a trespasser, but its known presence has often a sufficient adverse morale effect on a criminal to deter him from breaking into guarded premises.

224. Its employment is contra-indicated in places where there is a lot of human activity as the dog, trained as it is to be suspicious of anyone but its own handler, would be constantly alerted. This limitation in its employment applies equally to sites adjacent to busy roads or buildings from which emanate the distracting noise of machinery.

225. Because its senses are more acute during the hours of darkness and as distracting influences during these hours are reduced to a minimum, its use should be directed mainly towards the replacement or supplementing of night guards.

Handling

226. A guard dog must only be handled by a man who has undergone a course of instruction in handler's duties at a War Dog Training Unit. Although the highest standard of performance is attained by only one man handling the dog, it is normal, to allow for sickness, leave etc, for two men to be trained for each dog required. In special circumstances more than two handlers may be allotted but it must be remembered that one of the most important characteristics of a guard dog is suspicion and if it is subjected to frequent changes of handlers this instinct may be numbed.
Employment

227. A guard dog may be used in the following ways:—

(a) As a patrolling sentry.

(b) As a static sentry.

(c) Attached by a running chain to a long wire.

(d) Confined loose in a building or fenced in area.

228. Patrolling sentry.—Employed as such, the dog and handler may be given a fixed beat on a perimeter or an area of an installation to patrol.

It is impossible to give an accurate assessment of the length of perimeter or area which the handler and his dog can patrol effectively as these will vary according to the type of terrain and layout of buildings. They will be considerably greater than a sentry could, without a dog, patrol with the same degree of efficiency. The dog with its superior senses of smell and hearing is able to detect and indicate to its handler the presence of an intruder who otherwise would have escaped detection. Also a sentry even if he detects an intruder may easily fail to arrest him; whereas a guard dog once loosed will hunt its quarry down.

It has been proved that one man and one guard dog can replace four to eight sentries, according to the local circumstances, and that from the time dogs are employed the heavy losses formerly sustained by theft and looting cease abruptly and completely. This is particularly noticeable in theatres (eg, FARELF) where the local inhabitants have a deep seated respect for, and fear of dogs of any sort, and particularly for the type of large aggressive dog employed on guard duties. Given a chance they would much prefer to pit their cunning against a man armed with a rifle than a man with a guard dog.

Note: When guard dogs are employed it is strongly recommended that warning notices, to this effect, be prominently displayed at intervals along the perimeter fence of the installation. Not only will they serve as a warning to authorized personnel to be careful in their approach of sentries, but they may, which is perhaps more important, be instrumental in frightening away would-be trespassers.

Every dog handler who releases his dog against an intruder must be prepared to justify his action. He must be quite certain that at the time he released the dog the offender was on WD ground and had first been properly challenged.

229. Static sentries.—In this role the dog is of inestimable value on isolated outposts in bolstering up the morale of the sentry and forewarning him of anyone's approach. There is little or no chance of the sentry accompanied by a dog being surprised and overpowered.
230. Attached by a running chain to a long wire.—The wire, which can be up to 100 yards long, must be at ground level and securely staked at each end. The chain is so attached that the dog can move unimpeded from one end of the wire to the other. The siting of the wire must be carefully made. It is useless to place it near some busy thoroughfare or within earshot of legitimate activity. An ideal situation would be alongside some isolated store house or particularly vulnerable stretch of lonely perimeter. A kennel should be placed in the middle into which the dog can retire for protection against inclement weather. The handler must be accommodated near the selected site so that the dog can be visited at regular intervals and any alarm raised by it investigated.

231. Confined loose in building or fenced in area. It is inadvisable to practise this procedure in a building containing stores that can be damaged by the dog. Due warning must be given to all concerned that a guard dog is loose in a particular building or area, and the handler must always be available to take action in the event of alarm.

Barkers, that is dogs that will not attack and hold a man but, will, nevertheless, give loud warning of the approach of anyone, may be used in the latter two methods. Although it is always desirable to employ only dogs of the highest calibre it may be that the demand is such as to necessitate the issue of dogs slightly deficient in aggressiveness. It is therefore encumbent on units requiring dogs to state how they propose to employ them.

232. Variations in use.—Specially selected guard dogs may be used as Ambush dogs. Providing the dog is, and this is of paramount importance, a recognised non-barker little specialised training beyond conditioning it to be still for long periods is necessary. In an ambush position its value is twofold (i) by tensing its body and/or pricking its ears it can give silent warning of anyone’s approach; and (ii), once the ambush has been sprung, and when ordered by its handler to do so, it will attack and hold anyone of the enemy who has escaped being knocked out.

Resting

233. Whatever method of employment is adopted, the dog after its tour of duty must be taken away to its kennel and allowed to rest undisturbed. The correct siting of the kennel so that the dog gains this essential rest has been dealt with in Chapter V.
Training periods

234. To maintain the dog at the highest possible standard of efficiency it must be given regular training periods. Baiting, so essential in sustaining its aggressiveness, should if possible, be done at the place where the dog is to be worked especially when it is used on a running chain or shut up loose in a building.

235. Checking.—Guard dog patrols will not satisfactorily solve the security problem of an installation unless some effective means of checking the patrols themselves is introduced to ensure they are conscientiously discharging their allotted tasks. Three methods of checking are commonly use. They are:

(a) Surprise visits by an orderly officer or similar person.
(b) Tell-tale time clocks.
(c) Telephones.

Surprise visits by an orderly officer is probably the least efficient method. Should the handler be sleeping or in any other way being slack his dog will give him sufficient warning of the orderly officer’s approach for him to assume an alert attitude. Again, should the orderly officer fail to identify himself a nervous handler might release his dog. This risk of being attacked might also dissuade the orderly officer from properly checking the patrols.

Tell-tale time clocks may be either fixed at various points throughout the installation and the key carried by the handler or vice versa. Both methods are open to abuse, either by damaging the clocks, or by having duplicate keys made. A handler in possession of duplicate keys and carrying the clock could, should he wish, find a comfortable refuge and remain there until time to be relieved.

The telephone probably offers the most efficient method of supervision. As in the case of tell-tale clocks telephones are installed at selected points. Using them the handler is required to report to the central guard room or control point at set times from specified telephones. In addition to the easier checking of patrols telephones have the added advantage, that should the handler require urgent assistance, say in the event of a fire, this can quickly be obtained. To prevent damage to lines they should be laid underground.

SECTION 46.—SECURITY DOGS

236. General.—Security dogs can be effectively employed on similar installations to those patrolled by guard dogs, especially where legal proceedings, resulting from injury, might otherwise prejudice the use of these aggressively trained dogs. However, since security dogs are not trained to attack it is not advisable to employ them in those areas where the ruthless, determined intruder is known to operate.
237. Handling.—As with all other types of trained dogs security dogs must only be handled by trained personnel. Because of their lack of aggressiveness coupled with the fact that they can be handled by up to three different trained handlers, they are recommended for War Department Constabulary and civilian personnel handlers.

238. Method of employment.—Being completely obedient to the voice control of their handlers security dogs can, and normally are, employed loose. By so doing they can provide a greater coverage than if kept on a lead. In large dispersed installations it is not unusual for the handlers to patrol on bicycles.

239. Suitable commitments.—Security dogs are particularly suited for employment on those installations which include “rights of way”, or “rights of access” at night time by essential duty personnel. They are also of value on depots spread over a wide expanse of country without clearly defined perimeter fencing.

SECTION 47.—CASUALTY-FINDING DOGS

240. General.—When dealing with battle casualties time is the all important factor. This principle was first appreciated by Larry who invented the ambulance during the Napoleonic campaign in Italy. If gangrene is to be prevented, wounds must be treated early. The Royal Army Medical Corps being well aware of this fact deployed surgical units in forward areas during the 1939-1945 War so that there would be as little delay as possible in the initial treatment of casualties. This early treatment can only be given after the casualties have been found, and it therefore follows, that every effort must be directed towards their rapid location.

241. Indications for use.—It is the natural tendency for wounded men to seek some hiding place into which they can crawl and thus protect themselves from further injury. These hiding places may easily be missed by a stretcher party.

The trained casualty-finding dog depending as it does mainly on its sense of smell, presents a valuable aid in the rapid location of the wounded both by day and night.

Its employment is indicated in a war of movement particularly in mountainous and wooded country and under snow conditions but is contra-indicated in static or trench warfare.
242. **Handling.**—Since the demand for services of casualty dogs will vary according to circumstances and the nature of terrain of the battle area, it is recommended that such dogs and their handlers be held by Infantry War Dog Platoons, should such units be operating in support of Divisions.

243. **Employment.**—After an action the handler followed by a stretcher party walk slowly across the battlefield with the dog quartering in front of them. Depending on the type of country the dog should be capable of covering a frontage of from 100 to 150 yards. The handler having selected an axis of advance must return to it each time the dog takes him to a casualty. Only by doing this can he be assured that the area has been thoroughly searched. As a means of identification it is customary for these dogs to wear a red cross insignia. Working as they often do out of sight of their handler there is the possibility of them being mistaken for a battle stray and shot.

244. **Search dogs.**—In a similar manner that mine dogs can be adapted to locate buried caches of arms so can the casualty-finding dog be adapted to the task of locating hidden fugitives. The only variation from its classic role of sweeping the battle field in search of casualties, is that it is required to search buildings and other places were concealed hides might give undetected refuge to some hunted person.

   Instead of proceeding along a central axis the handler follows closely behind his dog which during its training is encouraged to scratch or bark (or both) when successful in its search.

   Note:— These dogs can also be adapted and used for the detection of lightly concealed caches of arms, especially where the caches are hidden in loose stone walls or only thinly covered with soil or rubble. Should, however, the presence of deeply buried caches be suspected arms recovery dogs should be available and employed.

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**SECTION 48—INFANTRY PATROL DOGS**

245. **Indications for use.**—The success of a patrol depends on its ability to locate the enemy without itself being detected. The patrol dog, trained to use its highly developed senses of smell and hearing to indicate the presence of an individual or group of people in a patrolled area, renders valuable aid to the patrol in accomplishing this.

   The patrol dog may be worked either by day or night, in any kind of weather and in jungle or open country. It is not disturbed by the noises of battle. Certain limitations however, govern its employment. For example, it may be perplexed by large numbers of people in
a small area and its use is therefore not recommended when opposing forces are in close contact. Again, its employment is contra-indicated if the intensity of the battle is such that the dog becomes bewildered by the magnitude and number of extraneous sounds. It cannot differentiate between enemy and friendly personnel and it is therefore essential that the patrol is well briefed in the dispositions of its own forces so that it will know, when the dog points, whether it is indicating the presence of enemy or not.

246. Employment.—On patrol the handler and his dog lead. They must be in sufficiently close contact with the patrol leader so that he may be made immediately aware of any indication that the dog may give. Although the patrol may have a definite axis of advance it is advisable, so that the dog may be given every opportunity to wind anyone in the vicinity, to allow the handler and dog where the terrain permits to quarter freely in front, provided of course, this in no way endangers the patrol. At the first evidence of the dog’s suspicions being aroused the patrol should halt. If it is certain in its suspicions it will point by advancing rapidly to the full extent of the pilot rope where it is held by the handler. If it appears uncertain the handler will cautiously advance in the direction of the suspected danger until the dog gives a definite point or loses interest. Having satisfied himself as to the exact direction of the point, the handler moves quietly forward to the dog coiling in the pilot rope as he goes. Depending on the type of country and the visibility it may not always be possible to allow the dog out to the full extent of the pilot rope. Many factors govern the distance at which the warning may be given. They include the direction of the wind and its velocity; the volume and concentration of human scent; the type of country and the amount of distracting influences. The trained and experienced handler should be capable of reading his dog and giving some indication to the patrol leader of the distance at which the dog is pointing. On a reconnaissance patrol, the patrol leader will now decide what evasive action he will take or, if a fighting patrol how he will deploy his men. In the latter the handler and his dog should take no further part but only rejoin the patrol when it has completed its task.

The patrol dog may also be used as a means of preventing surprise attack or infiltration past an outpost position. The handler and his dog should be posted sufficiently distant from the post to eliminate the possibility of the dog being distracted by activities, however slight, from within the post, but sufficiently close for the handler to be within easy communication.

From the limited use made of patrol dogs during World War II it was found that rarely, if ever, was a patrol accompanied by a dog fired on first. The morale of personnel taking part in a patrol was raised once the capabilities of the dog were realised.
247. Handling.—Experience has shown that the most effective organization for operating patrol dogs is the War Dog Platoon. The handlers are normally infantrymen.

SECTION 49.—MESSENGER DOGS

247a. The primary function of a messenger dog is to carry messages, but it may, in an emergency, be used to carry loads of up to approximately one third of its body weight. Two trained handlers, both well known to it, are necessary to work the dog.

It can be worked between two fixed points or one fixed point and one moving point. Whatever the nature of the country, it is capable of covering rapidly, distances of up to one mile—this limit may be surpassed by individual dogs—by day or night and in all types of weather.

In these days of modern communications its use is somewhat restricted but, nevertheless, occasions do arise when communications fail, for example, telephone lines may be cut or the interference caused by thick jungle or vegetation render the sub unit wireless intercommunication useless. When this occurs and it is intended to use a runner, a dog should be used instead. It will establish a more rapid link than a runner, its size and speed make it a most difficult target and it may be instrumental in saving human life.

SECTION 50.—MINE DETECTING DOGS

248. Indications for use.—Until some more reliable and quicker method of detecting mines is discovered the presence of mine fields will always cause considerable restriction of movement both in the forward and rear areas of the battle zone.

The mine dog although not offering a complete solution to the problem has certain advantages over the electrically operated mine detector. It is capable of detecting all types of metallic and non-metallic mines and can locate them buried to depths beyond the range of the detector. Again, it can detect mines in ground so scattered with shell splinters and other pieces of metal that the detector cannot be used. However, like the detector it has its limitations.

(a) Weather has a marked effect on its work. Intense heat, heavy rainfall and frost all cause a considerable lowering of its performance.

(b) It is affected by outside influences such as dead bodies, both human and animal, shellfire and the proximity of heavy traffic and marching bodies of men.
(c) It experiences difficulty in working over waterlogged ground or dry sand and through long grass and crops.

(d) Its efficiency is impaired if mines have been laid for longer than three months.

(e) It tends to lose interest and, may even refuse to work, if worked for long periods without finding mines.

249. Employment.—Providing the limitations governing its employment are fully appreciated the mine dog can render valuable assistance in the clearance of mine fields, especially those which contain non-metallic mines.

The normal rate of work of a mine dog is about the same as with the detector but under ideal conditions it will be faster. It may be worked up to 4 hours a day but, to ensure that it does not tire and lose interest it should be rested after each working period of 20 minutes. For the same reason it must be given a complete day’s rest once a week.

Bearing in mind its reaction to outside influences its employment should be confined to areas outside the immediate proximity of the battlefield. Suggested suitable sites are railway tracks and embankments—the detector cannot be used on the former as it reacts to the ore in the ballast and to the rails themselves—road verges, country lanes and tracks, pasture-land and airfields. Utilising its speed of work it can be used in checking and declaring free large areas of ground, tracks etc, but remembering that it may lose interest if worked for long periods without finding mines, it is necessary to lay an occasional practice mine in its path and so enable it to earn its reward and thus maintain interest. It can be employed at night but if very dark the handler may experience some difficulty in seeing when the dog points.

For operational purposes mine dogs and their handlers are formed into dog platoons. These platoons are responsible only for locating mines. On a field the dog must be followed by the usual party of markers, neutralizers and pullers to clear the mines. No drill is at present laid down, but the existing hand clearance drill can be adopted to suit the circumstances. The mine breaching or clearance operation should normally be controlled by an officer to whom the dogs are allotted and not the dog platoon representative. Further information on their employment is contained in Field Engineering and Mine Warfare, Pamphlet No. 6 Part II, 1951 (WO Code No. 8718).

250. Handling.—Mine dogs are normally held and operated by Mine Dog Platoons RE, but, as in the case of every type of war dog, the RAVC is responsible for the training of handlers, the provision and training of the dogs, and the constant veterinary attention required.
SECTION 51.—TRACKER DOGS

251. Indications for use.—This type of dog, trained to follow the track of a human being, can render invaluable assistance in the successful apprehension of a criminal, saboteur or enemy agent. During World War II Germany made extensive use of them in tracking allied agents dropped by parachute in enemy occupied countries. Their usefulness is now fully appreciated by the British Police.

Even if the dog should fail in actually running its quarry to ground, the direction the quarry has taken may be so clearly indicated as to give valuable aid in the investigation.

Earlier in this manual when discussing scent, conditions favourable and unfavourable to successful tracks have been described. It is useless to expect a dog to track with any degree of success through crowded thoroughfares, built-up areas, or for long distances along main roads when the track is cold. Fortunately fugitives to escape capture very often aid the dog in the following ways:

(a) Make their escape at night. This is normally the best time for tracking.

(b) Run, thereby increasing body odour.

(c) Keep to the shelter of the country and avoid main roads.

(d) An enemy agent dropped into a country by parachute would naturally select some lonely spot for his arrival. Provided the place where he landed could be located, the dog would help considerably in indicating his line of escape, and might be instrumental in leading his pursuers to his place of hiding.

(e) Agents crossing frontiers would naturally choose lonely and sparsely populated parts.

252. Employment.—The most important single factor in the successful employment of a tracker dog is time. The dog must be brought to the scene with all speed and not as a last resort. Once it has been decided to use the services of a dog there must be as little interference with the scene as possible. Objects liable to have been in contact with the person to be tracked should not be touched and movement over the area restricted to the minimum.

253. Handling.—As with all war dogs the experience and intelligence of the handler are of the utmost importance. He can by intelligent casting give considerable help to the dog if for any reason it loses the trail. It is also the handler’s responsibility to ensure that the dog is on the forward scent and is not back-tracking. Before putting the dog on the
trail the handler should examine the area for footprints, bent grass, blood stains etc, which may indicate the direction in which the quarry is moving.

On a long trail it is advisable to refresh the dog’s memory when it shows signs of being at fault with an object which has been in contact with the hunted person. The handler should avoid touching this object himself. It is best to carry it in a strong polythene bag.

In order that the handler may “read” his dog when night tracking an electric torch is necessary, this should be capable of being clipped to the waistbelt in order that the handler may have his hands free.

However in those operations where the slightest disclosure of a patrol’s presence might lead to ambush, night follow-ups must be made without any assistance from artificial light.

254. Tracker team.—Originated in Kenya and developed in Malaya the tracker team, comprising human trackers and dogs, has been used with marked success. The human trackers are normally natives possessing an inbred ability to detect and interpret the signs left by man or animal traversing the countryside. However, although it has been customary to tap the natural skill of the native, soldiers, properly instructed and practised, can also become highly skilled and proficient visual trackers. This is especially true in the case of experienced tracker dog handlers.

The tracker team consists usually of the following elements:—

Team commander
Tracker dog and handler
3 visual trackers
Follow up party — usually 5-6 in number. May include a W/T operator.

The team commander need not necessarily be an expert tracker but he must be able to control the team and judge from conditions quite impartially which tracking aid should be employed.

255. Method of working.—Initially the visual trackers are responsible for searching the area and locating the start of the track. The start having been located the commander decides which aid to employ. Should the dog be chosen it is cast on to the track by its handler. With dogs and handler leading they are followed at close intervals by the handler’s escort, a visual tracker and then the team commander. In fairly open country, such as rubber plantations, the remaining two
visual trackers with their escorts position themselves on the right and left flanks and behind the commander. The remainder of the follow-up party bring up the rear.

Should the dog lose the track the advance is immediately halted and the box search instituted. This involves a search of the immediate area in front rear and to the sides of the patrol by the visual trackers accompanied by their escorts. The leading tracker goes forward while the remaining two fan out to the left and right of the axis of advance. The area searched is roughly a square measuring some 20 yards a side. Should the area be proved barren of visual signs a similar area is searched to the rear. As each area is reported negative the search spreads out until the track is either located or the follow-up abandoned. When the search is taking place the follow-up party remains stationary on its line of advance.

To achieve success the commander must be completely unbiased in his preference for either of his tracking aids. His selection must be made after weighing up the merits of each in relation to the prevailing conditions. Visual trackers can tell him the approximate age of the track; the numbers involved; their rate of progress and whether carrying loads—all information of the greatest importance. They are also able to follow older tracks and those which cross country only sparsely covered with vegetation. They are however slower than dogs.

Dogs under favourable conditions are quicker than visual trackers. They also give an unmistakable indication when nearing the end of a track, thus eliminating the possibility of ambush. Swamp is not the obstacle to dogs it was once thought to be. Reliable animals, providing there is sufficient vegetation above water to hold the scent, negotiate it with certainty even when required to swim.

An important point to note when employing a dog is the fact that should the prevailing wind blow across the track the dog will, in all probability, track to one or other side of that made by the fugitive. According to the force of the wind and the density of the adjacent vegetation the apparent error might be as much as one to two yards. This fact must be borne in mind by the team commander, otherwise he might erroneously conclude the dog is at fault.

SECTION 52.—OPERATIONAL DOG SECTION

256. During the anti-terrorist operations in Kenya and especially in Malaya it was customary to group operational dogs into sections. By so doing continuation training, of vital importance if the efficiency of the dogs is to be maintained at the high level required for operations, could be properly supervised and a pool of experienced dogs and handlers was immediately available when and where required.
Fig 29.—Tracker team moving over fairly open country—tracker dog leading

Fig 30.—Box search—forward
It was found that with British battalions, at least, the Battalion Dog Section was probably the best basic formation. The recommended establishment of the section, and the one proven by experience, includes both unit handlers, carefully selected from trained reliable volunteer soldiers plus an element of RAVC personnel — preferably qualified dog trainers. The strength and composition of the section will naturally depend upon the types of dogs required. But when composed of entirely tracker and patrol dogs six of each type has proved to be an ideal number with nine unit and three RAVC handlers. Of the latter one should be a sergeant who, in addition to being responsible for the handlers' and dogs' efficiency in their specialist duties, also advises the commanding officer on all matters pertaining to the proper care and employment of the dogs.

Where visual trackers also form part of the battalion's tracking resources it is recommended they be closely linked with the dog section. Native trackers are frequently jealous and suspicious of a tracker dog's ability. However, if worked together during training they develop a respect for the dog's prowess and antagonism stemming from ignorance and jealousy is dispelled.

CHAPTER IX
DOG HANDLERS

Section 53.—GENERAL

257. The performance of a war dog is directly dependent upon the relationship existing between the handler and the dog and the skill of the handler. It is therefore essential that the dog must only be handled by a trained man. To this end dog holding units are required to send selected personnel to a War Dog Training Unit RAVC for training in handlers' duties.

The usual procedure is for the handler to be issued with a trained dog at the commencement of the course and, thereafter, he learns to master it through certain lessons in obedience and is taught its capabilities and the correct methods of management.

An alternative method is for the handler and a "green" dog to be trained together. The advantage of this form of training is that the dog suffers no change of handler and a very strong bond of mutual understanding is built up between master and dog. It is the method recommended for the training of mine dog handlers. On the other hand it does necessitate the handler being absent from the unit for a much longer period. Again some difficulty might be encountered if for any reason, such as the original handler becoming a casualty, a change of handlers becomes necessary.
The length of training required to train handlers varies according to the type of dog to be handled. Depending on the individual it might be as little as 14 days for a guard dog or 2 months or more for a tracker dog.

SECTION 54.—SELECTION OF PERSONNEL

258. Great care must be taken in the judicious selection of men for training as dog handlers. A trained dog expertly handled will pay untold dividends whereas a badly handled one might easily become a liability. Potential handlers must be chosen from volunteers who have already received a sound basic military training and who possess a natural understanding of and sympathy with dogs. A pressed man is usually temperamentally unsuited to the task of mastering the dog which, above all, requires a high degree of patience. A dog will quickly sense an unsympathetic handler and its standard of performance will rapidly deteriorate. Reliability is another essential characteristic of the potential handler; a man must be capable of performing without strict supervision what he has been taught during his training.

SECTION 55.—UNIT ADMINISTRATION

259. After his return to his unit the handler must be allowed sufficient time for the proper care, management and continued training of his dog. It is only by giving due consideration to these important duties that the efficiency of the dog can be maintained.

Whenever possible the dog must be used to the fullest possible extent on training exercises. In this way both the handler and the dog gain the experience so essential for their successful employment on active service.

SECTION 56.—ADVICE TO HANDLERS

260. As a trained handler you are responsible to your commanding officer for the continued health and working efficiency of your dog. It is on the zeal, enthusiasm and devotion to duty exhibited by you that the performance of your dog depends.

DO's:—

(i) Do praise your dog for a command successfully obeyed or for a job well done.
(ii) Do insist on commands being carried out immediately.
(iii) Do realise that your dog must have an opportunity to relax in off-duty periods.
(iv) Do show consideration for your dog’s welfare and ensure that the kennel management is maintained at the highest possible level.

(v) Do give your dog regular training so that its standard of efficiency is maintained.

DON’T’s:—

(i) Don’t allow anyone to handle or become friendly with your dog. Remember it is not a pet and has a job to do.
(ii) Don’t throw sticks or articles for your dog to retrieve.
(iii) Don’t allow your dog to go rabbiting or chasing game.
(iv) Don’t overdo obedience work or your dog will lose its initiative. The good handler makes his dog work for him through respect and not by imposing rigid discipline.

CHAPTER X
TRANSPORTATION

SECTION 57.—GENERAL

261. War dogs will, at some time or other, be required to travel in all forms of modern transport and the length of the journey may vary from a few hours to several weeks duration. Although, provided those responsible for their welfare have an intelligent understanding of, and pay due attention to their needs, dogs travel very well, certain aspects of transport require special reference.

In addition to the information contained in the following sections fuller instructions will be found in RAVC Training Pamphlet No. 2 (Movements of Animals).

SECTION 58.—FEEDING, WATERING AND EXERCISE

262. The full scale ration need not be fed in transit, indeed it is inadvisable to do so, and it may be safely reduced by one third. Although every opportunity must be taken to give as much exercise as possible, the amount given can never be sufficient to justify full feeding and if the full ration is maintained digestive disorders will result. There must be no such reduction in the water ration especially in hot climates, where a fresh supply must be constantly available.
Section 59.—Equipment

263. Spare leads and collars should be carried on long journeys. Also rugs in very cold weather.

Section 60.—Motor Transport

264. As noted in Section 31 some dogs may, when first transported by MT, exhibit symptoms of sickness. These however quickly disappear once the dogs become accustomed to the motion.

For journeys that extend more than a few hours kennels are not necessary, provided of course they are not required as temporary accommodation at the destination.

In the ordinary military 3-ton truck 12 dogs can be carried without difficulty. The floor of the truck should be covered with straw and each dog tied up short, by means of a rope lead, to the framework of the canopy. To prevent fights all dogs must be muzzled. Once the initial excitement of loading has passed the dogs will settle down quietly to the journey. One attendant must travel with them.

If kennels are considered desirable 9 kennels of the following dimensions—length 3 feet 9 inches, breadth 2 feet 3 inches, height 2 feet 8 inches—can be loaded into a 3-ton truck without wheelboxes, and a sufficient space left for the attendant.

If journeys last more than 4 hours a halt must be made for short exercise to allow the dogs to empty themselves.

To avoid the possibility of the dogs trapping their legs in the gap between the tail board and the back of the vehicle when being loaded or off loaded by jumping the handler should fill the gap with his forearm.

Rail

265. As with motor transport, kennels are not essential provided the dogs are transported in a closed box-wagon fitted with wall-rings for the attachment of the leads. Bedding should be provided. A kennel of similar type as used for motor transport may be usefully employed. Muzzles should be worn.

Section 61.—Sea Transport

266. Individual kennels with runs should be erected in a well ventilated and lighted part of the ship. The importance of good ventilation cannot be too strongly stressed. Permanent kennel structures are not necessary and the portable kennel is quite satisfactory. To prevent movement during storms each kennel must be either screwed to the deck or securely lashed to the structure of the ship.
Fig 31.—Portable land or sea kennel. Length 3ft. 9ins. Breadth 2ft. 3ins. Height 2ft. 8ins. Weight 98lbs.

Fig 32.—Portable air kennel. Length 3ft. 9ins. Breadth 2ft. 3ins. Height 2ft. 8ins. Weight 68lbs.
The main deck, if adequate protection can be given against storms and the tropical sun, offers a suitable site. This deck has the advantage of being easily cleaned and in fine weather the dogs can sit on top of their kennels, and so benefit from the fresh air.

Accommodation must also be allotted for the storage of grooming kit, feeding utensils, etc.

As much exercise as practicable will always be given. This should never be less than twice daily when each dog will be exercised around the deck on its lead.

Strict attention must be paid to the general hygiene; decks should be hosed down twice daily and all used bedding thrown over the side.

On long voyages the standard daily ration may be reduced by one third. When available, stock from the galley will be added to the feeds to soften them. The vegetable component of the ration will always be fed.

An adequate water supply is essential and water bowls that cannot be easily overturned should be provided.

A simple Veterinary First Aid Kit should be available. On a long sea voyage dogs may be expected to suffer from constipation and a few may develop bed sores from lying on the hard deck or skin irritation due to contact with tar or oil. In rough weather dogs may suffer a mild form of sea sickness but soon recover.

One attendant is sufficient for every 8 dogs.

SECTION 62.—AIR TRANSPORT

267. As with motor and rail transport, dogs may be carried loose or kennelled. Kennels must be light and have fittings whereby they can be secured to the fuselage of the plane.

CHAPTER XI
EQUIPMENT

SECTION 63.—GENERAL

268. In the following Sections equipment has been divided into scheduled and non scheduled items. The entitlement of scheduled items, scaled according to the number of dogs held, will be found in Equipment of Dog Cookhouse and Dog Kennels for Units Holding War Dogs, Block Scale No. 03/2 dated May 1957, and can be obtained by normal indent. The non scheduled items listed which may be necessary to meet specific requirements must be produced locally.

1153—4
SECTION 64.—SCHEDULED EQUIPMENT

(a) Brushes dandy dog (D1/3770-99-943-2857).—This brush has a wooden hand piece set with strong fibre bristles. The bristles are not tightly packed and so do not become clogged with dirt during grooming.

(b) Chains choke (D1/DA 5290).—A rustless, linked chain 1 foot 10 inches long; to prevent twisting of the links and consequently galling of the neck, one swivel link is incorporated in the chain. Used to check difficult dogs to heel.

(c) Chains halter (D1/DA 5291).—A 5 feet long, rustless metal, linked chain with a swivel and strong spring-clip collar attachment, used to picket dogs kennelled in temporary kennels and for guard dogs worked on running wires.

(d) Coats Mk 2 Large (D1/DA 5312) or Small (D1/DA 5313).—These are made of waterproof cloth and lined with blanketing. To keep them in position they have two breast straps and a girth.

(e) Collars large (D1/DA 5325) or Medium (D1/DA 5326).

(f) Combs 4in. (D1/DA 5295) or 7in. (D1/DA 5302).—The large size is the one normally used for war dogs but the small size might prove advantageous for grooming the smaller, fine-coated breeds.

(g) Dishes, Serving, Round, Aluminium (KF 17604).—A rustless metal bowl for use both as a feed bowl and a water bowl. Dimensions—diameter 10 inches, depth 4 inches.

(h) Harness (D1/DA 5318).—The harness is made up of a breast plate, shoulder straps and girth strap with a brass buckle and a brass “D”: It is used when working mine, tracker and casualty detection dogs. It may also be issued temporarily to dogs with neck injuries which prohibit the use of the ordinary collar.

(i) Leads rope (D1/DA 5298).—A 5 feet long ½ inch rope lead with a strong, quick release, rustless “G” clip with a swivel collar attachment spliced into one end and a 7 inch hand loop at the other. Both splicings are bound with leather.

(k) Muzzles Type A (D1/DA 5328).—A leather muzzle, adjustable to fit most dogs by means of a series of straps and buckles on the underside.*

(l) Sleeve dog baiting (CH 2872).—A heavily padded sacking covered sleeve with a reinforced outer cuff. An inside thong at the base of the sleeve permits it to be grasped by the baiter thus keeping it in position.

* The replacement of this muzzle is being considered.
Fig 33.—(A) Combs 4-inch. (B) Combs 7-inch. (C) Brushes dandy dog. (D) Dishes serving round

Fig 34.—(A) Collar. (B) Leads rope. (C) Chains halter. (D) Chains choke. (E) Muzzle type A
Fig 35.—Equipment. Breast harness

Fig 36.—Equipment. Dog rug
(m) Suits dog baiting comprising:—

Jackets, with sleeves (CH 2875)
Leggings Prs (CH 2878)
Trousers Prs (CH 2876)

A heavily padded sacking covered suit secured by leather straps and buckles. It is sufficiently pliable to allow the baiter freedom of movement but gives him complete protection from neck to ankle.

(n) Helmets fencing large (KC 2800).—For the protection of the head and face of baiters when training guard dogs. Used in conjunction with the padded suit.

SECTION 65.—NON SCHEDULED EQUIPMENT

269. Kennel equipment

(a) Bowls feeding.—A rustless metal bowl, sufficiently large to hold the feed and broad enough at the base to prevent it being tipped when the dog is feeding. Enamel bowls, while being pleasing to the eye do not stand up to hard usage and quickly chip. Suitable dimensions are—diameter of the base 10 inches, diameter of the top 8½ inches, depth 2½ inches.

(b) Bowls watering.—A similar bowl to the feeding bowl may be used but, to eliminate, as far as possible, the spilling of water during drinking, a deeper bowl with a relatively broader base is recommended.

270. Training equipment

(a) Collar liaison.—A flat leather collar 1 foot 10 inches long with brass buckle; a leather message pouch 7 inches long is stitched centrally on the collar.

(b) Muzzle box.—A strong leather latticed muzzle used for restraint and in the training of guard dogs.

(c) Muzzle strap.—A 39 inches long leather strap and buckle with a fixed keeper 10 inches from the buckle. Used to stop barking during the training of dogs required to work silently.

(d) Rope pilot.—An 18 feet 6 inches rope with neck and hand loops —nylon rope is ideal for this purpose.

(e) Rope tracking.—An 18 feet 6 inches rope (preferably nylon) with hand loop having a strong, quick release, rustless “G” clip (or double spring clip) spliced into the other end.
Fig 37.—Equipment. Baiting sleeve
Fig. 38.—Equipment. Baiting suit complete with protective mask.
Fig 39.—(A) Muzzle box. (B) Collar liaison. (C) Muzzle strap
(f) Hurdles and jumping scales.—These training aids are invaluable for teaching dogs to jump. The jumping scale must be so constructed that the height can be regulated. This can be done if the two uprights of the framework are slotted and thus allow the insertion of sufficient 9 inch wide boards to attain the required height.

CHAPTER XII
PREVENTION AND TREATMENT OF DISEASES AND INJURIES

SECTION 66.—SIGNS OF HEALTH

271. An intelligent understanding of the signs of health is necessary before disease can be recognised. A healthy dog is active, alert, lively, keen to work or play, and does not tire easily. The eye is bright and lustrous, nose cold and moist, the mouth, tongue and teeth are clean, the breath is wholesome, the coat is glossy and the skin is loose. The mucous membranes on the inside of the eyelids and mouth are moist and salmon pink in colour, except in breeds which have naturally pigmented mouths. The normal temperature is 101.4°F, but may vary from 101° to 102°F according to climate and other conditions. While at rest the rate of respiration is between 18 and 30 per minute and the pulse rate between 60 and 100 per minute. A healthy dog has a ready appetite for food, relishes its meals, and consumes them quickly. The bowels are emptied three or four times daily, and the stools, which may vary in colour from dark-greenish black to a light orange brown, are well formed and passed without difficulty. The urine is clear, usually light orange brown in colour, and is passed in small quantities at frequent intervals. The inner surfaces of the ears are clean, and in prick-eared dogs, the ears are carried erect. A healthy dog has a happy appearance generally, but dispositions vary and alteration of disposition is usually one of the first signs of the dog being “off-colour.”

SECTION 67.—HANDLING AND RESTRAINT

272. Prevention of biting.—An ailing or injured dog is apt to bite anyone handling it, either because it is in pain, afraid, or not fully aware of its actions. For this reason care must be taken in handling, and the animal must be restrained to prevent it biting. The dog should be approached and handled calmly, confidently, quietly, firmly and deliberately, but with sympathy and understanding. It is usually preferable to allow the dog to see one approaching and to let it realize that i
is about to be handled. The collar should first be checked to ensure that it is sufficiently tight to prevent the dog slipping it and running away. The dog should then be muzzled, or its mouth should be "taped," while the head is held by an assistant. To "tape" a dog a piece of bandage, or other material, about three feet long and three inches wide, is required. Make an ordinary single loop in the middle of the bandage and slip this loop over the muzzle with the twist uppermost; pull this tight enough to prevent the dog opening its mouth, cross the bandage below the jaws, and then carry the ends below the ears and tie at the back of the neck. If the dog is inclined to snap, the loop may be slipped over the muzzle while holding the bandage so that the hands are too far away to be bitten. If the dog is awkward, a strong handler should seize it by the scruff of the neck, with one hand on each side, and place the dog's body between his legs. The animal can then be firmly held and muzzled or taped.

273. Method of examining a sick dog.—It may be possible to carry out the required attention or examination while the dog is on the ground, but often this can be done better if the dog is placed on a table, where it may sit, or be restrained lying down. A table about three feet wide is most suitable for this purpose. The dog should be lifted by placing one arm around its breast and the other around its quarters. It should be placed on its side on the table and the person controlling it should then stand behind the dog, place one elbow on the table below the dog's lower jaw, and grasp the fore legs at the knees with that hand; the other hand should grasp the hind legs just below the hocks, with the elbow resting on the dog's quarters.

274. Lifting and carrying injured dogs.—The method employed will depend on the nature of the injury. If the injuries are extensive and severe, it may be necessary to improvise some form of stretcher by using a blanket, hurdle, small door etc, on which to place the dog. Ordinarily, an injured animal can be lifted after muzzling, by kneeling behind its shoulders, slipping one hand under its neck and the other hand under the body in front of the hips and raising the animal on the fore-arms. If the dog is not muzzled, one hand should grasp the scruff of the dog's neck instead of being slipped underneath it. A dog may be carried satisfactorily for a short distance by placing one arm around the breast and the other around the quar.ers and raising the dog breast high. To carry a longer distance, the handler should place his head under the dog's chest and so carry the animal on his neck and shoulders while holding its legs in his hands.

275. Catching loose dogs.—A trained dog should come to hand when called. If difficult, it may be tempted by offering food in the shape of a piece of fresh meat or biscuit. Failing this the dog should be driven
quietly into an enclosed space, if available. As a last resort a dog-catcher may be used, the dog-catcher consisting of a rope loop, which can be tightened, at the end of a pole or hollow rod.

276. Stopping dog fights.—Muzzles should always be applied when war dogs are in close contact and there is a risk of fighting. Throwing a bucket of water on the contestants, or waving burning paper near them, will most likely serve to distract their attention and provide an opportunity to separate them. When separated they should be held by the scruff of the neck, muzzled if possible, and one of them removed at once. Dogs should not be struck with sticks when they are fighting as they may become more infuriated and attack the striker.

SECTION 68.—NURSING

277. A sick dog requires roomy accommodation in a dry, well ventilated kennel, which is free from draughts. An even temperature must be maintained and some form of artificial heating may be necessary in very cold weather. Ample clean bedding should be provided, kept clean, and shaken up regularly to ensure comfort. If extra warmth is required the animal may be covered with clean dry straw, except its head, or a rug may be used. Grooming should be restricted to gentle brushing of the coat and removal of any discharge from eyes, nose, and mouth. Diet will depend on the nature of illness, but will usually consist of easily digested foods such as soup, milk, milk and egg, shredded meat in small quantities, boiled fish, etc; an ample supply of fresh clean water will also usually be advisable. Temperatures should be taken and recorded regularly, the action of the bowels should be noted, and the kennel kept clean.

SECTION 69.—ADMINISTRATION OF MEDICINES

278. Do not attempt to open a dog's mouth to give liquid medicine. Grasp the dog's closed jaws with one hand, fingers under the lower jaw, and raise the nose; with the fingers of the other hand pull the corner of the lips on one side of the mouth away from the teeth so as to form a pouch in the cheek. An assistant should then pour some of the medicine into this pouch and repeat when this has been swallowed. A dog which is awkward may be taped before liquid medicine is administered. To administer solid medicines (pills etc,) grasp the upper jaw just behind the canine teeth with the left hand, gently pressing the lips over the teeth, while an assistant holds the dog securely by the scruff of the neck; open the mouth by pressing on the incisors of the lower jaw with the fingers of the right hand, and then push the pill over the back of the tongue while the nose is raised; close the dog's
mouth at once and keep it closed, and the nose raised, until he has swallowed. Powders can be placed on the back of the tongue in a similar manner.

When dogs are difficult, or dangerous, to handle, solid medicines should be concealed in a piece of meat or dissolved in milk or some other liquid and the dog should be tempted to take them voluntarily.

**Section 70.—DRESSING OF WOUNDS**

279. The aim of dressing wounds is to remove dirt and infection which occurred when the wound was sustained, to prevent further contamination and infection, and to assist healing by preventing further injury. Organisms which infect wounds are present everywhere; on the dog's skin, coat, on the ground etc, and are so small that they can only be seen under a microscope. Strict attention to cleanliness is, therefore, the first principle in the dressing of wounds. The dresser should wash his hands thoroughly and arrange the dressings, instruments etc, on a clean dressing tray or other receptacle—an enamelled, or other, plate which has been cleansed in boiling water will serve this purpose quite well. The hair should then be clipped away from about half an inch around the edges of the wound, and the wound cleaned with a suitable antiseptic solution. This can be done effectively by soaking cotton wool in the solution and then squeezing it out onto the wound, or, if the wound is very dirty, by first washing with soap and warm water. Surplus solution having been removed from the wound and surrounding areas, the appropriate wound dressing should then be applied, and, when practicable, the area covered with a protective pad of cotton wool and bandaged. If available, it is advantageous to place a thin layer of clean gauze over the wound before bandaging the cotton wool in position as this facilitates removal of the dressing the next time the wound receives attention.

280. Suitable antiseptic solutions for wounds are acriflavine solution, solution of chloroxylenol (Dettol) and solution of cetrimide (Cetavlon), care is to be taken that the solutions are made up to the correct strength as too strong solutions injure tissues and retard healing. Solutions should preferably be used at blood heat. A teaspoonful of sodium chloride (common salt) dissolved in a pint of boiled water will provide a satisfactory wound dressing in an emergency.

281. Wound dressings may be either dry, wet, or of an oily or creamy nature. Dry dressings, utilising antiseptic gauze, are often sufficient for superficial wounds, but it is normal practice to apply a suitable dressing powder (sulphanilamide powder, boric acid powder) in addition. Liquid dressings (acriflavine cream or emulsion, cetrimide solution or cream ointment of penicillin, ointment of oxytetracycline) are more appropriate
for painful and infected wounds. If the pain is excessive, hot fomentations using antiseptic lotion, are preferable and codeine tablets may be given at a dose of 1-2 tablets for anodyne effect. Aerosols or ointment containing an antiseptic and Gamma benzene hexachloride may be used to prevent fly-strike and maggot infestation.

282. As a general rule wounds should not be dressed too often, and at subsequent dressings the wound should be kept as dry as possible. A puncture wound must be kept open until it has healed from the bottom. Should a painful swelling occur in the vicinity of a wound, the case should be reported at once to the nearest Veterinary Officer.

283. Dogs which sustain wounds of any importance should be taken at once to a Veterinary Officer who will close suitable wounds with sutures and so reduce the time required for healing, and, in painful cases, will perform the initial dressings etc, under a local anaesthetic, as a result of which the dog will be easier to handle at subsequent dressings.

SECTION 71.—STOPPAGE OF BLEEDING

284. Some amount of bleeding occurs from all wounds, but the health of a dog is not likely to be affected unless a comparatively large blood vessel is involved. If an artery is injured blood spurts out and is bright red in colour; from an injured vein the blood flows more slowly and evenly and is a dark red colour. When blood is merely oozing from a wound the bleeding can usually be arrested by bathing with cold water, and bleeding from a vein can usually be controlled by pressure with a pad of cotton wool, which has been previously soaked in cold water and then squeezed out, or by bandaging a similar pad firmly onto the part. Bleeding from an artery is more difficult to control and is best arrested by artery forceps or by ligaturing the artery, which requires skilled knowledge. As an emergency measure pressure should be applied with the thumb or fingers directly upon the spurting vessel, and when the situation permits, a firm pad of cotton wool, or a rolled up handkerchief, which has first been soaked in cold water or antiseptic solution and then thoroughly squeezed, may be bandaged tightly onto the wound. Pressure may also be applied to the artery at some point between the wound and the heart; generally this method is only practicable for wounds in the limbs or tail. In the limbs the large arteries are situated on the inner side close behind the large bones, and in the tail they are in the centre of the under surface; here, indirect pressure may be applied by grasping the limb and pressing on the artery with the thumb or fingers, by bandaging some object such as a split cork onto the artery, or by a tourniquet. If tight bandages are used care must be taken that they are not left on too long or the limb will swell and become gangrenous. A tourniquet should be
loosened after a quarter of an hour. A liberal dressing of sulphanilamide powder firmly applied to a bleeding area will often mechanically control excessive bleeding. There will be some blood seepage through the bandages, but this should not cause alarm. The dressing should not be removed until surgical assistance is available from a Veterinary Officer. If the haemorrhage is occurring from a deep wound, the wound may be plugged with gauze soaked in cold antiseptic solution or with sulphanilamide powder.

Section 72.—Fomentations and Poultices

285. Fomentations are usually practised to relieve pain, or to increase the circulation to a particular part of the body or limbs to assist in overcoming infection. To be effective they should be continued for at least half an hour. Fomentations for dogs are best carried out by taking a handful of cotton wool and immersing it into water as hot as can be comfortably borne by the hand, squeezing out the water, and then holding the hot moist cotton wool over the affected part. As the cotton wool cools the process should be repeated, fresh supplies of hot water being used to maintain the required temperature. It may be possible to soak a foot or the lower part of a limb in a receptacle containing hot water, but it must be remembered that an inflamed or wounded area is more sensitive to heat than is sound skin. Hot compresses are applied by placing hot moist cotton wool, as for fomentations, over the affected part, covering with some impervious material (ie, with oiled skin, polythene sheeting or even grease-proof paper), together with a heat retaining layer of dry cotton wool and held in position by bandages. They must be changed frequently to obtain the best results. Poultices are used for the same purpose as fomentations. The commonest poultice used for dogs is a kaolin poultice, but in emergencies poultices can be prepared from linseed meal. A kaolin poultice is applied by heating the kaolin (in a tin) in a water bath, spreading the heated material on a piece of lint, applying this to the part, covering with a layer of cotton wool, and bandaging in position. Before applying the poultice it should always be tested on the back of one’s hand to ensure it is not applied too hot.

Section 73.—Bandaging

286. Bandages are most frequently used (a) to hold dressings, or splints in position; (b) to exert pressure, as in the control of haemorrhage, or (c) to afford support to a particular part. The commonest form of bandage is the roller bandage, which is made from loosely woven cotton material, and, as used for dogs, varies in width from one to three inches, and in length from three to six yards. Ordinarily, a roller bandage should not be
applied directly to the body or limbs. The part to be bandaged should first be encased evenly in a layer of cotton wool. The bandage should then be applied sufficiently tightly to retain the dressing in position, but care must be taken that it does not interfere with the circulation. To finish off, the end of the bandage is usually cut longitudinally down the centre for about six inches and the ends passed around the part and tied. Again, care should be taken when the ends are secured that they are not tied more tightly than the bandaging is applied. When bandaging limbs it is advisable to include the foot. The simplest way to do so is to first cut off a piece of bandage about eight inches long and then, as the foot is approached, to place this portion lengthwise over the extremity of the limb and bandage over it. It is also advisable when bandaging a foot to place pledgets of cotton wool between the toes, and, if present, beneath the dew claw; otherwise, the skin in these parts is likely to become inflamed. When bandaging a recent wound or injury, it must be remembered that further swelling is likely to occur and the bandage should therefore be applied as loosely as is practicable. A strip of adhesive plaster, or a portion of an adhesive bandage, is sometimes useful to assist in retaining a loosely applied bandage in position, and for this purpose, is applied lengthwise over the cotton bandage. Adhesive plaster is also used to retain light dressings in position on the tips of ears or tails. To protect wounds etc, on the head, neck and body, a many-tailed bandage is used. This is made from a square or oblong piece of linen, or flannel, sufficiently wide to cover the part and long enough to encircle it one and a half times. The ends are cut into parallel strips, about an inch wide, for tying the bandage. When this type of bandage is used for wounds on the lower surface or sides of the neck, chest or abdomen, holes should be cut in the material at suitable places for the fore legs and the bandage should be tied along the top of the neck and back. Conversely, the ends should be tied in front of and behind the fore legs when wounds on the top of the neck or back are being treated. In bandaging fractured limbs, as a first-aid measure, a thick layer of cotton wool should be used to encase the leg and this should be padded with other pieces of cotton wool so as to level up any depressions in the limb and prevent undue pressure by the splint on any bony structures. Two or three turns of the bandage should be made on a sound part of the leg and the splints then applied to the inner and outer sides of the limb and bandaged in position. Temporary splints can best be improvised from pieces of flat wood about three sixteenths of an inch thick and about one inch wide. For hind limbs the splints should be cut with an angle similar to that of the hock. Pieces of thin metal, cardboard or leather may also be used as temporary splints in an emergency. The purpose of bandaging a fractured limb should not be to set the fracture, but to alleviate pain by preventing movement of the broken parts until the animal can receive attention from a Veterinary Officer, who will set the fracture, probably after administering a general anaesthetic, and fix it permanently, by applying plaster of paris bandages or by other means.
SECTION 74.—CONTAGIOUS DISEASES

287. Prevention.—Strange dogs should not be allowed to enter kennel areas or to come into contact with war dogs; similarly, war dogs should, as far as is practicable, be prevented from gaining access to other dogs. Any new dog arriving in a unit should be carefully examined for symptoms of contagious disease, by a Veterinary Officer if possible, before it is permitted to mix with other dogs in the unit.

All cases of sickness among war dogs should be reported to the Veterinary Officer as soon as possible, since some contagious diseases may not cause characteristic symptoms when first observed. Whenever contagious disease is suspected, the affected animal should be isolated until professional advice can be obtained.

288. RABIES.—Is the most important contagious disease of dogs since it is transmissible to human beings and other warm blooded animals, and is invariably fatal. It occurs in all parts of the world except those countries, such as Britain, Cyprus, New Zealand and Australia, where rigid quarantine laws have excluded it, but is most commonly encountered in Eastern countries. The disease is characterised by mental disturbance, nervous excitability, and subsequent paralysis; and is transmitted by bites from injured animals or by infected saliva coming into contact with a wound, no matter how small that wound may be.

289. Symptoms may not appear until as long as six months after a dog has been bitten. The first indication is usually a change in temperament, the dog becoming irritable and gloomy, and inclined to slink away and hide; or sometimes becoming more affectionate, and perhaps restless. It develops a vacant expression and may be noticed snapping at imaginary objects in the air. The bark becomes altered to a hoarse howl and, although refusing normal food, the dog may gnaw and swallow indigestible objects such as wood, stones etc. The disease then passes into either the furious or the dumb form. In the furious form the dog will bite anyone approaching, tries to escape, and, if successful, will travel many miles, and may furiously attack any human beings or animals it encounters. If it does not die from exhaustion, paralysis supervenes, commencing with the hind quarters and later becoming general and causing death. In the dumb form the dog becomes more depressed and melancholic, and paralysis of the lower jaw and throat muscles develops. The lower jaw drops and the mouth remains open, with saliva dribbling from it. It cannot eat, drink or bite, and the paralysis becomes general and fatal. A dog suffering from rabies invariably dies within ten days of first showing symptoms.

In countries where there is a risk of rabies, war dogs are given protective inoculations; but it is advisable that anyone handling dogs of
any kind in these countries should bear in mind the possibility of a case of rabies occurring and always discourage dogs from licking human beings.

290. How to deal with a suspected case of rabies.—The first essential step is to ensure that the dog cannot escape, and that it cannot come into contact with other animals or human beings. Whenever possible it should be secured with two chains (one attached to the collar and one round the dog’s neck), in a kennel, or other room. It should be attended by only one person who must take all precautions against being bitten or coming into contact with any saliva from the animal. Food and water containers should be pushed within reach of the dog with a pole, or some other implement, and the attendant should disinfect his hands after touching anything which has been in contact with the animal. A Veterinary Officer should be informed at once. If a Veterinary Officer is not available, the animal should not be destroyed as it is important that a definite diagnosis should be made. The dog should continue to be kept in isolation, and anything which is removed from its kennel, eg, straw, unconsumed food, etc, should be burnt. If the dog survives for ten days it can be pronounced free from rabies. Anyone who has been bitten by a dog suspected of rabies should report to a Medical Officer without delay. Any dogs which have been bitten by such an animal should be reported to the Veterinary Officer.

291. DISTEMPER.—A common disease of dogs in Great Britain but also occurs in all parts of the world. It is caused by a virus which is too small to be seen under a microscope, is usually seen in young dogs, and is contracted from an infected animal, or by consuming food or water which has been contaminated by discharge from such an animal. Dogs which have recovered from an attack are immune.

Symptoms: The symptoms of uncomplicated distemper are those of a feverish cold. There is a rise in temperature, the dog is languid, not feeding properly and has a watery discharge from the eyes and nose. This discharge soon becomes thick and yellowish. When complications do not arise and the dog receives proper nursing and attention, the temperature returns to normal after two or three days, and the dog recovers in about three weeks. Frequently, however, complications affect the respiratory, digestive, and nervous systems, and the affected animal develops either pneumonia, vomiting and diarrhoea, fits, or other nervous symptoms.

Treatment: Anti-distemper serum is the only specific treatment and this must be administered at the first onset to be effective; otherwise the most important factor is good nursing. The affected animal should be isolated, and aspirin may be given to assist in reducing the initial rise in temperature. The diet should be light and nourishing and the dog kept quiet and its strength conserved as far as possible. Complications should be treated as they arise. Since there are other contagious diseases, in
particular Paradistemper (hard pad) and Contagious Hepatitis, which may cause symptoms very similar to those of distemper, all cases should be reported to the Veterinary Officer without delay.

**Prevention:** Army dogs are immunized against distemper.

### 292. LEPTOSPIROSIS

- **Is** caused by organisms which invade the blood stream and which can only be seen under a microscope. There are two forms of this disease. One form is known as:

  (a) **Contagious jaundice**, or in common parlance—"The Yellows". The brown rat is a natural carrier of the organism causing this disease which dogs contract by becoming contaminated by urine from an infected rat or by consuming contaminated food or water.

  **Symptoms:** Fever, accompanied by dullness, loss of appetite, and vomiting. After about a week the temperature falls to normal, or below, and symptoms of jaundice appear; the mucous membranes and skin becoming quite yellow; the urine deep orange coloured and sometimes blood stained. This form of the disease is usually fatal.

  **Treatment:** Hyper-immune serum and antibiotics are the most effective means of treatment. The services of a Veterinary Officer are required for their administration. Until such services can be obtained suspected cases should be isolated, kept on a light diet which is free from fat, treated with stomachic powders to allay vomiting, and with aspirin to combat high fever.

  **Prevention:** Keep the vicinity of kennels free from rats. Extended immunity is now possible by vaccination using killed strains of the infective organism.

### 293. The other type of Leptospirosis is normally referred to as:

(b) **Canicola fever** (formerly canine typhus).—This form is contracted from another infected dog and the organism can penetrate sound skin or mucous membranes.

**Symptoms:** Vary from mild cases, showing only slight vomiting and diarrhoea, to acute cases in which there is frequent and profuse vomiting, depression, constipation followed by blood stained diarrhoea, suppression of urine, with congestion, and often ulceration, of the tongue and mouth, and a heavy brownish deposit on the teeth. Acute cases may die within a few days.
**Treatment**: Antibiotics give the best results. Until professional assistance can be obtained, cases should be isolated, well nursed, and treated with stomachic powders to counteract vomiting.

**Prevention**: Extended immunity is now possible by vaccination using killed strains of the infective organism.

294. **MANGE**.—Is a contagious skin disease which is caused by mites just too small to be seen by the naked eye. There are two forms of mange affecting the body generally, and one form which affects only the ears.

**Symptoms**: Irritation of the skin, usually intense, and increased in warm surroundings and after exercise, causes continual scratching and rubbing. In one of the forms affecting the body, and commonly called "Red Mange", the skin becomes reddened, later thickened into folds, the hair falls out, the dog loses condition because it cannot rest, and in time the whole of the head, body and legs may become affected. The other form which affects the body (i.e., grey or demodectic mange) usually commences around the eyes, lips, elbows, toes, or hocks. It causes much less irritation but there is loss of hair, the skin becomes thinned, rough, covered with bran-like scales, may show small suppurating points, and sometimes emits a characteristic odour. Ear mange causes scratching of the ear, shaking of the head, a discharge from the ears, and may bring about convulsions.

**Treatment**: The affected animal should be isolated and veterinary advice obtained at once, as kennels will have to be disinfected and, whenever practicable, the dog evacuated to hospital for treatment. One part of finely powdered sulphur in eight parts of a bland oil makes a useful dressing if veterinary assistance is not readily available.

295. **RINGWORM**.—This is a contagious skin disease which is caused by a fungus and characterised by the development of circular lesions.

**Symptoms**: The hair breaks off in round patches varying in size up to that of a five shilling piece, leaving the skin covered with greyish scales.

**Treatment**: Isolate affected animal, disinfect equipment and kennel, and dress lesions, particularly round the edges, with tincture of iodine.

296. **TICK FEVER**.—This disease is not seen in Great Britain but is met with in hot countries such as Asia, Africa, and parts of America. It is caused by micro-organisms which invade, and break down, the red corpuscles of the blood, dogs becoming affected as a result of being bitten by ticks. Imported dogs are more susceptible than locally bred dogs.
**Symptoms**: Attacks of high fever with weakness and thirst, loss of appetite and, later, jaundice and anaemia—similar to malaria in human beings. There is also a chronic form in which fever may be almost absent, but which will develop into the acute form if the dog is subjected to hard work or privation. Both forms lead to wasting and weakness, and advanced cases are likely to develop pneumonia. Microscopical examination of the blood is essential to establish a correct diagnosis.

**Treatment**: by hypodermic or intravenous injections is necessary, and veterinary assistance should therefore be obtained. Good nursing is important.

**Prevention**: Examine the dog all over for ticks each day and remove any which are discovered. War dog kennels in Eastern countries are usually surrounded with a channel which is filled with disinfectant solution to prevent ticks gaining access to the dogs. See Section 24 for further details of tick-control.

**297. Sura**.—Only occurs in the continents of Asia and Africa, where it is fairly common in Burma, Rhodesia and the Sudan. It is caused by a micro-organism which lives in the liquid portion of the blood and is transmitted by biting flies.

**Symptoms**: resemble those of Tick Fever, without the tendency to jaundice, and in addition, swelling of the legs and dependent parts of the body. Paralysis of the hind quarters is also likely to occur as the disease progresses.

**Treatment**: Obtain veterinary assistance, as a correct diagnosis can only be made by microscopical examination of the blood, and treatment by injections is essential. Antrycide is the latest drug to be introduced for the treatment of this disease.

**Prevention**: Keep down all types of flies in the vicinity of kennels. Protective inoculations with antrycide can be given when fly belts have to be crossed or lived in.

**Section 75.—Common Ailments and Injuries**

**298. General**.—All cases of illness or injury should be reported to a Veterinary Officer as soon as practicable, as correct care and treatment will often prevent complications arising and result in quicker recovery.

The following notes are intended as a guide for action where veterinary assistance is not immediately available, and treatments advised are within the scope of Chests Veterinary, War Dogs.
299. ABSCESS.—

Symptoms: Hot painful swellings which later burst and discharge pus.

Treatment: Apply fomentations or poultices until swelling bursts, then treat as an open wound. Abscesses between the toes may be caused by injuries from awns of grasses, small thorns etc, and often require surgical treatment. Feet should always be examined on return from work.

300. BURNS and SCALDS.—Dress with acriflavine emulsion, and when possible protect with gauze, cotton wool, and bandage. If injuries are extensive good nursing is essential, with special attention to provision of warmth, and ample fluids, ie, milk etc, in diet. Acriflavine, or salt solutions, may be used as emergency dressings.

301. CANKER OF THE EARS.

Symptoms: Shaking of the head, scratching the ears, or rubbing them on the ground; accumulation of brownish discharge in the ears.

Treatment: Clean out the ears with dry cotton wool after first pouring in a little liquid paraffin if ears are very sore. Dress with acriflavine emulsion. Obtain veterinary assistance as Ear Mange causes similar symptoms.

Continued violent head shaking may cause thickening and swelling of the ears due to accumulation of blood under the skin from repeated bruising. This condition requires surgical treatment.

Prevention: Ears of all dogs should be cleaned regularly and kept free from dirt.

302. CHOKING.—A foreign body, usually a large bone, may become lodged between the molar teeth, in the throat, or in the gullet.

Symptoms: Pawing at the mouth, dribbling of saliva, attempts at vomition.

Treatment: Endeavour to remove foreign body but take care not to push it further down the throat. Bones lodged between the teeth may have to be divided with bone forceps to facilitate removal. If unable to remove foreign body do not offer any solid food until veterinary assistance can be obtained.

303. CHOREA.—

Symptoms: Frequent twitching of groups of muscles, usually of a hind limb or the head: generally results from a previous attack of distemper.

Treatment: Condition is usually incurable.
304. **CONJUNCTIVITIS**—Inflammation of the mucous membranes lining the inner side of the eyelids.

**Symptoms:** Rubbing of the eyes with the paws, or against other objects; discharge from the eyes, which are kept closed.

**Treatment:** Irrigate with boric acid solution twice daily. Keep dog in a darkened kennel, as light increases the discomfort. Boric acid solution is prepared by dissolving one teaspoonful of boric powder in one pint of boiling water, and allowing to cool.

305. **CONSTIPATION.**

**Treatment:** Administer two tablespoonfuls of liquid paraffin or one tablespoonful of castor oil. Attend to exercise and regulate diet by giving more vegetables and less meat.

306. **CONTUSIONS.**—Severe bruises should be treated with hot fomentations or compresses, and the dog rested until pain has subsided.

307. **COUGHS and COLDS.**—Attend to ventilation and eliminate draughts; keep animal warm, particularly during nights. Feed light diet and only give light exercise until cough has subsided. Take temperature daily and if raised treat as for "fever".

308. **DIARRHOEA.**

**Causes:** Change in feeding, errors of diet eg, too much fat, chills, worms etc.

**Treatment:** Rest, liquid food, keep warm and administer stomachic powders twice or thrice daily. Obtain veterinary advice as diarrhoea may be a symptom of serious disease.

309. **ECZEMA.**

**Symptoms:** In wet eczema there are patches of inflamed skin, usually on the back or near the root of the tail, on which the hair becomes matted together, and later fall out, leaving a red surface, which the dog continually licks. In dry eczema there are scaly patches from which the hair falls out more slowly, and the skin becomes scaly and thickened. In both cases there is considerable irritation.

**Causes:** Inadequate grooming, fleas or lice, errors in feeding and exercise; is sometimes associated with systemic disease, such as inflammation of the kidneys.

**Treatment:** Varies with the cause. Muzzle the dog to prevent it licking, and for wet eczema, apply calamine lotion after clipping away hair surrounding the part. For dry eczema use acriflavine emulsion. Attend to grooming, diet and exercise, and, if indicated, give a dose of castor oil. Obtain veterinary advice to ascertain exact cause and particularly to differentiate from mange.
310. **EXHAUSTION.**—Most commonly encountered as heat exhaustion in hot countries, or when dogs are travelling by sea in hot climates particularly if they are, wrongly, accommodated in 'tween decks or holds.

*Symptoms:* Excessive panting, loss of energy, unwillingness to move and, in extreme cases, collapse. Probably high temperature in first stages.

*Treatment:* Provide free circulation of air in as shady and cool a place as possible. Apply cold swabs to head. Keep at rest and give ample supply of cool drinking water to which common salt has been added (half a teaspoonful to one quart).

*Prevention:* In hot climates give each dog daily one teaspoonful of common salt dissolved in the water which is used for drinking and for preparation of food.

When exhaustion occurs in cold climates it is usually due to excessive work or insufficient food. Treatment consists of rest, warmth, adequate liquid food, and attention to general management.

311. **FEVER.**—A temperature over 102°F is abnormal in dogs at rest, and may be indicative of development of some serious complaint. Any dog with an abnormal temperature should be kept quiet and warm, have drinking water available, and be offered only light diet. Veterinary advice should be obtained without delay, but if not immediately available treatment with aspirin may be given.

312. **FITS.**—May be due to various causes e.g., distemper, irritation from worms or ear mites, errors in feeding, over excitement, as well as hysteria.

*Symptoms:* Vary in intensity from twitching of the facial muscles, with shaking of the head and salivation, to complete loss of consciousness.

*Treatment:* Leave the dog alone until it regains consciousness, then take it quietly to a darkened kennel, and if veterinary advice is not available give a sedative tablet (chlorbutol), and keep at rest on a light diet.

313. **FRACTURES.**

*Symptoms:* Broken bones (complete fractures) are recognised by:—(a) sudden pain and, when a limb is affected, sudden lameness; (b) deformity of the part, with unnatural movement when a leg bone, or the tail is broken; and (c) crepitus *ie*, the broken portions of the bone may be felt, sometimes even heard, grating against each other when the part is handled or manipulated. When the bone is only cracked (incomplete fracture), or there is no displacement, skilled or X-ray examination is required. Sometimes a part of the broken bone projects through the skin. The condition is then referred to as a “compound fracture,” as opposed to the “simple fracture” where no wound occurs.
Treatment: Make the animal as comfortable as possible and endeavour to limit movement of the affected part, using improvised splints when a limb or tail is involved. Do not attempt to set the fracture but transport the dog, on an improvised stretcher if necessary, to comfortable accommodation until professional assistance can be obtained.

314. GASTRITIS.—Inflammation of the lining membrane of the stomach.

Causes: Some irritant in the food, or animal eating irritant matter.

Symptoms: Frequent vomiting, inability to retain food or water, thirst, furred tongue, and foul breath.

Treatment: Keep animal warm, withhold food and water for 24 hours. Give stomachic powder three times a day. If vomiting cannot be controlled give one capsule of chlorbutol. After 24 hours feed small quantities of liquid food only. Persistent vomiting is also a symptom of other serious conditions eg, inflammation of the kidneys, and all cases should be reported to the Veterinary Officer without delay.

315. HYSTERIA.

Causes: Feeding with biscuits or bread made from flour which has been bleached by a certain process (agenised): can also be brought about by excessively loud noises eg, fire-works, bombing, and thunderstorms.

Symptoms: If loose, the dog may suddenly run away in fright as fast as it can go, and may travel several miles before it can be caught. If on the lead, or in a confined space, the animal develops a frightened look and attempts to hide itself, or shakes with fright and may go off into a fit.

Treatment: Do not interfere with a dog which is in a hysterical fit until it has fully regained consciousness, as it is very likely to bite. Give a sedative capsule (chlorbutol) as soon as practicable and if possible, keep in a quiet shaded place. Change biscuit or bread diet, substituting brown bread if available.

316. IMPACT OF ANAL GLAND.—On each side of the anus of the dog there is a small gland which opens by a small duct, or tube, into the bowel just inside the anus.

Symptoms: When the duct becomes blocked, swelling of the gland occurs and causes irritation. The dog may sit on the ground and drag itself along, may attempt to bite or lick the part, and may experience pain, and perhaps cry out, while passing stools.

Treatment: The glands require to be evacuated by squeezing. This can be done by covering the anus with a fairly large piece of cotton wool and then gripping with the thumb and fingers in front of the gland
and exerting pressure. Fomentations should be applied if the area is inflamed and painful, and a dose of castor oil may be administered if indicated.

317. LAMENESS.—Watch dogs for lameness each day as they are taken out of kennels. If a dog goes lame while at work, examine the foot for cuts, thorns, etc, as foot injuries are the most probable cause of sudden lameness.

318. LICE and FLEAS.

Symptoms: Irritation of the skin, scratching and rubbing, lice or fleas may be discovered in the coat.

Treatment: Treat dogs with Lorexane and disinfect kennels and equipment. Repeat dressings at weekly intervals for one month.

319. POISONING.—Attempts may be made to poison war dogs particularly those on guard duty, either with drugs which are rapidly fatal, eg, strychnine, or drugs which will make the dog sleepy. If a dog is reported to have been poisoned it should be induced to vomit without delay. The best way of making a dog vomit is to administer a piece of washing soda about as big as a hazel nut in the same way as administering a pill. Administration of a dessertspoonful of salt or mustard, in a teacupful of warm water will also cause vomiting. Since a normal dog will suffer no ill effects from being made to vomit there should be no hesitation in resorting to this procedure if poisoning is suspected. In instances where considerable time has elapsed after a dog is suspected to have consumed poison it is usually advisable to give a full dose of castor oil or liquid paraffin; to keep the dog at rest, and feed demulcent liquids such as milk, barley water, etc. Oil or liquid paraffin should not be given if there is any likelihood of the poison having contained phosphorus, which is a common constituent of rat poison. Carbolic acid, and any disinfectant preparation containing it, is poisonous to dogs. Such preparations should not be used for washing dogs. The antidote to carbolic acid poisoning is epsom salts, either applied to the skin in solution, or administered in a dose of two teaspoonsful, according to circumstances.

320. PNEUMONIA.

Causes: Undue exposure to cold and wet, or secondary to some other disease, such as distemper.

Symptoms: Difficulty in breathing, raised temperature, quickened pulse, exaggerated movements of the chest; in well developed cases the dog sits with elbows turned out, and the cheeks move with respiration.

Treatment: Warmth, fresh air, good nursing, light diet. Treat with sulphanilamide tablets.
321. **RHEUMATISM.**

*Symptoms:* Muscular stiffness and soreness: often affects neck and back muscles, but limb muscles may be affected and cause lameness.
*Treatment:* House in dry warm kennel. Administer castor oil if indicated. Give aspirin tablets three times daily. Massage affected muscles with liniment. Pain may be so acute that dog resents being handled and administration of a sedative capsule may then be advisable.

322. **SORE PADS.**—Horny pads of the feet may become worn away by excessive work on hard surfaces.
*Treatment:* Rest—use tincture of iodine or methylated spirit as dressing.

323. **SORE QUICKS.**—Base of nails sometimes become inflamed when working over thick grassland or heather etc, particularly in wet weather.
*Treatment:* Clean and dress with acriflavine emulsion. If very painful and swollen apply poultices.

324. **SORE TAILS.**—Dogs with long tails are apt to injure the tips by banging them against walls or getting them caught in doors.
*Treatment:* Pad kennel with straw and sacking to prevent further injury. Dress with acriflavine solution; avoid bandaging as far as possible.

325. **SPRAINS.**—Sites most commonly affected are the knee, muscles of shoulder or quarter, and tendons of fore leg below the knee.
*Treatment:* Rest. Hot fomentations or poultices in early stages. When pain has subsided massage with liniment.

326. **STINGS.**—Extract sting if possible. Dress area with methylated spirit. If dog has been stung in the mouth through snapping at bees or wasps mix sufficient water with one or more stomach powders to make a thin paste and pour on to the spot. In emergency, baking soda, a weak solution of household ammonia, a cut onion, or a “blue” bag, may be applied to stings to relieve pain.

327. **VOMITING.**—A dog can vomit at will and may do so occasionally to relieve an over-filled stomach. If vomiting persists treatment as for gastritis should be adopted.

328. **WORMS.**

*Symptoms:* Lassitude and loss of condition, worms and worm segments may be seen in stools.
Treatment: Depends on the kind of worms involved. For tape-worms administer one tablet of tenoban for every 15 lb body weight of the dog, about three hours after a light meal of milk and biscuits. Infestation with round worms can be kept in check by administration of a purgative pill. It is advisable that worm treatment, and particularly treatment with tetra-chlorethylene for hook worms and round worms, should be carried out under the immediate supervision of a Veterinary Officer. All worms evacuated by dogs should be destroyed by burning.

329. WOUNDS.—Are classified as (a) Incised i.e., clean cut; (b) Lacerated i.e., torn; (c) Contused i.e., bruised and (d) Punctured i.e., depth exceeds the external orifice. The principles of wound treatment consist of cleaning the wound and removing any foreign substance, ensuring rest of the part, prevention of further injury and, in punctured or deep wounds, provision of drainage for discharge. Dressing of wounds is discussed under General Notes. Battle wounds are treated similarly to other wounds, but they usually take a longer time in healing as the tissues suffer greater damage on account of the heat of the missile.

SECTION 76.—HUMANE DESTRUCTION OF DOGS

330. Dogs are usually destroyed by injecting drugs into a vein; but circumstances may arise in which it is necessary to destroy a dog by shooting. For this purpose a revolver is a suitable weapon. It must be remembered that the bullet may pass through the head and ricochet if the dog is standing on a hard surface, and precautions must be taken accordingly. Preferably the dog should be on soft ground and at a lower level than the man—a hole in the ground is a most suitable place. The muzzle of the dog should be held in the left hand, with the revolver in the right. The point of aim is obtained by drawing imaginary lines from the base of each ear to the inner corner of the eye of the opposite side. The intersection so obtained is the absolutely lowest point at which to aim. The muzzle of the revolver is held almost touching the skin and at right angles to the bone structure of the head at the point of aim. The bullet will then traverse almost vertically into the ground.
APPENDIX A

DRILL WITH WAR DOGS

1. The aim of this appendix is to standardize the basic drill movements required of soldiers when handling trained war dogs. Unless otherwise stated all movements by the handler will be as detailed in Drill (All Arms) 1951.

THE LEAD

2. Depending on the circumstances of the lead, when attached to the dog, will be held either as a loose lead or short lead:

   (a) Loose lead.—The hand loop will be held in the right hand. The lead will be shortened, by looping the slack around the palm of the hand over the first finger, to permit the dog to lie at heel without any strain being placed on the collar.

   (b) Short lead.—The lead will be held as for loose lead, but in addition, it will also be grasped with the left hand as close to the clip as possible (back of the hand to the front) so that there is a slight tension on the collar when the dog is standing or sitting at heel. Any forward movement from the heel position is thus prevented.

CLOSENESS OF DOG TO HANDLER

3. The dog will be as close to the handler as possible. The handler must avoid treading on the dog or having it so close that his movements are impeded.

ATTENTION

4. The handler will be in the normal position of attention except that if the dog is on the lead this will be held in the right hand (back of the hand to the front) right elbow close to the side and the forearm across the body parallel to the ground. When the handler is at attention the dog will normally sit at heel.

STAND AT EASE

5. From attention the handler bends his right knee and carries his right foot to the right so that his feet are about 12 inches apart. He then gives the command “Down”. If the dog is off the lead the handler moves his arms to the normal At Ease position.

ATTENTION FROM AT EASE

6. The handler bends his right knee, carries his right foot to the left, and then gives the command “Sit”. If the dog is off the lead he moves his arms to the normal attention position.
TURNS AT THE HALT

7. (a) Right Turn

The handler turns to the right in the normal manner and, as he does so, gives the command "Heel". This is followed by the command "Sit".

(b) About Turn

The handler turns about in the normal manner and, as he does so, gives the command "Heel". The dog moves to the required position and the handler then gives the command "Sit".

(c) Left Turn

The handler turns to the left in the normal manner and, as he does so, gives the command "Heel". The dog moves round behind him to heel. When the dog is on the lead the handler passes the loop behind his back to his left hand. As the dog comes into the heel position the lead is returned to the right hand in the position of attention. The handler then gives the command "Sit" and the left arm is cut away to the side.

QUICK MARCH

8. Giving the command "Heel" the handler simultaneously steps off with the left foot. If the dog is on a loose lead the left arm is swung in the normal manner, the right arm being kept in the position of attention. When the dog is off the lead both arms are swung in the normal manner.

HALT

9. As the handler halts he gives the command "Sit".

TURNS ON THE MARCH

10. The handler gives the command "Heel", turns in the normal manner and the dog moves to the right or left as is necessary to keep at heel.

STAY

11. This command may be given at the halt, when the dog may be standing, sitting or lying down. It may also be given on the march. When the dog is on the lead the handler releases the spare portion from his right hand and, giving the command "Stay", marches forward three paces. At the same time he moves his right hand across his body to the left hip and halts. He then turns left about to face the dog.

When the dog is off the lead the handler commands "Stay", marches forward the required number of paces, halts and turns right about.
RECALL
12. To recall his dog the handler calls its name and follows with the command “Come”. As it reaches him the handler gives the command “Sit” so that it sits close to and squarely facing him.

LEADS OFF AND ON
13. (a) On the command “Leads Off” the handler bends down, grasps the dog’s collar with his left hand, unclips the lead with his right hand, releases the collar and then straightens up. The looped lead is held in his right hand at the side. Alternatively, as the handler straightens his body he passes the lead over his right shoulder and secures the clip to the loop on his left side thus leaving both hands free.

(b) On the command “Leads On” the handler bends down, grasps the collar with his left hand, clips on the lead with his right hand, releases the collar and then straightens up. In the alternative position the lead will first be removed from round the body, using both hands.

SALUTING
14. (a) The salute with the right hand will only be given by trained handlers and by them only when they are handling trained dogs. On all other occasions the dog will be restrained on a short lead, the handler looking straight to his front unless required to give eyes right or left.

(b) On the march
Soldiers not part of a formed body will salute in the following manner:

Take up a short lead
Transfer the lead from the right hand to the left
Cut the right hand to the side
Salute in the normal manner
Transfer the lead from the left hand to the right
Move the right hand to the position of attention
Release the lead from the left hand.

A formed body requiring to pay a compliment to a flank will be given the command “Short Leads” and only the officer, warrant officer or NCO in command will salute. If the men and dogs are at the required standard of training the commands “Eyes Right” or “Left” and “Eyes Front” will also be given.

When paying compliments on the march all movements will be made on successive beats of the left foot.

(c) When addressing an officer
The handler will march smartly towards the officer with the dog at heel on a short lead and halt six paces away. Having halted he
will transfer the lead from the right hand to the left and salute in the normal manner.

After addressing the officer the handler will transfer the lead from the left hand to the right, turn about and march off. As he steps off he will release the lead from the left hand.

INSPECTIONS

15. During an inspection as the person making it approaches within six paces of a handler and dog, the handler will firmly restrain his dog on a short lead. In this instance the left hand will grasp both the collar and the lead.

DISMISS

16. On the command "Dismiss" the handler will turn to the right, pause with the dog sitting at heel and then march off smartly. After three paces he will relax and praise his dog.
DRUGS AND PREPARATIONS IN COMMON USE

Acriflavine tablets Dissolve one tablet in one pint of water to make antiseptic solution for cleansing and dressing wounds.

Acriflavine emulsion Antiseptic dressing for wounds, burns etc: apply with cotton wool.

Anthisan Skin dressing for irritant eczematous conditions; apply thinly.

Aspirin tablets One tablet two or three times daily for feverish conditions or rheumatism.

Boric Acid (a) Dusting powder for wounds and abrasions; apply with cotton wool.

(b) As an eye lotion; dissolve one teaspoonful in a pint of boiling water and allow to cool.

Calamine lotion For skin irritation and eczema. Apply with cotton wool and muzzle dog to prevent licking.

Castor oil As laxative or purgative—give one or two tablespoonsful.

Chlorbutol capsules Sedative for hysteria and relief of pain. One or two capsules as required.

Hexamine For affections of the kidneys and urinary tract. One tablet twice daily.

Liquid Paraffin Laxative. Milder than castor oil and may be repeated. Dose 1-2 tablespoonsful.

Lorexane Purgative pills Dust into coat for treatment of lice and fleas. Give one pill as required.

Stomachic powders For persistent vomiting or diarrhoea. Place on back of tongue or mix with milk; administer two or three times each day.
Sulphadimidine For pneumonia or fever. Give six tablets as first dose tablets and then two tablets every eight hours.

Sulphanilamide Wound dressing. Apply with cotton wool. powder

Tenoban For tape worms. Dose—one tablet per 15 lbs body weight. Feed a light meal of milk and biscuit 3-4 hours before treatment; and give cupful of milk 15 minutes before administering the tablets.

Worm capsules For round worms and hook worms. Exclude fat from (Tetrachlor-ethylene) diet for two days; then give one capsule per 10 lbs body weight followed by half an ounce of Epsom salts.