CHAPTER 2

BASICS OF CAMPING

Introduction

1. Camping, which is basically making use of a tent for protection against the weather and for sleeping, is often done voluntarily, for the personal pleasure of the individual; but sometimes it is necessary because of a job that has to be done away from habitation. Sometimes it is necessary to live in the open without even a tent, for example in survival after baling out from an aircraft over uninhabited country, and the skill acquired in learning how to live comfortably in a tent can form the basis of how to survive without one. Thus, camping skill can be a useful accomplishment as well as being a means of escaping from bricks and mortar and everyday routine.

2. Living in a tent can take place in many different situations. For example you could:

a. Sleep in a tent pitched on the lawn of your house using the normal facilities of your home for food, cleanliness and sanitation.

b. Live in your own individual tent on an organized camping site at which provision for food, cleanliness and sanitation is made by the site owners.

c. Live in large tents as a member of a group running an organized camp at which food, cleanliness and sanitation are all provided for you as a result of planning by the group.

d. Live in your own individual tent at a place of your own choosing where food, cleanliness and sanitation problems are for your own solution. More often than not, in this situation, you will be packing up your gear each morning and moving on to a new place for the next night stop, probably for several days and nights in succession. This is called an expedition. In the Air Training Corps it might often be done in small groups of four or five cadets, each with his own tent, or two to a tent. When two cadets share a tent the work and the load carrying is shared.

All of these situations have their own values and uses but it is the last one — the expedition — that we shall be studying in this chapter.

3. Although there can be no better teacher than actual experience, much can be studied and learnt in the classroom, so that when the time comes to go out and get the experience you will be better prepared for successful camping. Indeed, all expeditions must be carefully planned in advance, because if you arrive on site without an essential item there will be no shop to go to and lack of the item might put you in a dangerous situation as well as making your camp unnecessarily uncomfortable. It is common knowledge that the weather in this country, particularly in the hills and on the moors, can change extremely rapidly. Clouds can form very quickly and blot out visibility; rain and storm can blow up with little warning; and a pleasant, warm sunny day can become cold and miserable in no time at all. And remember it is nearly always cold on high mountains and moors — even in summer. Thus the better your planning, the greater

your enjoyment, comfort and safety on the expedition, whatever the weather. This chapter will introduce you to the subject. More detail will follow in your later training when you come to study the adventure training handbook.

The Tent

4. In the UK the main weather hazard is rain; so you will need a tent that will dependably protect you from it. By keeping you dry it will also help to keep you warm, although the clothes that you wear and the sleeping bag you will use at night are your main protection against cold. Thus, when choosing a tent, your first consideration should be its ability to keep you dry. Although good quality cotton material can be waterproofed, its waterproofing can be lost quite quickly, especially if you rub against the material while it is wet; rain can then come through in a fine spray, making life uncomfortable. Synthetic fibre such as nylon does not leak so easily and it does not matter quite so much if you rub against it while it is wet but it, too, can lose its waterproofing if it becomes hard and cracked. Nylon also encourages condensation and often becomes wet on its inside surface for this reason.

5. The best protection is to have another sheet covering the whole tent to keep the tent itself dry; this is called a flysheet. It will not only give the best possible protection from rain, but will also lengthen the life of your tent. A flysheet covers the whole tent down to ground level with a space between itself and the tent. However, an even better idea is to have a flysheet that extends well past the tent door forming a porch in which you can store your gear, and where you can remove your wet clothing before entering the tent proper, or where you can cook under cover if conditions are such that you have no alternative. The extra expense of an extra large flysheet could be a major problem but a dry porch area could add very much to your comfort and is very well worth the slight extra weight.

6. A groundsheet is also essential to protect you from wet ground and is always advisable because even "dry" ground is damp as soil moisture evaporates from the surface. To save you having to carry a groundsheet separately, it is often built into the tent itself.

7. Depending on your physical size, a spacious tent has one big advantage in making it comparatively easy to change your clothes and to manoeuvre inside the tent. However, you need protection from the wind, too, and this means a tent of small cross-sectional area so that it will remain stable in the wind, and this is opposite to the requirement for headroom. Thus, as in most things in nature, a compromise is necessary to get the best headroom and at the same time the best shape. Shape is therefore important. Wedge shape gives the best stability against the wind and sometimes the best headroom just where you need it.

8. It can be seen that in order to get the maximum enjoyment from your expedition much care is needed in selecting the right type of tent from the very many different sorts and shapes on the market. On an expedition, the small 1-man or 2-man tent is the right type and, since it has to be carried on your back, the lighter it is the better. Before buying, compare the weight of cotton and synthetic fibre tents very carefully because the newer synthetic fibres might well be the lightest, the strongest, and the most waterproof and thus allow a flysheet to be carried as well.

(AL4, Sep 78)

9. Tents need poles to hold them up and guy lines fixed to pegs sunk in the ground to hold them down. Poles can be single vertical ones, or A-shaped. Usually they are made in sections which stow away inside each other or fold for ease of storage and carrying. They need to be of good quality and to have well-engineered joints if they are to be strong and firm when erected. They are usually made from metal-alloy for lightness, but make sure that they are not so light that they are weak and will break. They must have base plates or rubbers to stand on so that they will not sink into the ground. Single, vertical poles usually stand in the doorway and thus restrict entry but they have the great advantage of simplicity and light weight. Sometimes the poles need a ridge pole joining the verticals to help them to stand up firmly (braced by the guy lines) and to hold the flysheet clear, but the best and lightest designs of tents might be able to do without. A-shaped poles can go inside the tent to hold it up or they can go outside so that the tent is hung from them. They give easier access through the door, more room inside, and much better stability against the wind. If they have a ridge pole the flysheet can be erected first so that in wet weather the tent can be erected underneath in the dry.

10. Pegs can be wood (often beech) and can be home-made if necessary, or they can be metal or alloy. Metal or alloy pegs are often supplied by the tent manufacturer and sometimes in different sizes and shapes for the different positions around the tent; but remember that the common meat skewer is often suitable and can be a useful reserve. If extra strength is needed, two meat skewers can be used, one thrust through the eye of

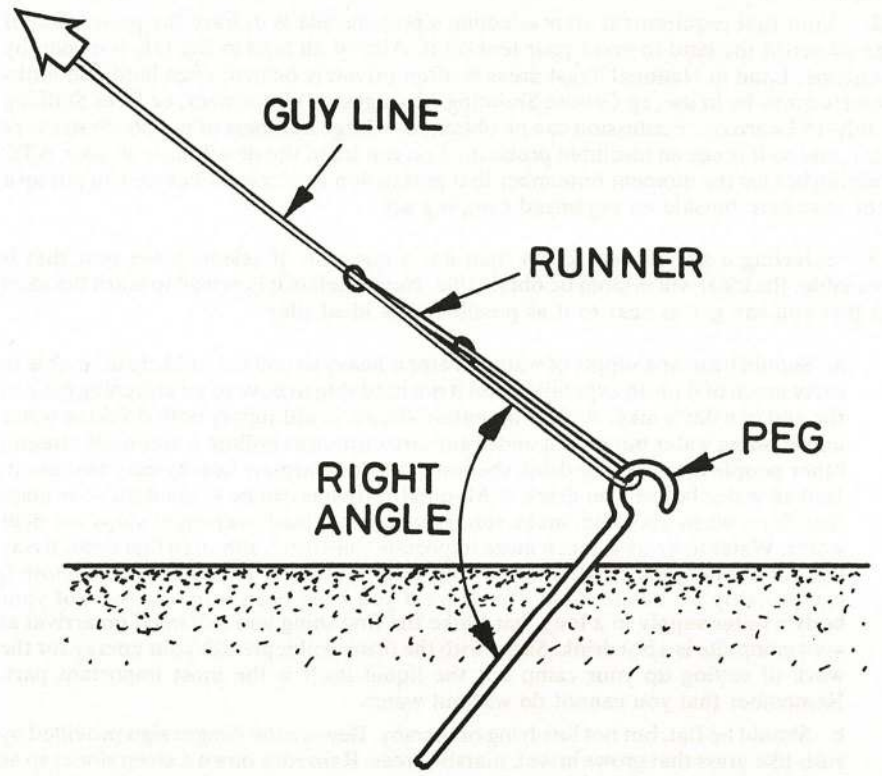


Fig 2 Pegs should be inserted in the ground at an angle which makes a right angle with the guy line.

the other. Pegs should be inserted in the ground at an angle so that the guy rope (or anchor rubbers or anchor lugs) meets the peg at right angles, (Fig 2). A mallet is the best tool to knock the pegs into the ground.

11. Guy ropes may be of almost any material, but nylon ones will not shrink when wet and therefore will not have to be loosened when wet weather arrives; hemp rope shrinks when wet and therefore must be loosened before rain, otherwise it may either tighten too much or even break the rope, either event causing you problems, whether you are in the tent or away at the time. This means that before going to bed at night and before leaving a tent unoccupied you must loosen any non-nylon guy ropes. If the ropes are nylon you will be saved this work and the slight stretch feature of nylon will be another advantage in strong winds as there will not be so much likelihood of the pegs being pulled out. Guy ropes are provided with a runner with which to tighten or loosen them, often a small piece of aluminium with holes that allow it to be slipped up or down the rope and with a notch in which the rope can be slipped to hold it firm when under strain. The groundsheet and the walls of the tent are usually held down by rubber loops over pegs. Rubber has the obvious advantage of holding the tent firmly but with sufficient stretch to absorb shocks.

The Site

12. Your first requirement after selecting a possible site is to have the permission of the owner of the land to erect your tent on it. Almost all land in the UK is owned by someone. Land in National Trust areas is often privately owned; even land that looks deserted may be in use, eg Grouse Shooting 12 August-10 December, or Deer Stalking 1 July-15 February. Permission can be obtained — large numbers of people do so every year, and so it is not an insoluble problem. You can learn the details later in your ATC training but for the moment remember that permission is necessary before you put up a tent anywhere outside an organized camping site.

13. Selecting a site is more often than not a question of selecting the best that is available; the ideal will seldom be obtainable. Nevertheless it is as well to learn the ideal so that you can get as near to it as possible. The ideal site:

a. Should be near a supply of water. Water is heavy so you are unlikely to be able to carry much of it on an expedition and it is a hard slog to have to go searching for it at the end of a day's hike. A clear mountain stream could supply both drinking water and washing water but do not under any circumstances pollute a mountain stream; other people may need to drink the water too and farmers nearby may also use it. Boil all water before you drink it. Mountain streams can be located on your map; therefore, when planning, make sure that your planned over-night stops are near water. Water to drink is much more important than food, although that is not to say that food is not important, because your body must have adequate water before it can properly assimilate food. Therefore if you have been using up most of your body's water supply in a long, hard hike the first thing you will need on arrival at your camp site is a hot drink. Sugar with the drink will replenish your energy for the work of setting up your camp but the liquid itself is the most important part. Remember that you cannot do without water.

b. Should be flat, but not low lying or marshy. Beware the danger sign provided by rush-like grass that grows in wet, marshy areas. Rain runs down a steep slope; so as well as being uncomfortable for sleeping, a steep slope means that you have to dig a trench about 5″ deep above your tent to run the water away to each side.

c. Should have shelter from the prevailing wind and be at the lowest possible altitude. The downwind side of anything is called the lee side. The lee side of a hill is sheltered from the wind and is also the warmest and driest side; therefore you should try first to select a site on the lee side of any hill near your site area. If you do not know the direction of the prevailing wind and there is no wind at the time you wish to set up camp, you can assume in the UK that the prevailing wind is south west; therefore the lee side of anything is its north east side. Occasionally, nearby trees and bushes may indicate the prevailing wind by their growth. Remember, too, that the higher you go the colder it gets and a mountain pass can be very cold even in summer. Therefore, if you have any choice, select a site at the lowest possible altitude. For the greatest comfort, pitch your tent on the lee side of a stone wall, dense thicket or similar shield. But do *not* pitch immediately under trees because the area there can be dripping and wet long after rain has passed; you will not be able to enjoy the sunshine and allow it to dry your tent; and moving or dropping branches can damage your tent.

d. Should have a sub-site where toilet facilities can be provided. The normal functions of the human body will not cease while you are camping and so you must make provision. A suitable site would be:

(1) Downwind and fairly near the tent.

(2) Screened naturally; but rig up a screen if you have to.

(3) On soil where you can dig a short trench and keep the turf and soil for replacement so that you can leave the site as you find it.

See also para 31.

e. Should have a suitable sub-site for cooking. We have already said that cooking is an important requirement. Obviously, the facilities of the site that you need will be governed by the method of cooking you intend to use and the method will be the one that you have pre-planned and practised—*see* paras 32 and 33. Never light a fire or burner in the open unless you are well-practised in looking after it safely. Any cooking method will need a site sheltered from the wind and one well clear from inflammable material, eg dry bracken or grass that an accident could set alight. You may well choose to save the uncertainty of finding cooking shelter by taking a folding metal screen with you. In rain, you may have to use your cooker in the doorway or covered porch of your tent and this will require great care. Keep the cooker away from any tent fabric and find some heavy stones to protect it from careless feet.

Pitching (Erecting) The Tent

14. Having chosen the site, the next thing to do is to pitch your tent. A tent should always be pitched as though you were setting it up to withstand a gale, even though the weather is calm at the time. This means establishing a firm and equal pull on all the guy lines. The guys should all pull equally so that the tent is not distorted or twisted out of shape, but held firm and square against the elements. Do not pull too hard (you could break or separate the guys); pull just nicely taut and make sure that the pegs are firmly in the ground at the right angle. If anchor rubbers are used instead of guy lines to hold down the groundsheet or walls, make sure that their pegs are holding firmly in the ground.

15. It is essential to begin correctly. If you do not, you may not be able to get a perfect set to your tent no matter how you adjust the guys. Figs 3 and 4 are a series of pictures illustrating the stages in pitching two typical types of tent. Whatever your particular type of tent, the basic procedure is as follows:

a. Fasten all doors and lay the tent flat on the ground (with its back to the wind of course), stretching out the sides and ends tightly so that the corners of the walls (or the eaves if the tent has no walls) form exactly the correct shape. The upper parts of the tent can be left loosely on the top of the ground shape for the moment. It is essential to have just exactly the right floor shape for that particular tent.

b. Peg the corners.

c. Next insert and erect the poles. You will, of course, have to undo the door if the poles are internal. Remember to set the poles on their base plates. Internal poles should stand if the base has been pegged correctly and you can do up the door again; but external poles might need to be held by their guy lines while you adjust them to be correctly upright.

d. Suspend or drape over the tent and flysheet.

e. Run out and secure the main fore and aft guys; then the four corner guys (or eight if there are dual corner guys); then the remaining side lines and anchor rubbers if you have not already pegged these when anchoring the floor corners.

f. Finally insert the remaining wall/groundsheet pegs.

Pitching a Tent with Ridge Pole

Fig 3A **This is a 2-man ridge tent with two A-Poles. It weighs 4.5 kilograms (10 lbs) complete and is packed as in this picture.**

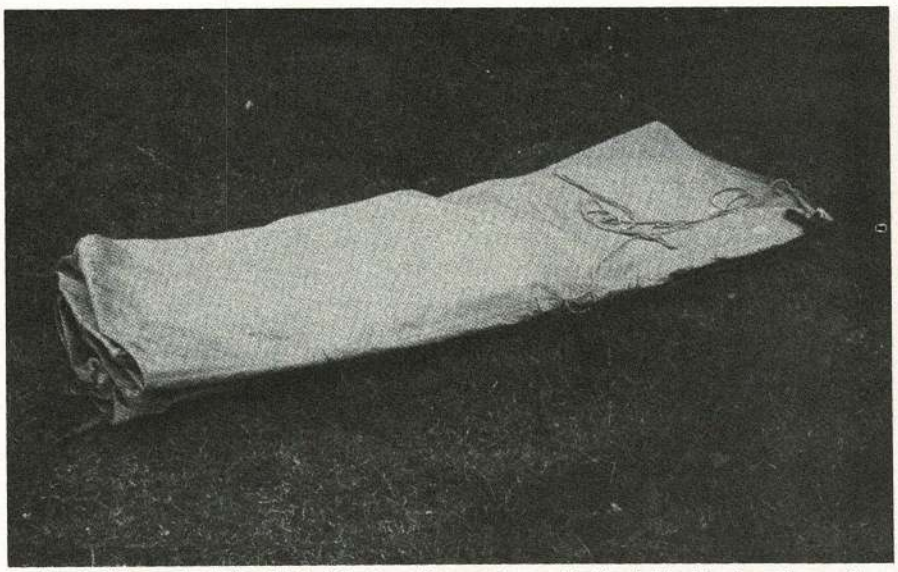


Fig 3B Unpacked, the folded flysheet lies on top, with the folded tent underneath.

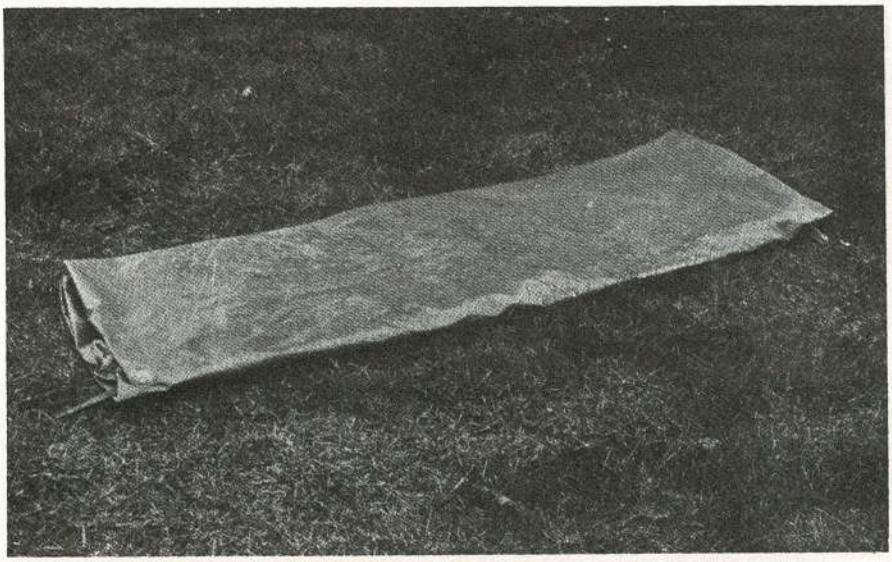


Fig 3C Remove the flysheet and keep it folded until needed.

(AL4, Sep 78)

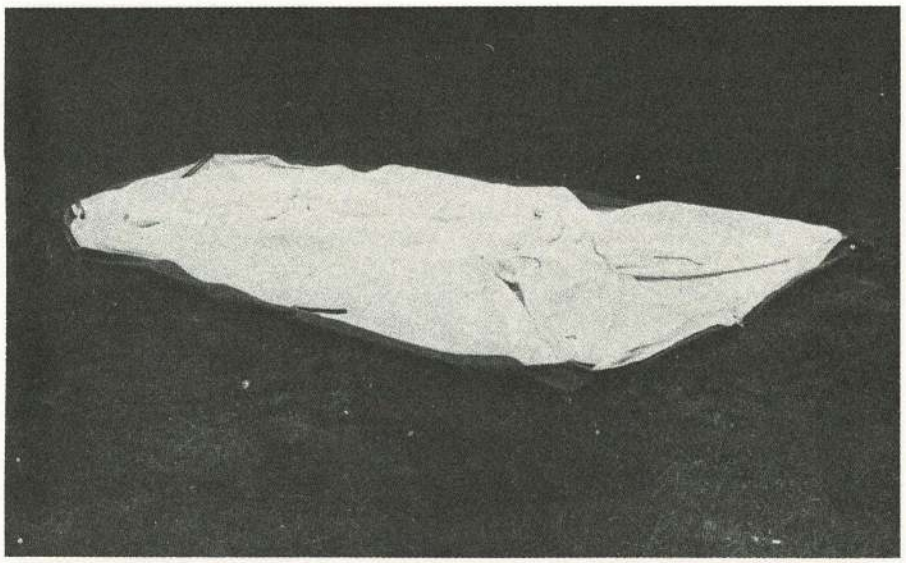


Fig 3D Unfold the tent and lay it out exactly where it is required to be erected, back to the wind. Leave the doors and sills zipped up and folded over. When the groundsheet corners have been pulled out so that the base is stretched to exactly the right shape.....

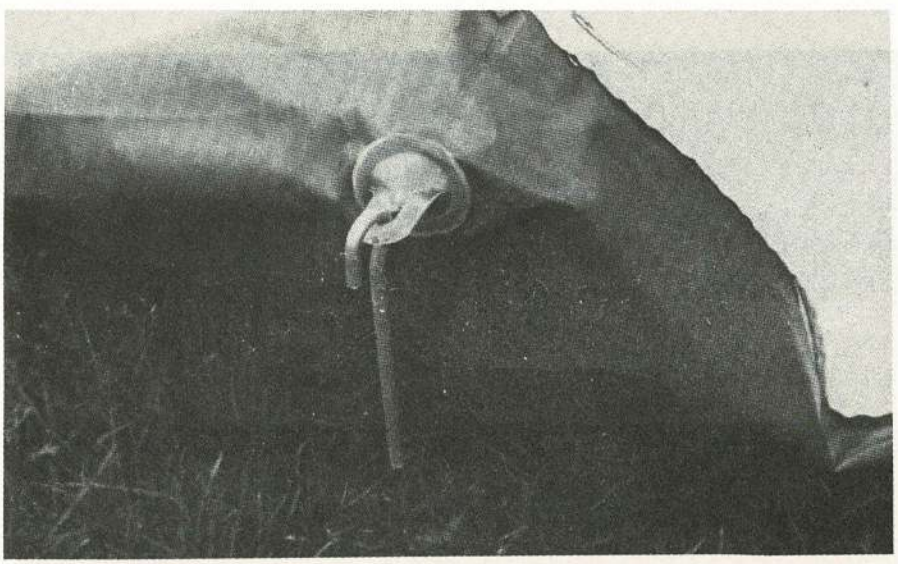


Fig 3E Peg the corners. This tent has both vacu-lugs and anchor lugs. The vacu-lugs shape the floor and the anchor lugs locate the groundsheet wall and relieve the vacu-lugs of any strain. This is a picture of the vacu-lug.

(AL4, Sep 78)

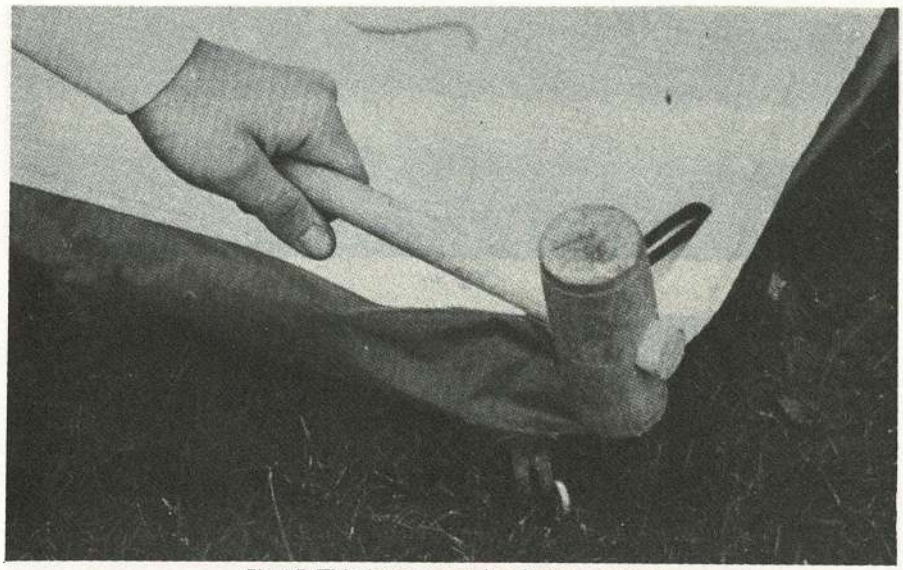


Fig 3F This is the vacu-lug being pegged.

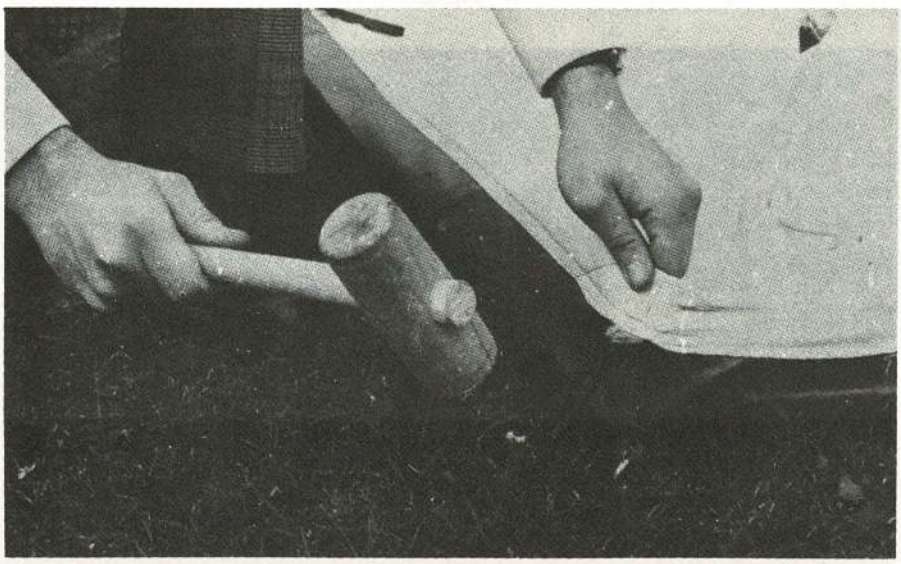


Fig 3G This is the anchor lug pegged by its rubber loop which takes the strains. Peg each corner of the tent as shown in Figs 3F and 3G — making sure that you keep the base of the tent stretched to exactly the right shape.

Fig 3H

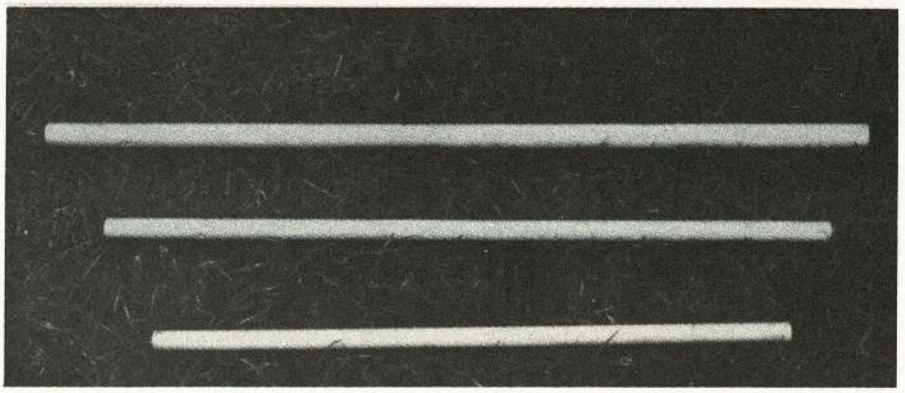


Fig 3J

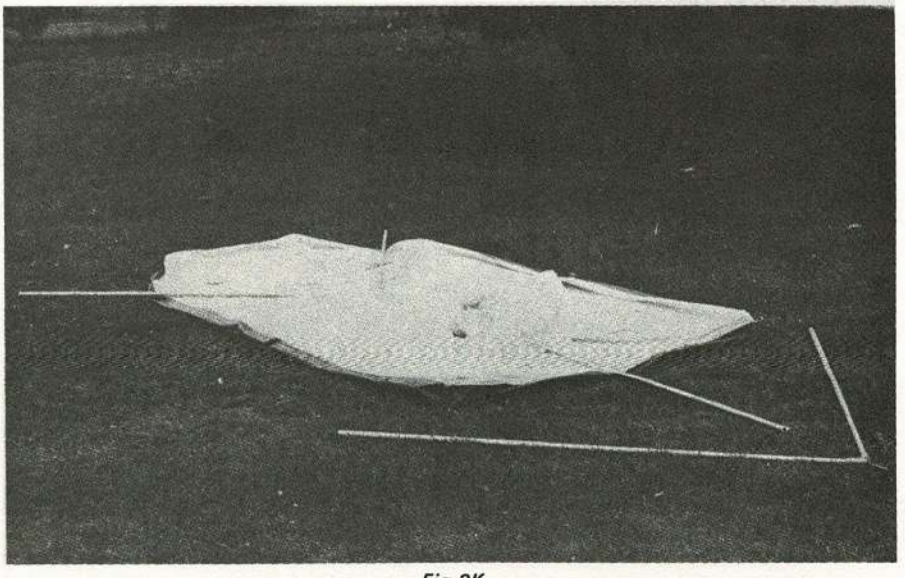
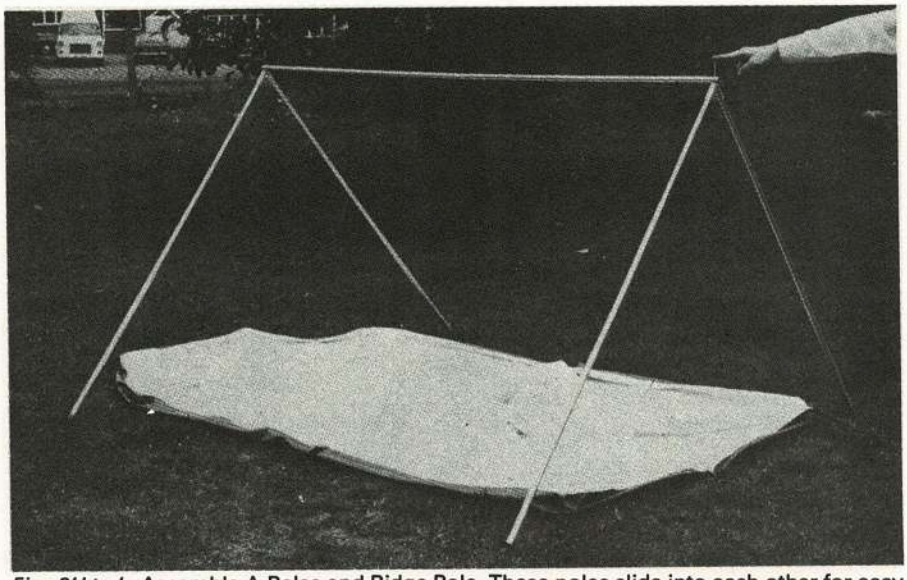


Fig 3K

(AL4, Sep 78)



Figs 3H to L Assemble A-Poles and Ridge Pole. These poles slide into each other for easy packing. Remember to place the rubber pads at the base of the A-Poles.

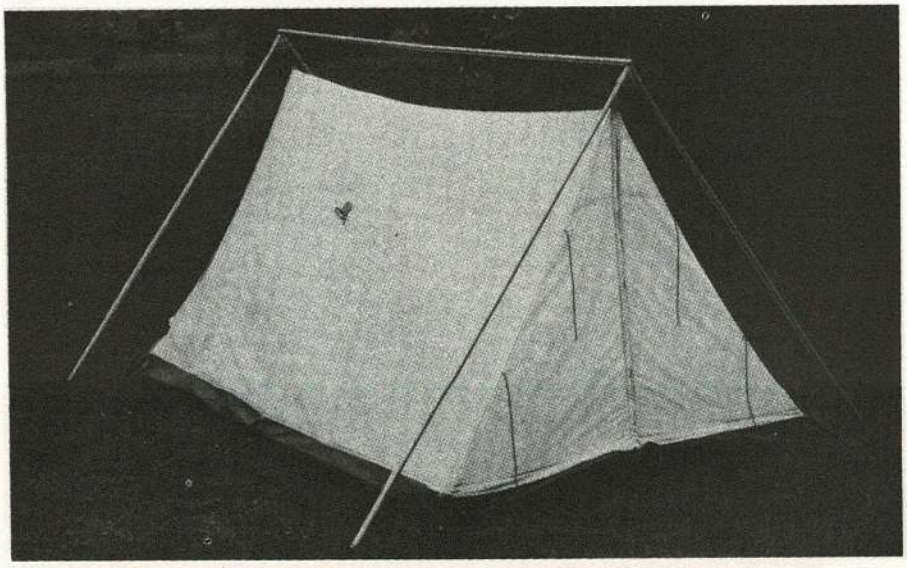


Fig 3M Suspend the inner tent by the "S" hooks.

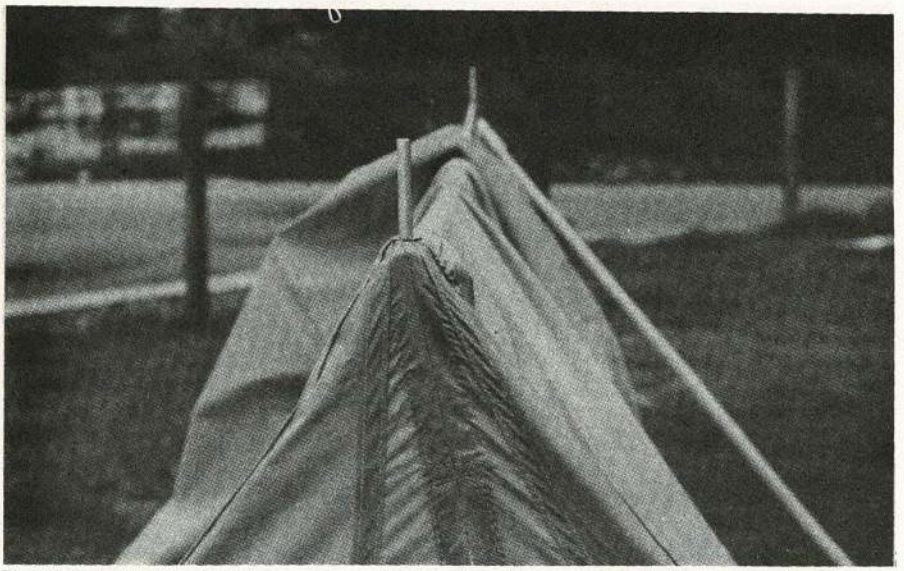


Fig 3N Take the flysheet, leave it zipped. Place the door end over the inner tent door A-Pole and run the back end over the rear A-Pole.

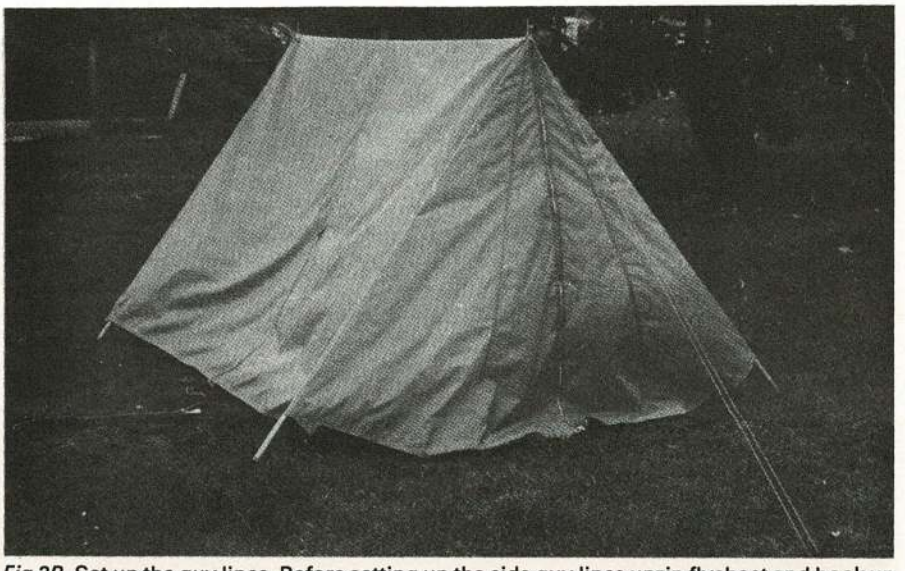


Fig 3P Set up the guy lines. Before setting up the side guy lines unzip flysheet and hook up the inner tent/flysheet spacers Fig 3Q. They ensure the optimum spacing between the two for best ventilation against condensation problems.

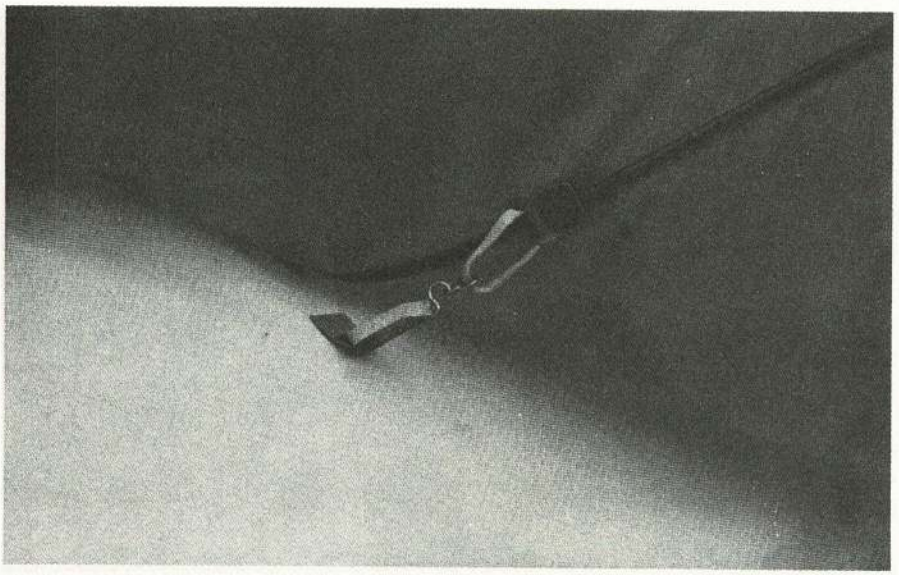


Fig 3Q Hook up the inner tent/flysheet spacers — one each side. Look for them between the flysheet and the tent.

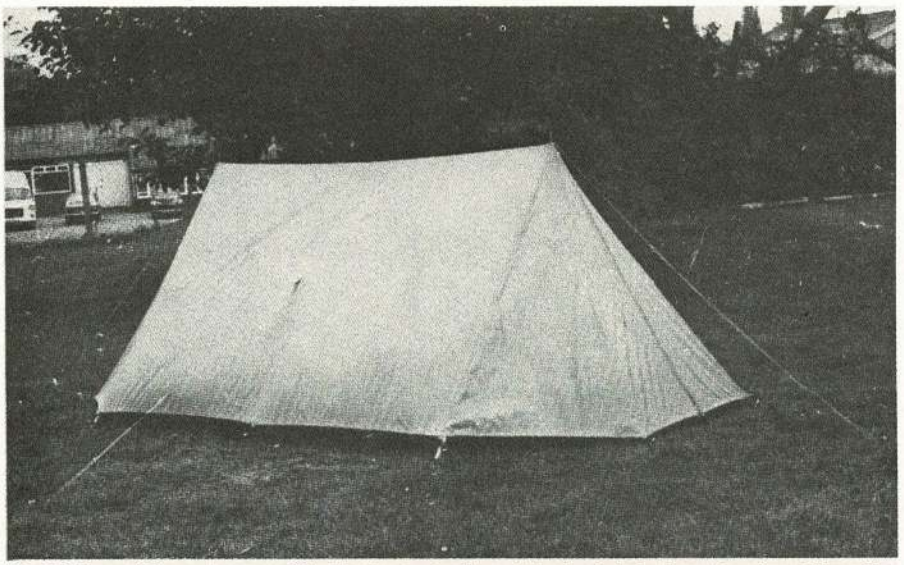


Fig 3R Peg all four corners of the flysheet, starting at the back (windward end) and then the remaining anchor points.

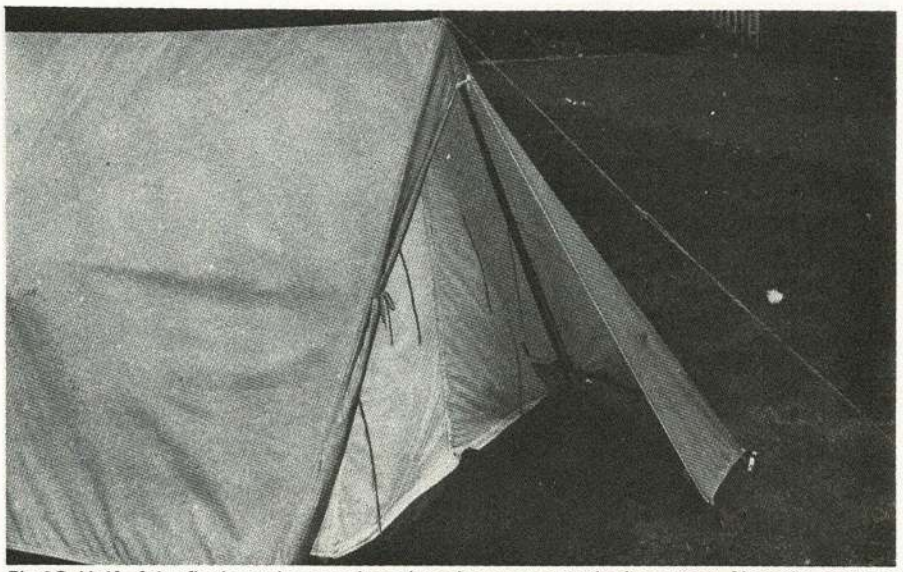


Fig 3S Half of the flysheet door unzipped to give access to the inner tent. Note the storage space outside the inner tent.

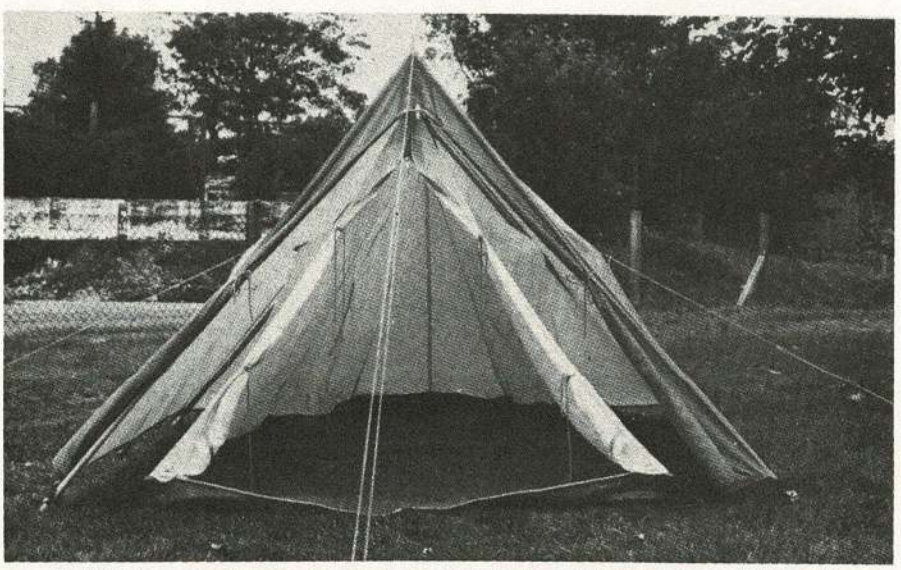


Fig 3T A good pitch completed. Inner tent door and flysheet doors fully open.

(AL4, Sep 78)

Pitching a Tent with no Ridge Pole

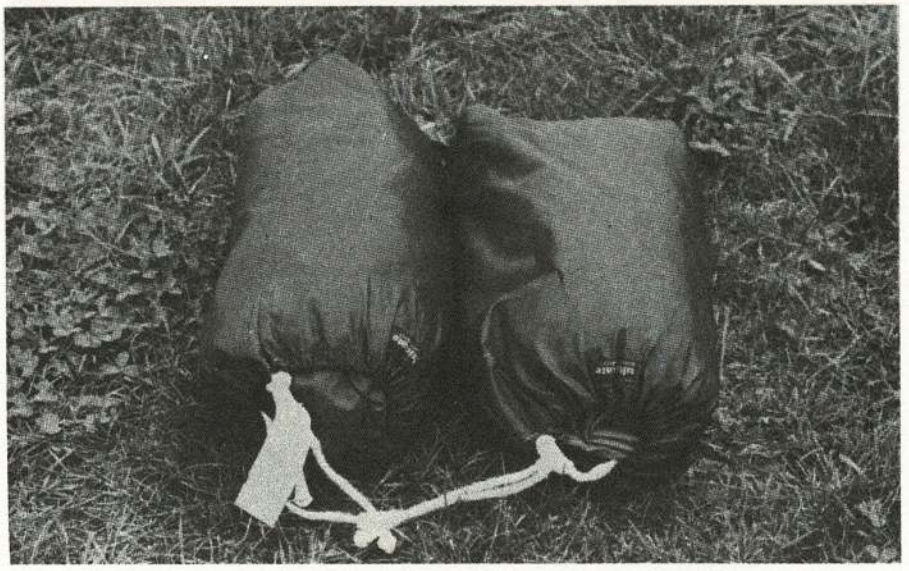


Fig 4A This is a 2-man, wedge shaped, double bell-ended tent with no ridge pole. It weighs 2.90 kilograms (6 lbs 6 ozs) and comes in 2 carrying bags.

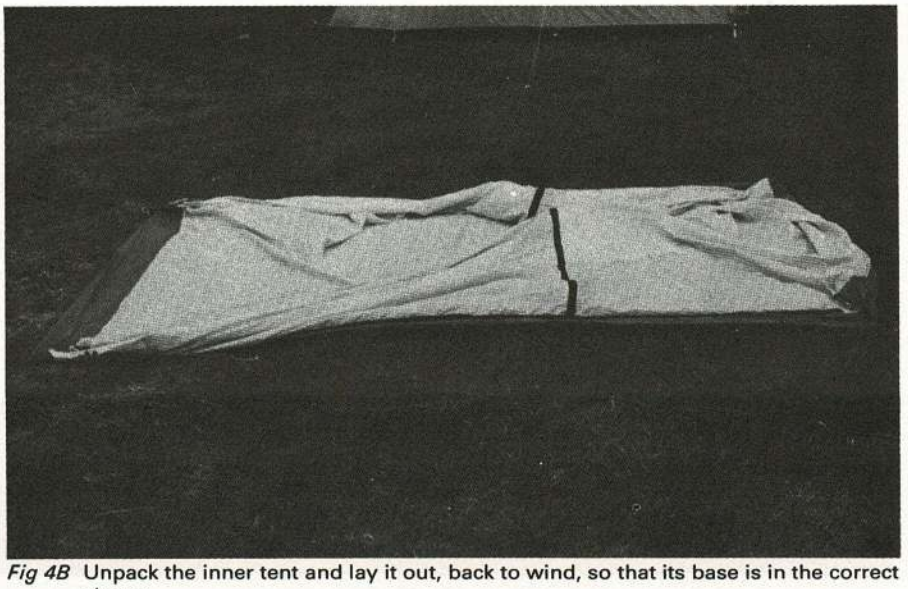


Fig 4B Unpack the inner tent and lay it out, back to wind, so that its base is in the correct shape.

Fig 4C Peg the corners. This tent has corner lugs and anchor guy lines.

Fig 4D Corner anchor guy lines.

(AL4, Sep 78)

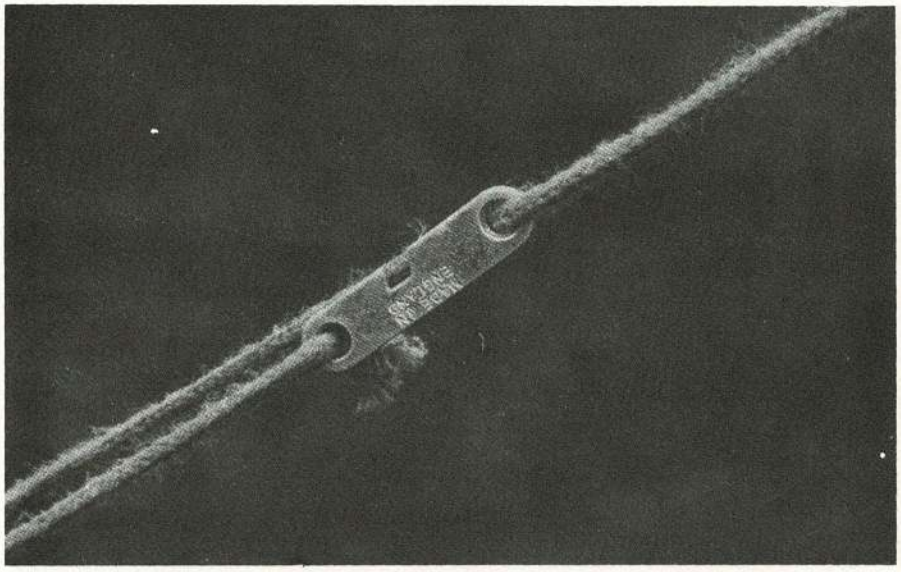


Fig 4E Guy line runner free.

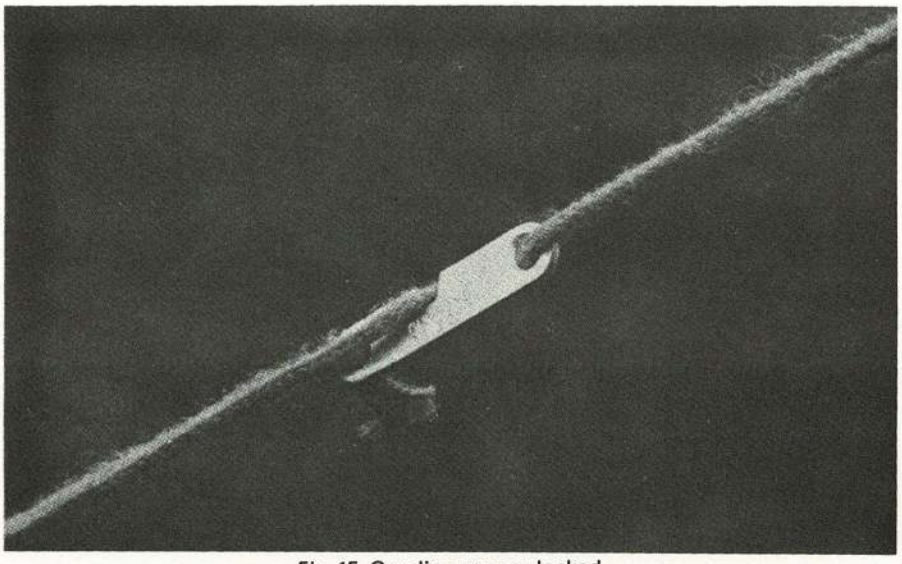


Fig 4F Guy line runner locked.

(AL4, Sep 78)

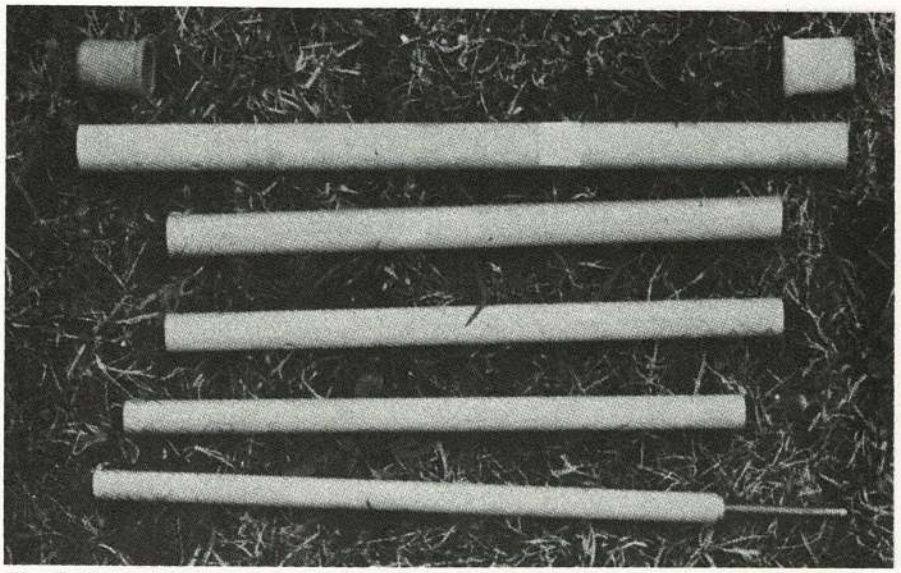


Fig 4G Assemble the poles (two) and remember the rubber stop at the base. Store the spare rubber stop carefully–back in the pole bag.

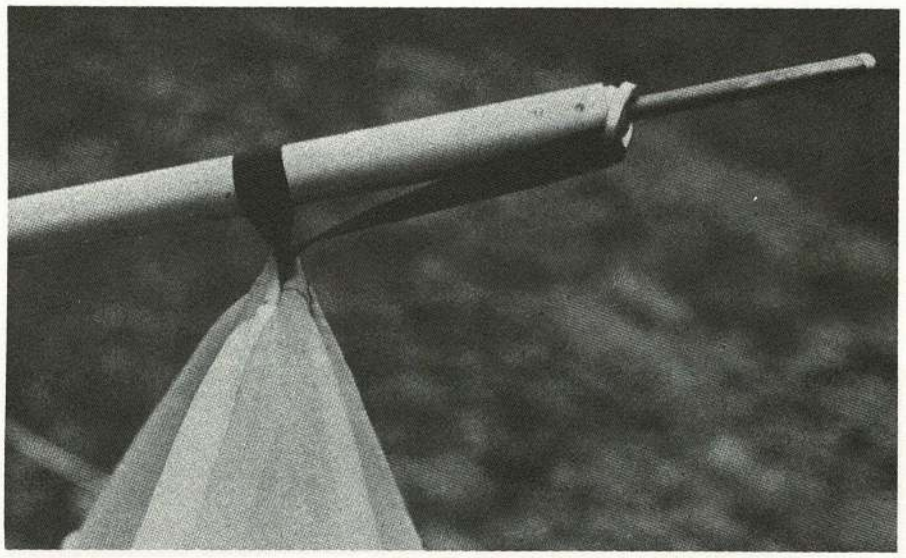


Fig 4H

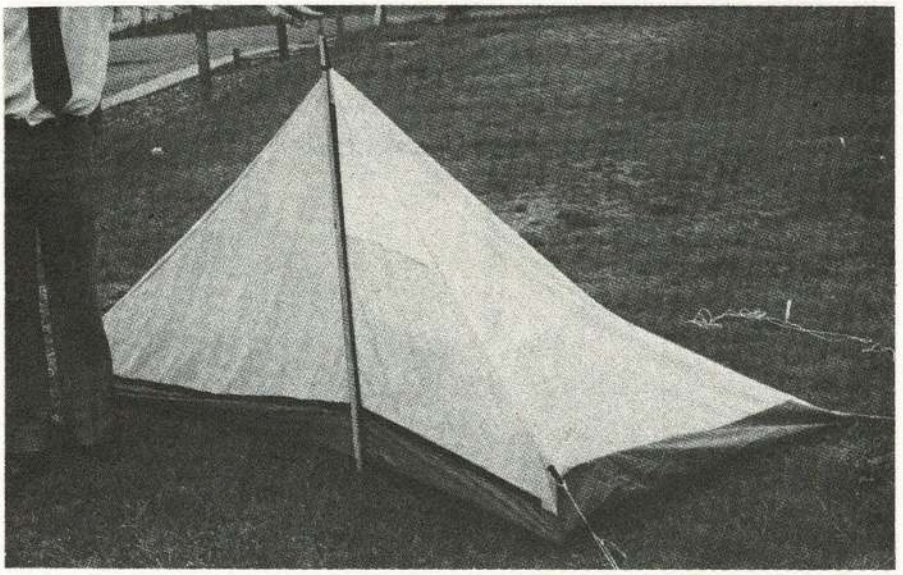


Fig 4J Special method of attaching the pole to the inner tent. One pole in position.

Fig 4K Second pole in position and guy lines set.

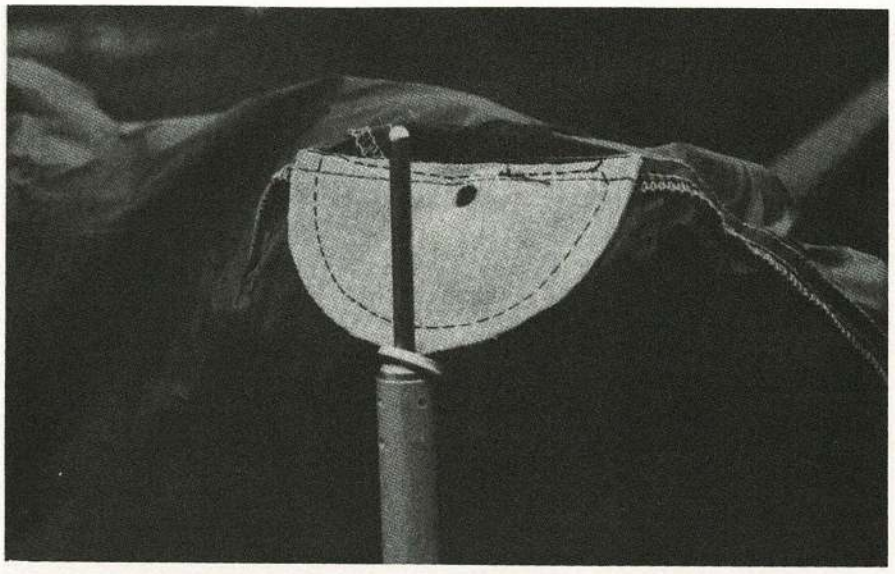


Fig 4L Unpack the flysheet; leave it zipped and turn it inside out to ensure that the pad is placed over the pole correctly. While doing this take the guy line off the pole and replace it when the flysheet is correctly positioned.

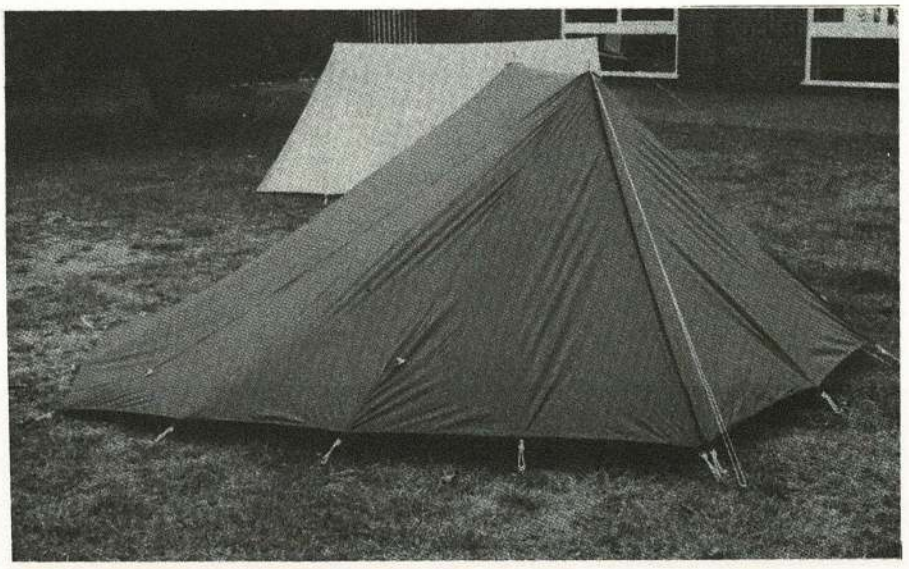
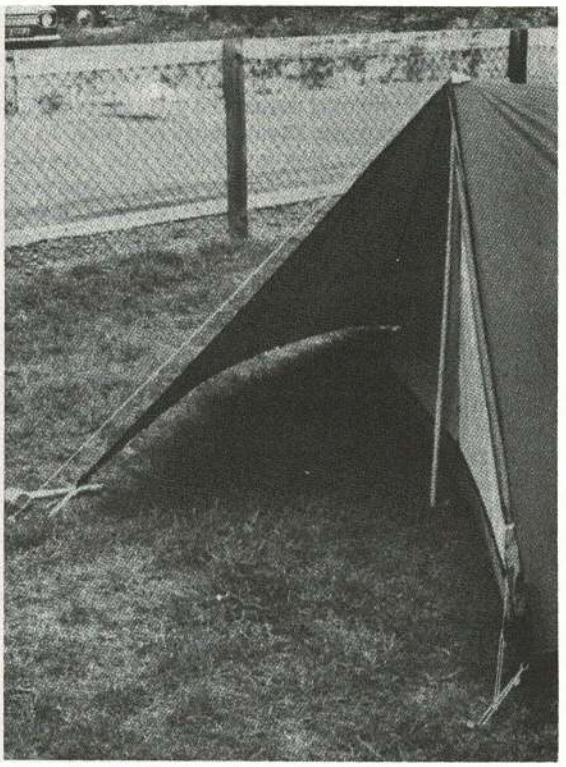


Fig 4M Peg out the flysheet all round.

Fig 4N One half of flysheet door unzipped. Note the considerable storage space.



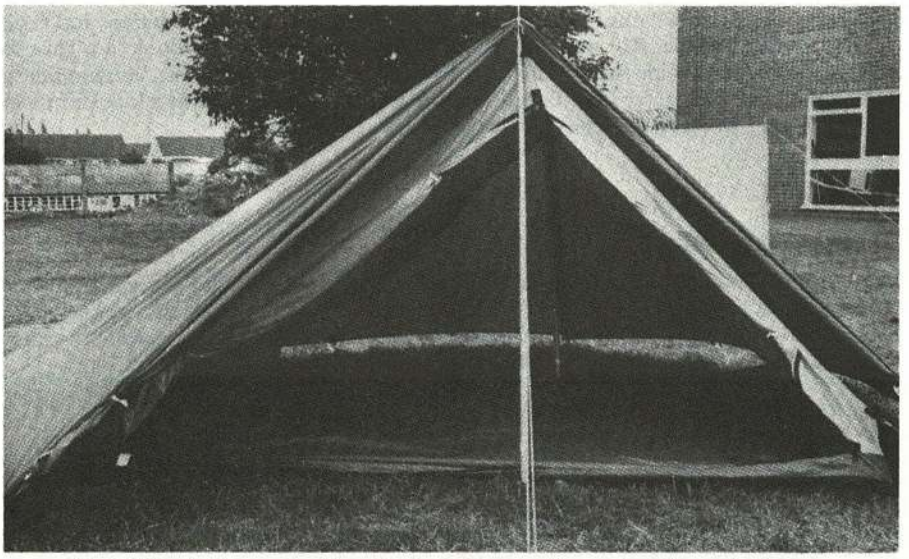


Fig 4P Ready for occupation. Flysheet door and inner tent doors fully open.

Living in a Tent

16. Living in a tent is best learnt by experience but there are one or two matters that can be considered in advance. In hike-tents you cannot stand up, you can only sit or lie down. Thus you should reduce the need for movement to a minimum and if two people occupy a tent only one should move at a time. In order to make the most of the room available, leave your sleeping bag and your gear packed until you need it and once you have used an item repack it when you no longer need it. In a 2-man tent at bedtime you should take it in turns to break out your bed roll and get to bed. Don't forget your torch and batteries (*see* para 35), otherwise you will have no light in the tent.

17. If your tent has no flysheet then you must be careful when inside not to brush against it, whether it is made of cotton or nylon. Be careful, too, to take off your wet outer clothing and boots before you enter the tent otherwise you are likely to make all your dry things inside the tent wet also. If there is no prospect of drying them, put them in a polythene bag out of the way until they can be dried. If your guy lines are of hemp rope make sure that you adjust them to allow for the contraction that will take place when they get wet. Remember that a large polythene bag that will go loosely over your head and cover you down to the ground can be a convenient protection from the rain if you have to go outside after you have taken off your protective clothing.

18. In any tent, but particularly one made of nylon, condensation can become a problem. Your body heat will warm up the air inside your tent and your body will continue to expel water vapour; it will not be long before the humidity becomes high. The water vapour in this warm wet air can condense on the inside of the cold tent walls. If you do not rub against the tent it should not become serious. The only thing you can do to reduce condensation is to ventilate your tent. If it has ventilation flaps open them up. If you have a flysheet you can perhaps unzip the doors a little, especially if there are two doors, one at each end.

19. For comfortable living in a tent, plan ahead. Collect water in a container and keep it near to the entrance. Plan your cooking and food storage so that you do not have to turn out your pack inside the tent in order to find your drinking cup, etc. Remember to take some recreational facilities in case you are confined to the tent for a long period in rain — book? small radio? pack of cards?

Striking (Taking Down) The Tent

20. A tent should be taken down and packed only when it is dry. If this cannot be done and you must pack it wet, unpack it and dry it thoroughly at the very first opportunity. Cotton tents deteriorate quickly if they are left packed wet; nylon ones will not suffer quite so much, but you must dry all types.

21. Reverse the procedure listed in para 14 to strike a tent.

22. When you have taken down and packed your tent (*see* the next paragraph) and all your gear, clean up the site. An accomplished and skilful camper will leave the site so that it will not be possible for anyone to tell that he has been there save for the flattened grass. Rubbish that cannot be burnt, eg tins, should be flattened and taken home or to base in a plastic bag for disposal.

(AL4, Sep 78)

Packing The Tent

23. Lay the tent on the ground, collapsed on to its base, with the doors open. Fold the doors over on to the main part. Fold the walls over on to the main part. Fold the sides to the middle. Fold the result into two or three to fit the container. Clean off the underside as you fold it. Scrape and clean all pegs and pack in their carrying bag. If the tent manufacturer did not supply a bag, obtain one, otherwise the pegs may easily damage the tent.

Repairs

24. Make repairs at once to prevent them becoming worse. Tears or rips in cotton tents can be sewn up; in nylon tents a patch can be placed on both sides and stuck together by an appropriate glue.

Other Considerations

25. There are many other matters about camping that can be discussed and planned in a classroom. We can do no more than introduce them here and leave you to look forward to their further study in later training.

26. **Clothing.** Heat is continually produced by the body and is lost through the skin, all the skin from head to toe. Water also continually escapes from the skin. Thus, to keep warm, you need to trap and keep just the right amount of body heat and let the rest escape, but at the same time you must allow the body's water (sweat in visible form but vapour in invisible form) to escape. This is difficult and, once again, a compromise has to be arrived at. The method of retaining body heat is to insulate the body by wearing clothes that trap layers of air around the body; you then can vary the layers by wearing more clothes if you are too cold, and taking clothes off if you are too warm. Wool is generally considered to be the best material for trapping air and thus providing an insulating layer. It is most important to start next to the skin with suitable clothing; your final waterproof/windproof external garment is merely the outside layer. Start with woollen cellular or string underclothes and make sure you have long johns in really cold weather. Then a flannel shirt, wool trousers, wool socks, all wool balaclava for the head and woollen mitts for the hands and fingers. Wind and rain rapidly break down the insulating layers of air, wind being the worst, so you do need really windproof and rainproof outer covering in wind and rain, including the head, but you must also have ventilation to allow the body's water to escape. The trouble here of course is that if your rainproof won't let the rain in, it also won't let your body's water escape. See that your waterproof has some sensible ventilation; perforations in the armpits are an example. When wearing it, if you feel yourself sweating too much, there are some things that you can do without spoiling your insulation too much. Try opening up the extremities, ie at the neck, at the wrists, or at the bottom of the trousers to allow more of your body's water to escape; if that isn't enough, bare your head, face and hands, and let your sweat escape through the skin. A cool head is always an advantage; use your head to adjust ventilation!! Don't forget that, instead of waterproofs, a large polythene bag over your head and pack, reaching to the ground, with a hole cut to breathe through makes a fine protection from a storm and allows your body water to escape normally. You will probably collect much condensation on the inside but this will largely run down to the ground.

27. **Spare Clothing.** On an expedition, wear the right clothing and take spare clothing, but don't be too ambitious; underclothes and socks are the only really essential spares; larger woollen spares can be bulky and heavy. Take plastic/polythene bags to store your spares.

28. **Footwear.** Boots are best. The choice of boot, care of your feet, correct socks and correct use of them are all of obvious importance. Find out as much as possible from camping shops and gain as much experience as possible. Make sure that you have properly worn in the boots and socks that you take with you on an expedition. Never take brand-new items. Don't forget to take something, preferably waterproof, eg clogs, to slip your feet into to visit the toilet at night or for use around the tent.

29. **Sleeping Bag.** Apart from its obvious purpose, a sleeping bag must provide you with insulation from the cold night air and the ground, to retain your body warmth. Also there must once again be ventilation to allow the body's water vapour to escape and for this reason a cotton sheet inner lining, which "breathes" is essential. The bag must have a good quality filling and be sewn in such a way that the filling will not compress or shift so that its insulating properties break down under the weight of your body. Pyjamas should be flannel but they are relatively heavy and it might be best to wear a light woollen sweater and a pair of football shorts; these could then be a change of clothing if you should happen to get wet through. Seek advice before you buy a bag. Once you have got one, keep it dry; its insulation properties will quickly be lost if it gets wet.

30. **Rucksack.** The correct rucksack, the right way to pack it and the right way to wear it is another interesting study. Once again there is a very wide range of choice and the right choice will contribute very much to the enjoyment of your expedition. A man stands on two feet only; a load on his back makes him bend forward to bring his centre of gravity over his feet. Too much bending forward, and he will not enjoy his walking very much. Loads should therefore be kept as close as possible to the spine and as high as possible where only a small forward movement is needed to bring the centre of gravity over the feet. Those who carry loads on their heads are very knowledgeable and well balanced! However, it would not be very practical to embark on an expedition carrying your gear on your head. Designers of rucksacks get as close to the ideal as possible, at the same time allowing the load to be fixed firmly and remain on your back without your constant attention. You must co-operate by choosing the one that suits you best — probably a frame-sack of robust construction, reasonably capacious, and one in which the load sits high and comfortably. Then you must pack it correctly. The lightest items go at the bottom and the heaviest at the top. Fortunately this arrangement also suits the requirement that the items needed first will be at the top, eg tent and cooker.

31. **Hygiene.** Just because you are going to live out in the open, revert to nature so to speak, that does not mean that you should go too far and act in an uncivilized manner. Wash, shave (if you need to), clean your teeth and follow normal hygiene requirements. Take soap, flannel, toothbrush, toothpaste, towel, toilet paper, brush and comb. Take plastic bags to keep your things in. Don't forget paper handkerchiefs. You must be particularly careful on points of hygiene while camping because you don't want to spoil your enjoyment by illness. Thus you must make provision for washing and drying your hands after using whatever toilet facilities you have been able to set up. At the toilet, excreta should always be covered immediately by a handful of soil.

32. **Cooking.** Make no mistake about it, this is a camping essential, well worth the weight of cooker and utensils. After an all day hike carrying your gear you really will need hot drinks and a hot meal to replenish your energies. Remember the need for that

hot drink before you begin the work of setting up your camp. There are three main methods of cooking:

a. *Pressure Paraffin (Primus).* This is probably the best, but is bulky and complicated by the need for methylated spirits to pre-heat the burner. Whenever loads must be limited the gas type is generally preferred. If you do take a Primus type, practise in advance to know how much fuel to carry for it.

b. *Gas Type.* There are numerous types using propane or butane gas in cartridges or cylinders. They are simple and convenient, but not so quick as the paraffin type, nor can you tell how much fuel is left. Again, you must practise beforehand to know the right utensils to use (some dangerously unbalance the whole cooker) and to calculate how much fuel to carry.

c. *Open Wood Fire.* This might give comfort on a cold evening but it needs a high degree of skill to site it, light it and to use it properly. There are many areas where it is not allowed, so do not light one unless you are quite certain that it is allowed. However, there are some conditions where one might be needed for survival. The knowledge and skill required to handle an open fire and use it for cooking purposes is one that might take some time to acquire but one that could stand you in good stead one day even if you don't use it on an expedition.

33. **Cooking — Utensils and Auxiliaries.** The selection of cooking pans depends on the type of cooker you have decided to use. Much weight can be saved by making a careful choice. The Army mess tin will probably be favourite. Rigid plastic is generally best for plates and beakers; but go for a beaker or cup with a handle, to save your fingers on that much needed hot drink. And don't forget knife, fork, spoon (in metal, not plastic), washing-up materials, and box of matches in a waterproof container.

34. **Food.** Remember that food is no good without plenty of liquid intake to allow the body to digest it and supply you with warmth and energy. Hot meals are better than emergency dry rations; keep those for an emergency. The food you carry must be carefully worked out so that your daily ration will be sufficient to replace all the calories that you have used up during the day. Don't forget the salt and sugar! Breakfast should be a good meal, lunch a light meal and the evening meal the main one. A good camp stew in which you put meat, vegetables, soup cubes, and anything else appetising is probably the favourite as this cuts down the need for a number of cooking pots. Dried and dehydrated foods, especially vegetables, will be convenient because of their light weight. Much use can be made of a bag of flour and a pinch of salt; dampers and flapjacks are more interesting than bread. Food is a subject that needs pre-planning and practice in cooking, using the equipment you intend to take. Do not wait until you are on your expendition before you try to light your cooker!

Miscellaneous Kit

35. In addition to the major items, the following are likely to be very useful, if not essential:

Meat skewers.
Mallet.
Torch and batteries.
Polythene bags of various sizes including one big enough to go over your head and cover you down to the ground.
Knife. A strong sharp clasp knife.

Axe (if you are going to make fires). Don't use one unless you are well-practised and know the safety requirements.
Whistle. Useful for attracting attention and signalling.
Maps and Compass — of course. Their full use will be learnt as you progress through your ATC training.
Water bucket. Preferably a canvas one that is easily packed.
First Aid Pack. Make a personal selection and carry it in an accessible place.
Length of light rope and strong nylon cord. Almost certain to be needed.
Trowel or digging (trenching) tool. For drainage and use in toilet area.
Clogs?
Recreation. Swimming trunks? pack of cards? small radio? etc.

Don't forget to weigh everything and test load your pack so that you know what you can carry and what you must leave out. By experiment, see if you can include everything necessary and finish with a total weight of 20-25 lbs.

The Country Code

36. The Country Code is a set of simple rules designed to help you to enjoy the countryside safely with due respect for the interests of others. The Code can be found in the Air Cadet Training Handbook on adventure training, ACP 17. Those who love the countryside will not grudge the little trouble needed to keep it unspoilt.

Conclusion

37. This chapter might seem to be a formidable list of things to study, discuss and practise in the process of working up camping skill so that expeditions can become a reality. But you will find the necessary study and planning enjoyable and full of interest; it will also repay you handsomely. After all, anyone can camp, after a fashion, even if he knows little about it, but he may not enjoy it very much and may well do damage or have an unnecessary accident. The pride and satisfaction that you will gain by going out on successful expeditions, which are successful *because you have built up sufficient skill to make the right decisions*, will be your reward. And you will be the one who will know if you have done well.