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AUSTRALIAN MILITARY FORCES

USER HANDBOOK

TENT, EXTENDABLE, GENERAL PURPOSE 30ft x 20ft

1966

MILITARY BOARD

Army Headquarters
CANBERRA.

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Issued by command of the Military Board.

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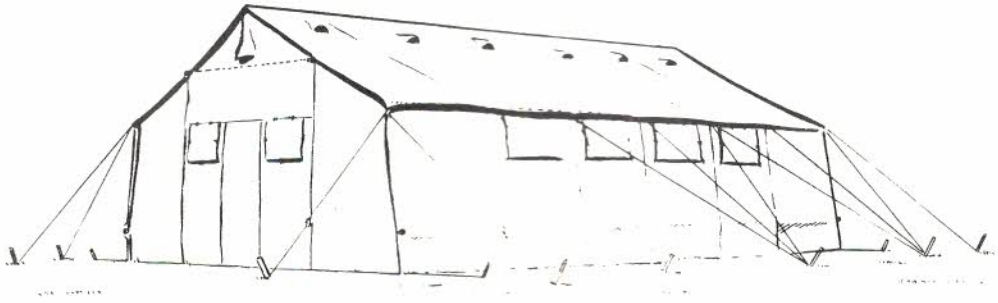
AUSTRALIAN MILITARY FORCES



USER HANDBOOK

TENT, EXTENDABLE, GENERAL PURPOSE 30ft x 20ft

1966

AMENDMENTS

AAO's	Amendment No.	Signature and Date

SYNOPSIS

The lightweight tent described in this User Handbook is for General Purpose use.

It can easily be erected by a team of one NCO and seven Other Ranks and can be transported by air.

The tentage is of rot-proofed lightweight material, and consists of two end sections and one extension section. If extra length is required, additional extension sections can be used.

Provision has been made for the attachment of a tunnel section which provides a covered way between brigaded tents and facilitates communication between wards when the tents are used in the hospital role.

THIS USER HANDBOOK IS NOT TO BE USED AS AN AUTHORITY FOR DEMANDING STORES

CONTENTS

ILLUSTRATIONS

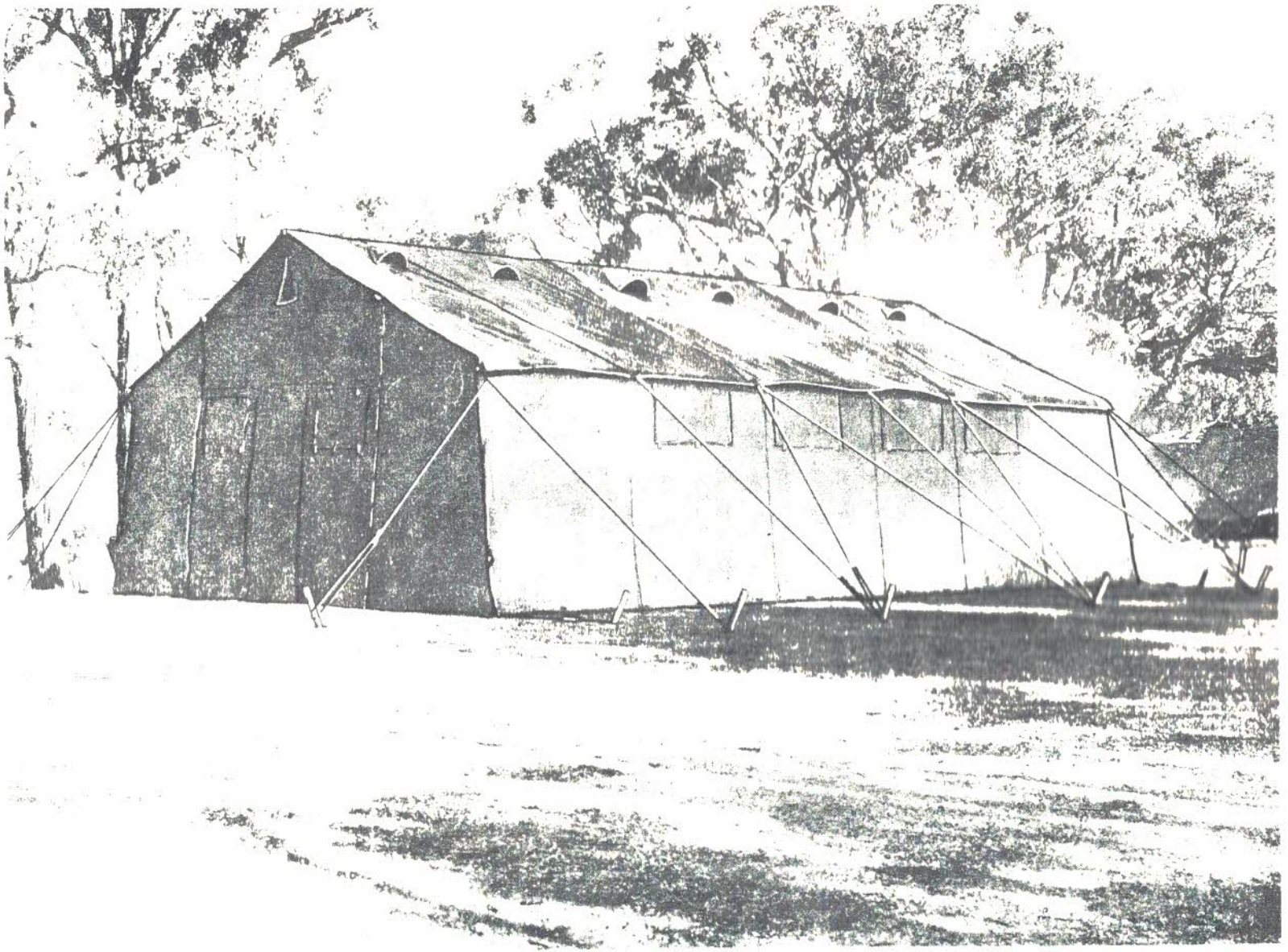


FIG 1 - TENT, EXTENDABLE, GENERAL PURPOSE

CHAPTER ONE - GENERAL DESCRIPTION

SECTION 1 - INTRODUCTION

1. The Tent, Extendable, General Purpose, 30-ft by 20-ft is of lightweight construction and simple design. It has a minimal number of different parts, is easily erected, and can be transported by air.

2. The frame is a simple slip joint rigid structure, covered by a rot-proofed lightweight textile cover consisting of two identical end sections and one extension section. Additional extension sections can be provided as required.

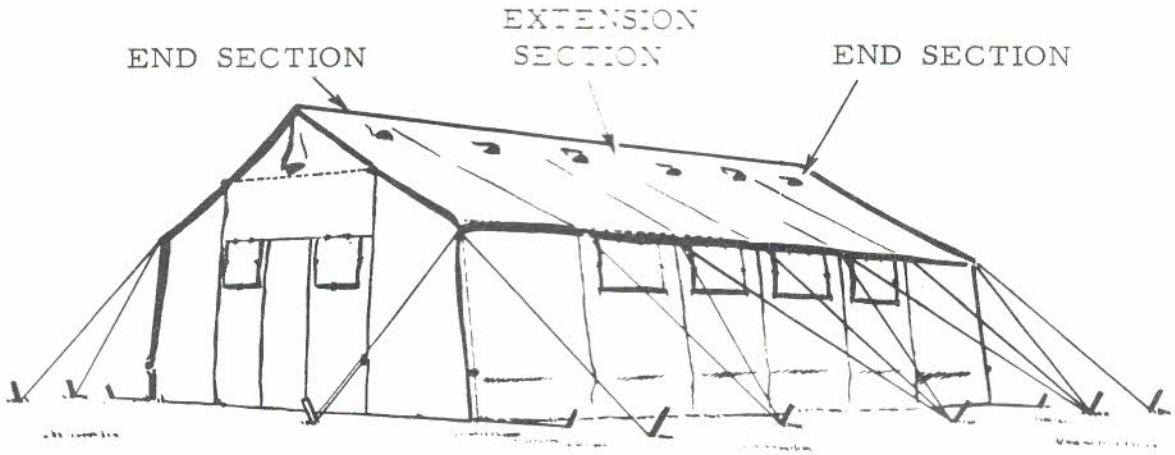


FIG 2 - TENTAGE DIVISIONS

3. Each end section consists of a 10-ft 6-in length of roof, walls, and doorways, and the extension consists of a 10-ft 6-in length of roof and walls. Each end section can be opened in three divisions to allow the entry of personnel and vehicles.

4. An inner draped roof of lightweight material is provided to reduce the internal temperature of the tent. The exposed face of the inner roof has an aluminium coating to assist reflection of light.

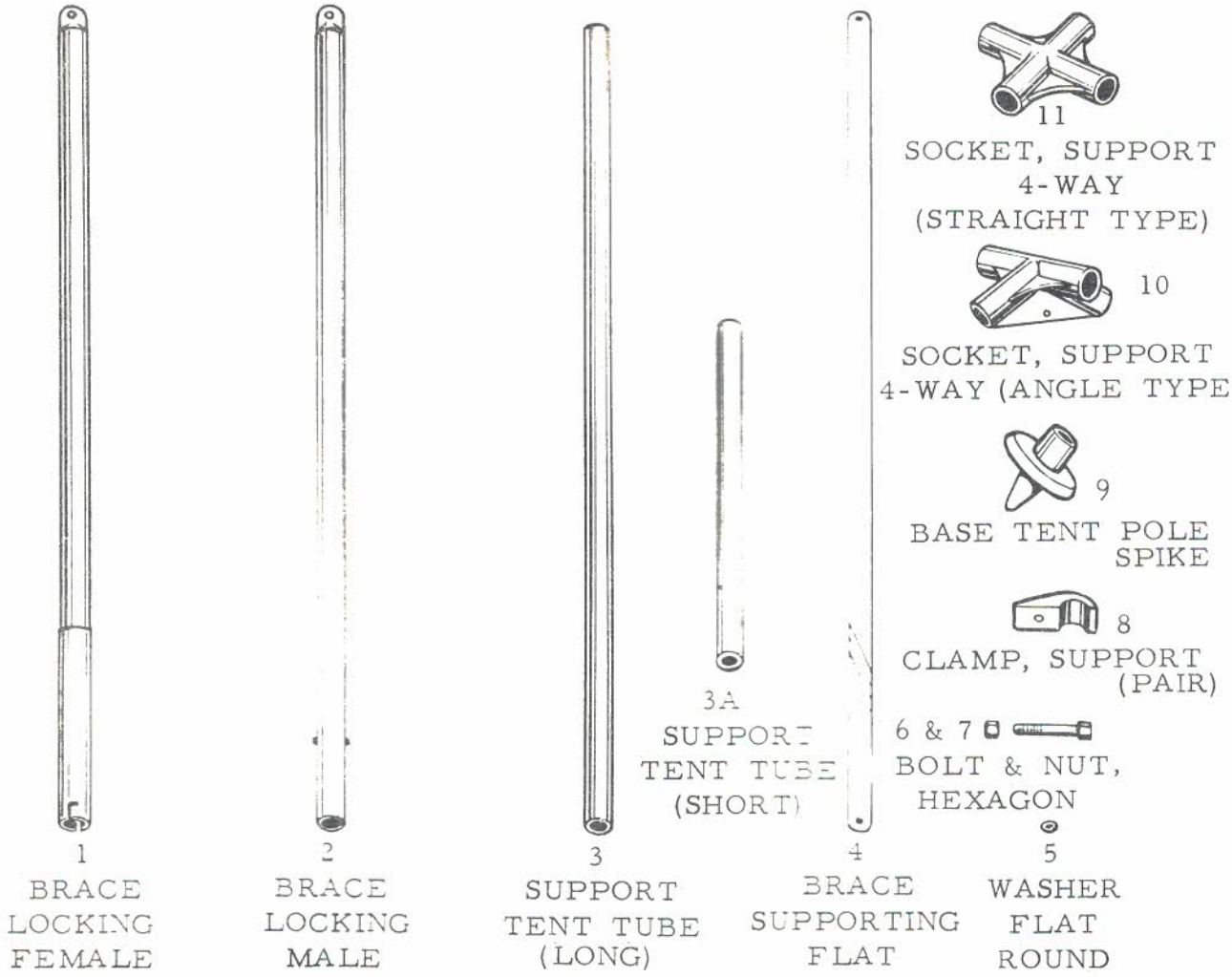


FIG 3 - FRAMEWORK COMPONENTS

5. Fig 3 shows the components used in the construction of the metal framework. The function of each component is described in the following paragraphs. Abbreviated nomenclatures are used to facilitate description of the erection drill which is detailed in Chapter Two. The full nomenclatures, together with the quantities of each item used, are given in Table 1.

SECTION 2 - USE OF COMPONENTS

TUBULAR LOCKING BRACES

6. The locking braces are used as lateral and diagonal braces in construction of the tent frame. The lateral braces are also used to support the inner roof and the door pulley assemblies.

The male and female braces are joined as shown in Fig 4 to make a complete brace.

A pair of support clamps is used at each outside end of the complete brace to attach it to the supports as shown below in Fig 5.

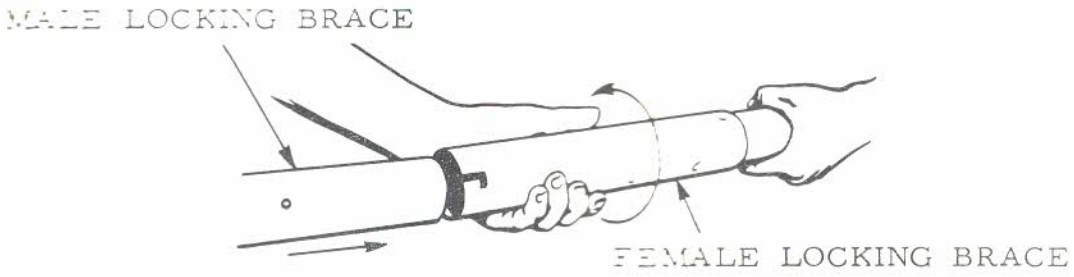


FIG 4 - JOINING MALE AND FEMALE LOCKING BRACES

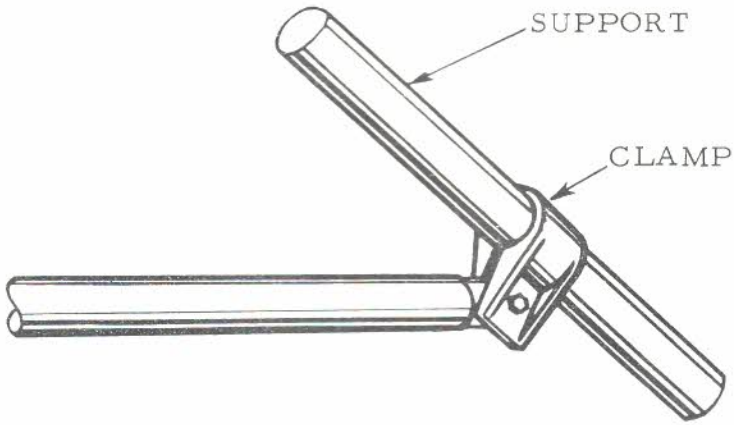


FIG 5 - USE OF SUPPORT CLAMP

Supports

The "Support, tent, tube, (long)" is the basic component of the tent framework. The "Support, tent, tube (short)" is used to form the lower walls. Four supports may be joined by means of "Socket, support, 4-way", straight type (Fig 6) or angle type (Fig 7). The angle type socket is used when a support is joined at an angle to another support, ie, at the ridge and eave line.

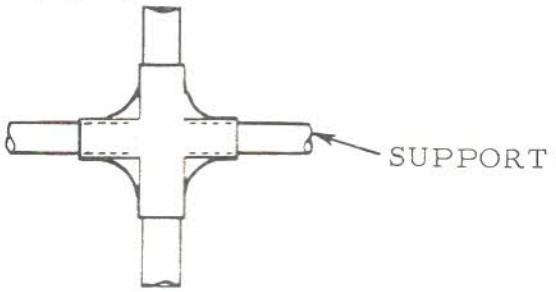


FIG 6 - STRAIGHT TYPE SUPPORT SOCKET

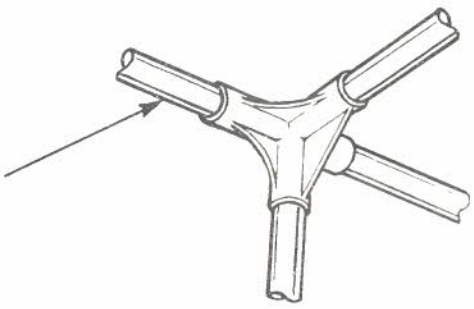


FIG 7 - ANGLE TYPE SUPPORT SOCKET

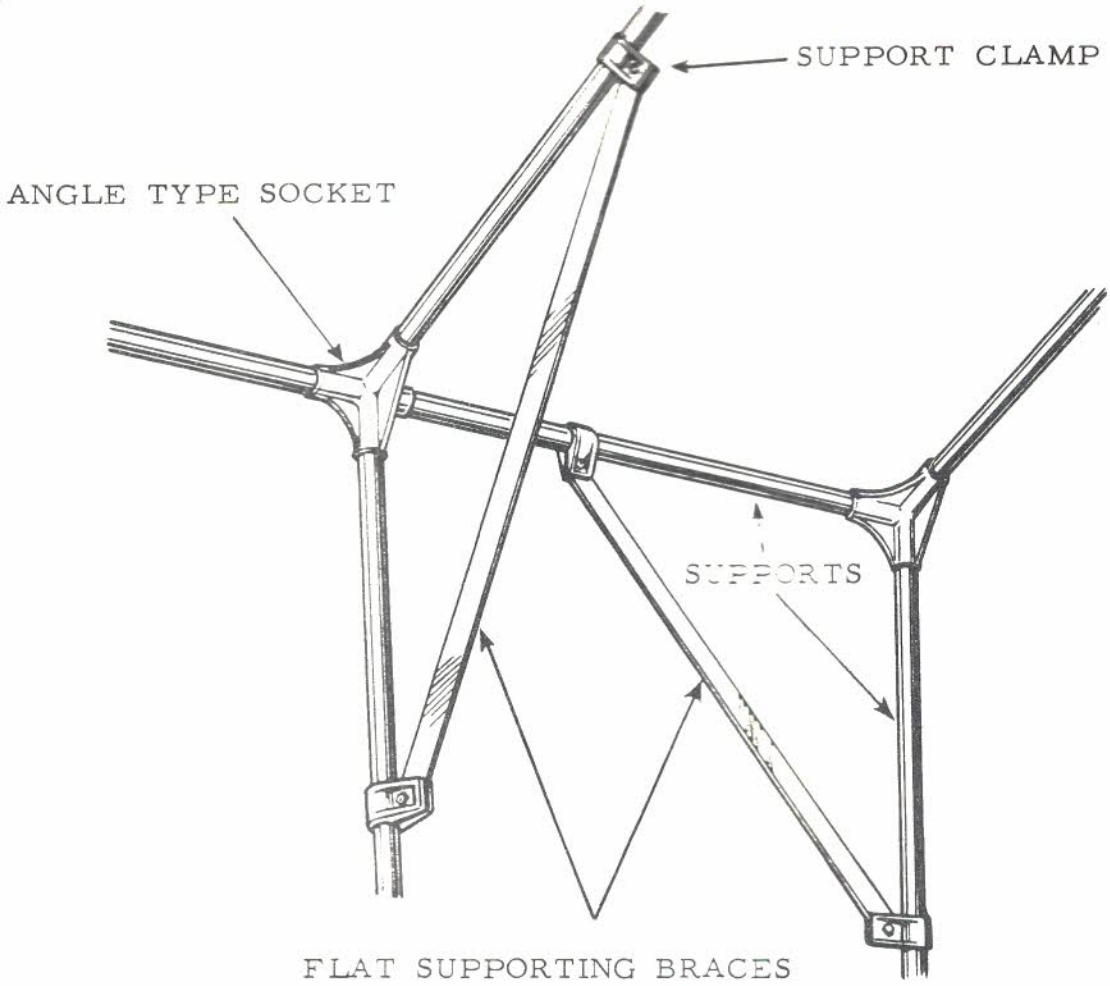


FIG 8 - USE OF FLAT SUPPORTING BRACES

Flat Supporting Braces

10. The flat braces are used in a similar manner to the tubular locking braces described in paras 6 to 8, and use the same support clamp with its nut, bolt, and washers. (See Fig 8).

Tent Pole Base Spikes (Fig 9)

11. The bases provide a firm footing for the tent poles (supports), as shown in Fig 10.

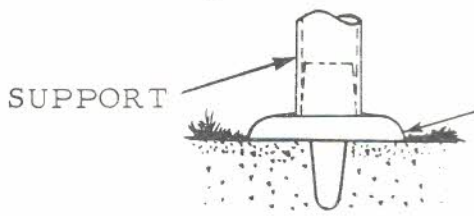


FIG 9 - USE OF BASE SPIKES

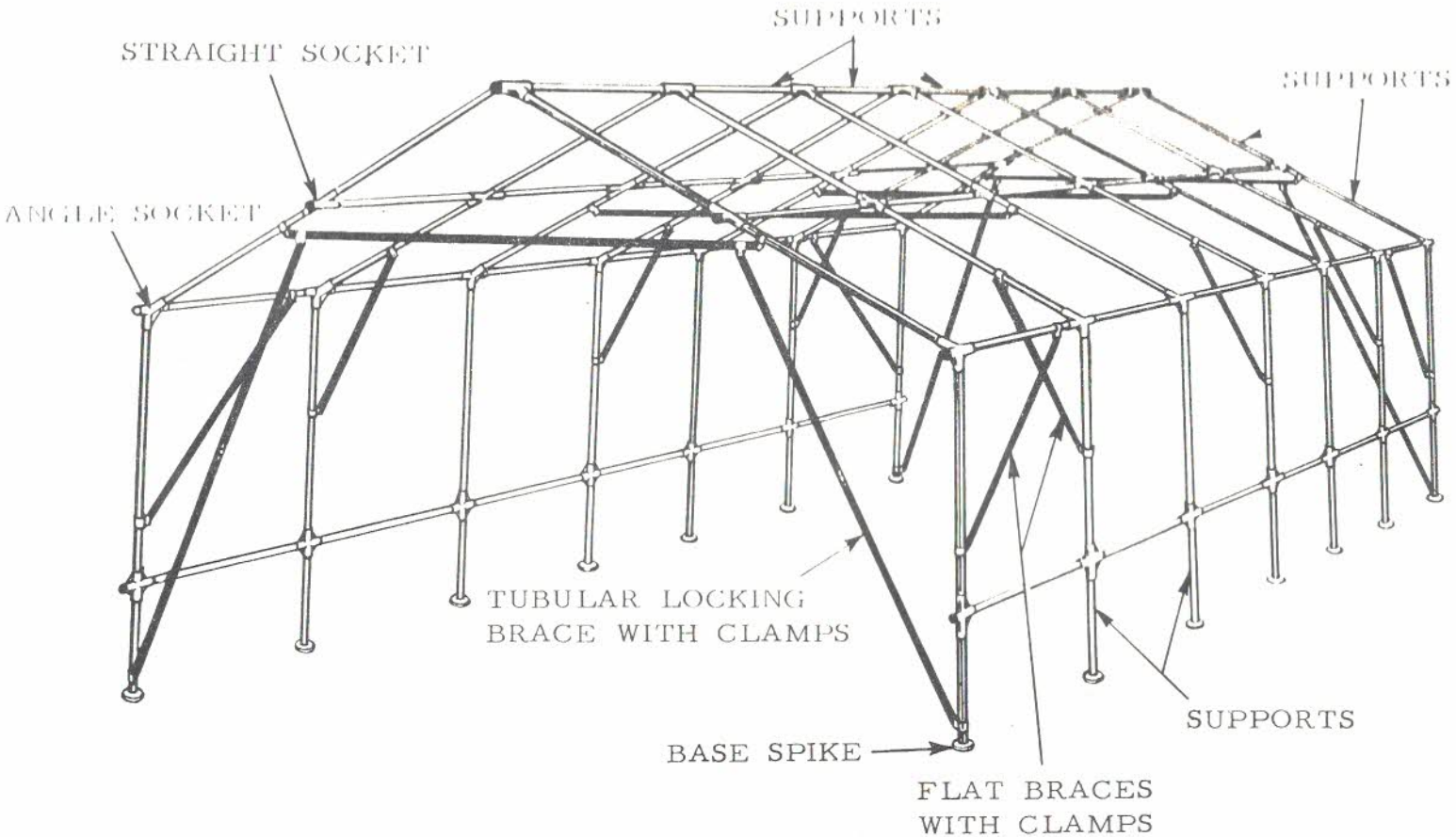


FIG 10 - COMPLETE FRAMEWORK

12. The use of all framework components is shown in Fig 10. The quantities of each component used are as follows (in the same order as illustrated in Fig 3).

Item 1	Brace, Locking, Female	8
Item 2	Brace, Locking, Male	8
Item 3	Support, Tent, Tube (Long)	84
Item 3A	Support, Tent, Tube (Short)	14
Item 4	Brace, Supporting, Flat	10
Items 5 to 8	Clamps (Pairs) Support, with nut, bolt, and washers	36
Item 9	Base, Tent Pole, Spike	14
Item 10	Socket, Support, 4-way, (angle type)	21
Item 11	Socket, Support, 4-way, (straight type)	28

SECTION 3 - IDENTIFICATION OF FRAME ASSEMBLIES

13. Fig 11 shows the framework of the tent less the bracing members (which can be seen in Fig 10). The following items only are used in this framework:

(a) Support, tent, tube (long)

(b) Support, tent, tube (short)

(c) Socket, support, 4-way, (straight type)

(d) Socket, support, 4-way, (angle type)

(e) Base, tent, pole spike

14. This diagram will facilitate identification of the various assemblies when they are mentioned in the erection drill in Chapter Two.

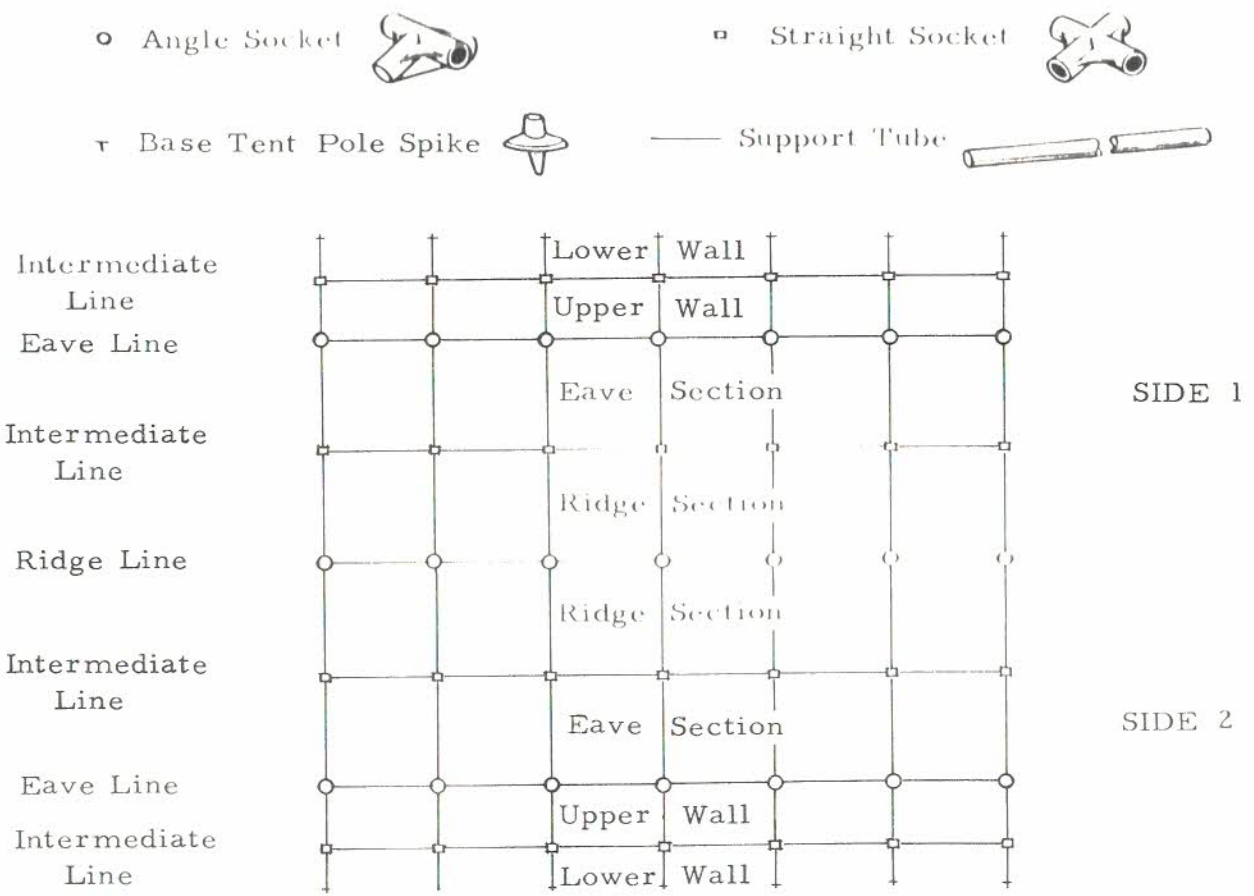


FIG 11 - IDENTIFICATION OF ROOF AND WALL ASSEMBLIES

TABLE 1 - LOAD TABLES

(1) TENT, EXTENDABLE, GENERAL PURPOSE, 30-FT x 20-FT, COMPLETE
(2) TENT SECTION, EXTENSION, COMPLETE

Designation and Stock Number	Qty (1)	Qty (2)	Weight (approx)
Tent Section, end, outer, general purpose, tent, 30-ft x 20 ft, 8340-66-023-6840	2		90 lb ea
Tent Section, extension, outer, general purpose, tent, 30 ft x 20 ft, 8340-66-023-6841	1	1	56 lb ea
Tent Section, roof, inner, storage and wksp, 40-ft x 20 ft and General Purpose, 30-ft x 20-ft tents, 8340-66-023-5959	3	1	5 lb ea
Brace, locking, tent, aluminium, tubular, male, 5-ft 4-in x 2 in od x 12 SWG 8340-66-023-5953	8))	1))	10 lb ea
Brace, locking, tent, aluminium, tubular, female with sleeve 5-ft 4-in x 2-in od x 12 SWG, 8340-66-023-7041	8))	1))	complete
Support, tent, tube member, aluminium, 4-ft 11-in x 2-in od x 12 SWG 8340-66-023-6843	84	26	3.6 lb ea
Support, tent, tube member, aluminium, 1-ft 8-in x 2-in od x 12 SWG, 8340-66-023-6844	14	4	1 lb ea
Clamp, support, tent, aluminium, 8340-66-023-5955	36 prs	6 prs	0.8 lb ea
Brace, supporting, tent, aluminium, flat, 5-ft 5-in x 1.1/2-in x 3/8-in 8340-66-023-5954	10	2	3.7 lb ea
Socket, support, tent, aluminium, 4-way, 2-in dia tubes, angle, 8340-66-023-5950	21	6	5 lb ea
Socket, support, tent, aluminium, 4-way, 2-in dia tubes, straight, 8340-66-023-5951	28	8	4.5 lb ea
Base, tent, pole, spike, aluminium, 4½-in long x 5-in dia, 8340-66-023-5952	14	4	1.1 lb ea
Washer, flat, round, CRES 3/8-in bolt size x 3/4-in od x .035-in thick 5310-66-023-5949	72	12))	(1) 6 lb
Nut, Plain, Hexagon, BSW, free fit, CRES 3/8-in, 5310-66-023-4718	36	6)	total qty
Bolt, machine, BSW, medium fit, CRES, hexagon head, 3/8-in x 2.1/2-in x 1.1/4-in min thread, 5306-66-023-5703	36	6))	(2) 0.75 lb
Pin, tent, steel, 22-in long, 8340-66-024-0947	56	10	X
User Handbook, tent, extendable, 7610-66-024-4786	1		

X - No weights shown as these pins will eventually be replaced by lightweight types.

X - No weights shown as these pins will eventually be replaced by lightweight types.

CHAPTER TWO - ERECTION INSTRUCTIONS

SECTION 4 - ERECTION PARTY AND TOOLS

15. An NCO and seven Other Ranks are required to erect the tent. Sledge hammers are provided for driving in the tent pins and adjustable wrenches for tightening the clamp bolts.

16. No ladder is required; when it is necessary to make adjustments beyond normal reach, the vehicle used for transport of the tent or any suitable available vehicle may be used, either inside or outside the tent.

SECTION 5 - PRELIMINARY PREPARATIONS

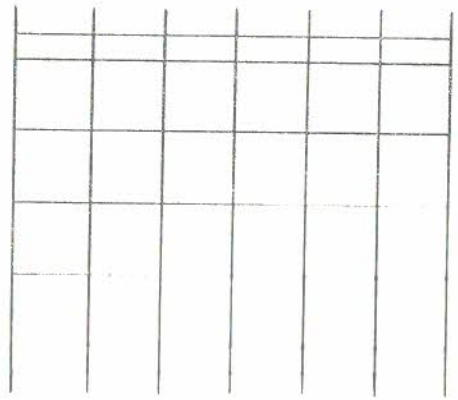
17. Before any stage of erection is begun ensure that tubular components are clean and not blocked by mud or other obstruction, and that all other items are clean.

18. Select a site on even ground cleared of debris. Should undulations be unavoidable it may be necessary to let some supports and their bases into the ground.

19. All members of the erection party should already be familiar with Chapter One which deals with the recognition and use of component parts of the tent.

20. Lay out all components. Fig 12 shows 14 positions for the tent uprights, and lists the components at each position. Approximately 30-ft should separate the two lines of framework components. Clamps should be fitted to the tubular locking braces and the flat supporting braces, if this has not already been done.

								Totals
Support, Tent, Tube (Short)	1	1	1	1	1	1	1	7
Support, Tent, Tube (Long)	7	7	7	7	7	7	3	45
Socket, Support, 4-way, (Straight Type)	2	2	2	2	2	2	2	14
Socket, Support, 4-way, (Angle Type)	2	2	2	2	2	2	2	14
Brace, Locking, Male, (With Clamp Assembly)	1	-	-	-	-	-	1	2
Brace, Locking, Female, (With Clamp Assembly)	-	-	1	-	1	-	2	6
Brace, Supporting, Flat, (With Clamp Assembly)	1	1	-	1	-	1	1	5
Base, Tent, Pole	1	1	1	1	1	1	1	7
Position Nos	(1)	(2)	(3)	(4)	(5)	(6)	(7)	



Position Nos	(8)	(9)	(10)	(11)	(12)	(13)	(14)	Totals
Support, Tent, Tube (Short)	1	1	1	1	1	1	1	7
Support, Tent, Tube (Long)	6	6	6	6	6	6	3	39
Socket, Support, 4-way, (Straight Type)	2	2	2	2	2	2	2	14
Socket, Support, 4-way, (Angle Type)	1	1	1	1	1	1	1	7
Brace, Locking, Male, (With Clamp Assembly)	2	-	1	-	1	-	2	6
Brace, Locking, Female, (With Clamp Assembly)	1	-	-	-	-	-	1	2
Brace, Supporting, Flat, (With Clamp Assembly)	1	1	-	1	-	1	1	5
Base, Tent, Pole	1	1	1	1	1	1	1	7

FIG 12 - LAYOUT OF FRAMEWORK COMPONENTS BEFORE ERECTION

FIG 12 - LAYOUT OF FRAMEWORK COMPONENTS BEFORE ERECTION

SECTION 6 - ASSEMBLY OF ROOF FRAME (SIDE 1)

Ridge Line

11. Take six supports from positions 1-6 inclusive and lay them out centrally between the two lines of components. Allow a gap for each angle type support socket.

12. Take the angle support sockets from positions 1 to 7 inclusive, and place one in each gap and at each end of the row of supports.

13. Starting from ONE end, fit the support sockets to the supports. This completes the ridge line (see Fig 13).

> NOTE
>
> When assembling supports to support sockets always ensure that the supports penetrate the full depth of the socket bore.

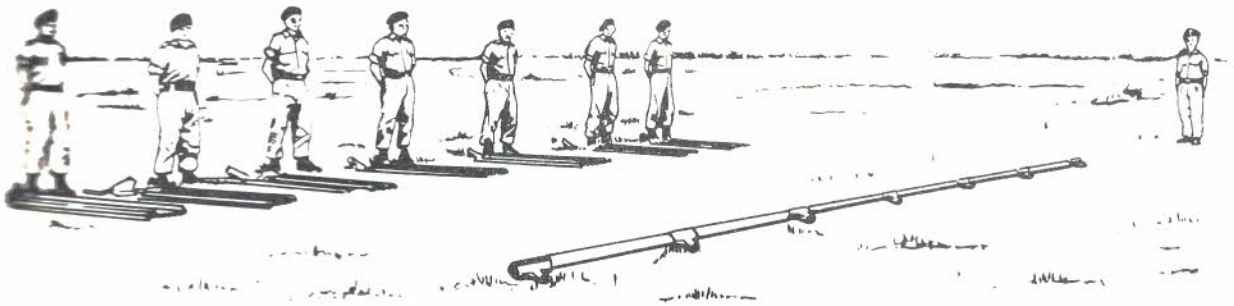


FIG 13 - ASSEMBLY OF RIDGE LINE

Ridge Line to Intermediate Line (Side 1)
(See Figs 14 & 15)

24. Lay out six supports for the intermediate line along one side, approximately six feet out from and parallel to the ridge line, and allow gaps for straight support sockets.

25. Place the straight support sockets in the gaps and at each end of the row of supports. Then assemble as for the ridge line (para 23).

26. Along the same side of the ridge line, lay one lateral support at each of the seven angle support sockets. Fit the supports to the support sockets of the ridge line (Fig 14).

27. Move up the intermediate line (para 25) and assemble it to the lateral supports (Fig 15).

Intermediate Line to Eave Line (Side 1) (See Figs 16 & 17)

28. Approximately six feet out from and parallel to the intermediate line, assemble the eave line, using the same components and procedure as for the ridge line (paras 21, 22, and 23).

29. Lay out seven lateral supports and assemble them to the support sockets of the intermediate line (Fig 16). Move up the eave line and assemble it to the lateral supports. This completes the roof frame on one side of the ridge line only. (See Fig 17.)

Ridge Line to Eave Line (Side 2) (See Figs 18 to 21)

30. Repeat the drill outlined in paras 24 to 29 on the opposite side of the ridge line as shown in Figs 18 to 21.

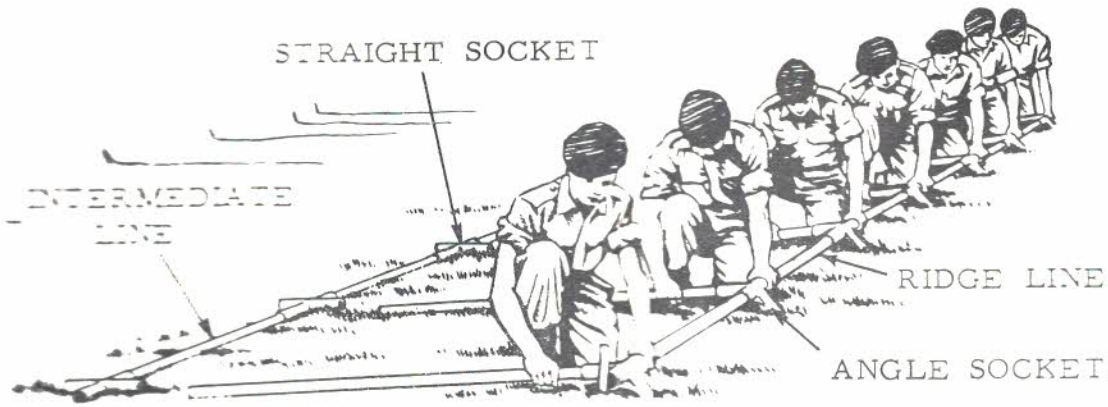


FIG 14

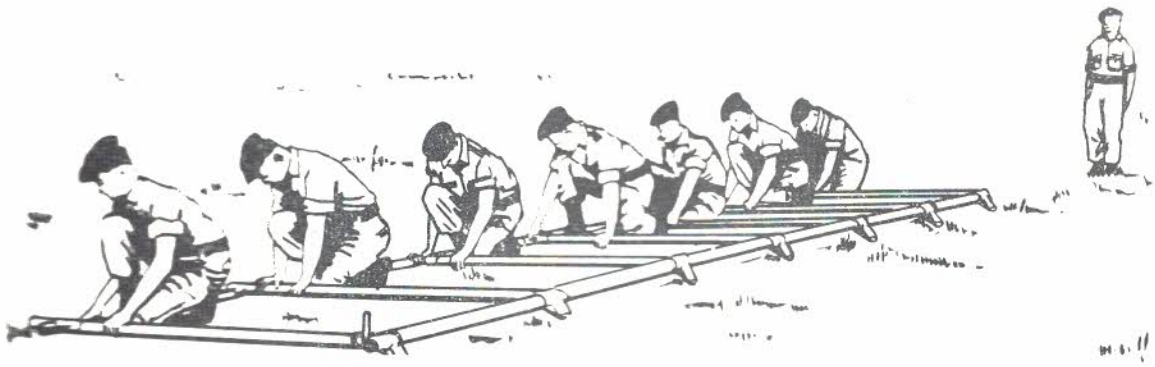


FIG 15

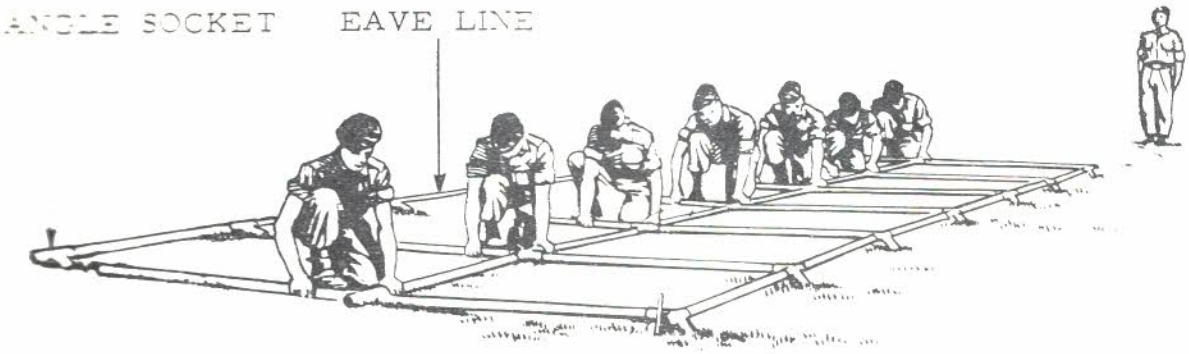


FIG 16

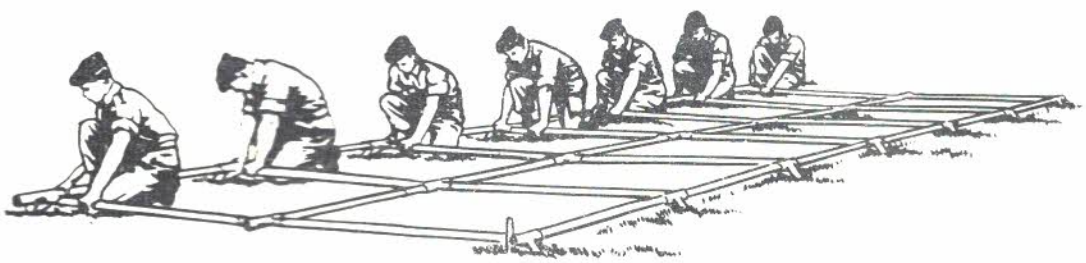


FIG 17

ASSEMBLY OF ROOF FRAME (SIDE 1)

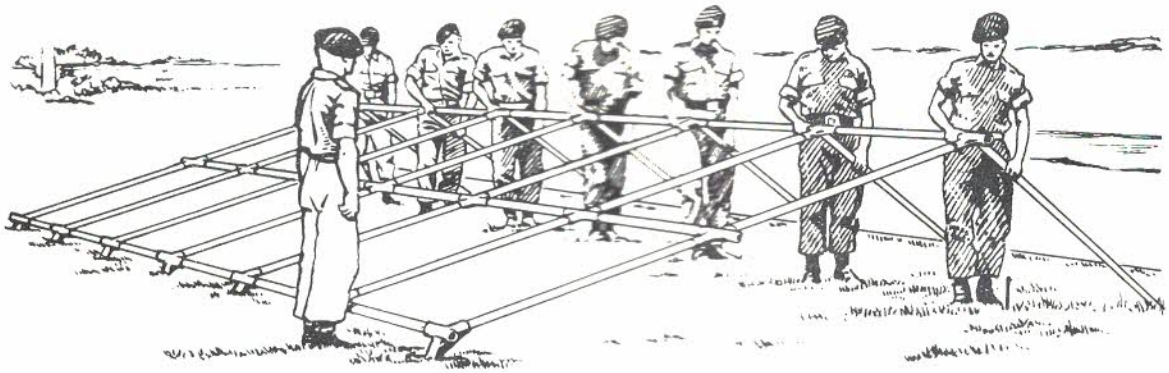


FIG 18

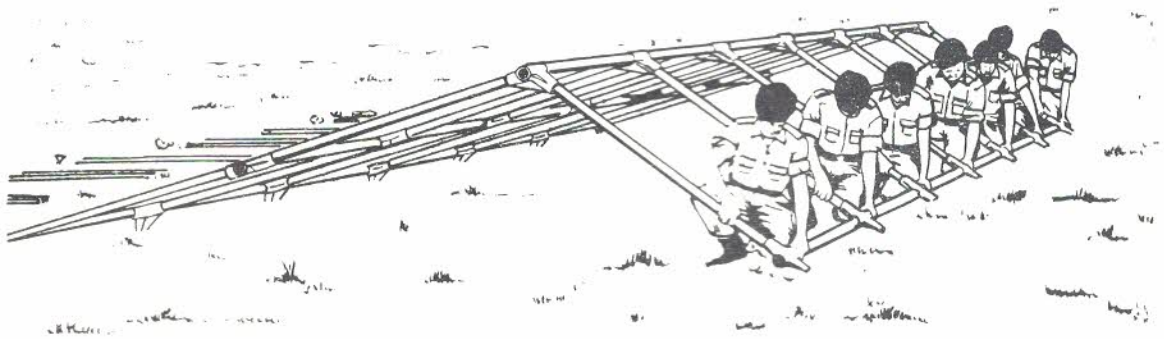


FIG 19

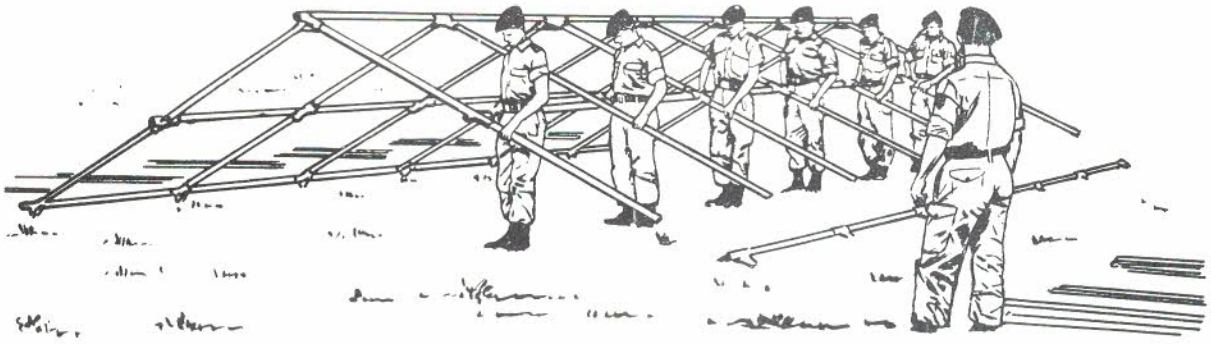


FIG 20

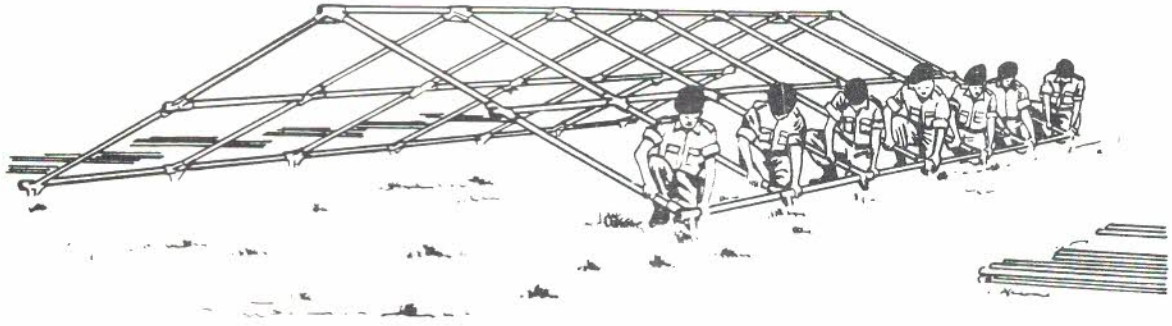


FIG 21

ASSEMBLY OF ROOF FRAME (SIDE 2)

Horizontal Bracing of Roof Frame

1. Join together the male and female tubular locking braces (which are each fitted with a support clamp) to form complete locking braces as in Fig 11.

2. Starting from one end of the roof frame, attach and secure a complete locking brace, by means of its support clamps, to the first and each alternate support in the Eave Section of Sides 1 and 2. It will be seen in Fig 11 that the clamp on each end of the brace fits directly below the first straight socket of the intermediate line on each side.

> **IMPORTANT**
>
> Where it is seen that a bolt must come in contact with the canvas cover, ensure that the head of the bolt faces the canvas. This should be done with the locking brace at each end of the tent

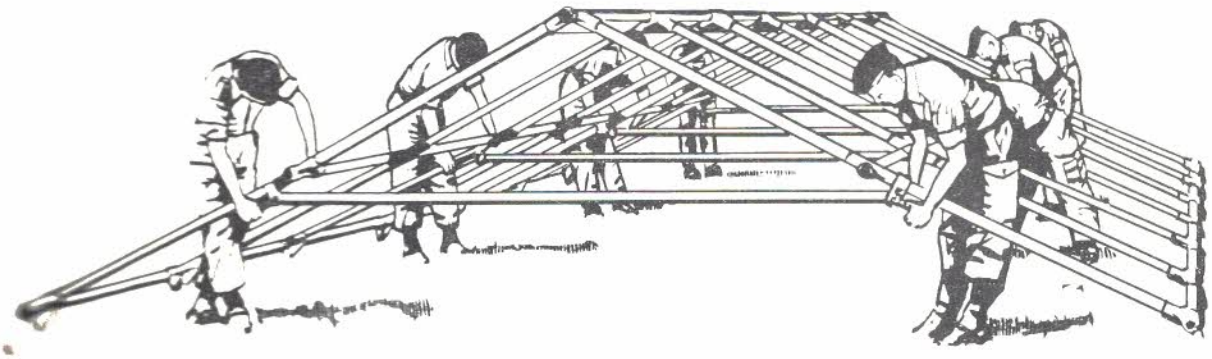


FIG 11 - FITTING HORIZONTAL TUBULAR LOCKING BRACES

SECTION 7 - ASSEMBLY OF UPPER WALL (SIDE 2)

Eave Line to Intermediate Line of Wall

33. Lay out seven lateral supports from positions 8 to 14 (see Fig 10). Lift the roof frame at the eave line, and fit the supports as shown in Fig 23.

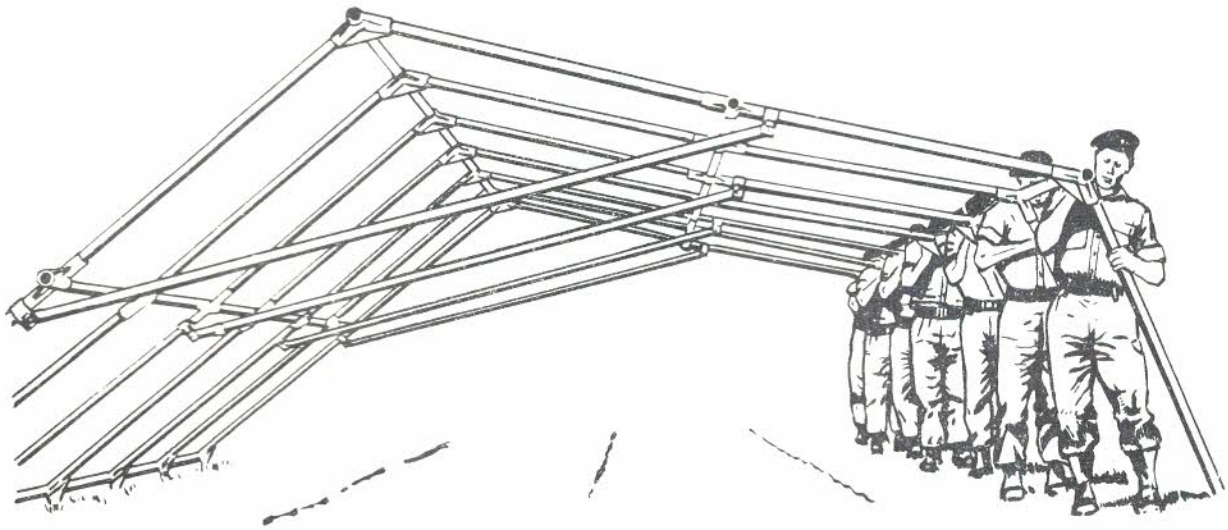


FIG 23 - FITTING UPPER WALL SUPPORTS TO EAVE LINE

34. Lay out six supports and leave gaps for straight support sockets. Place the sockets in the gaps and at each end of the row of supports.

> NOTE
>
> If an Interconnecting Tent is to be attached to this side, leave out one of these six supports from the intermediate line.
> (See Note, para 66, Fig 33)

35. Starting from ONE end fit the support sockets to the supports to complete assembly of the intermediate line of the wall.

36. Lift the lateral supports and fit the intermediate line of the wall.

SECTION 8 - FITTING OF DIAGONAL TUBULAR BRACES

37. Continuing on Side 2, attach a female locking brace to each end on that side of the frame, by means of the support clamps already fitted, on the horizontal brace as in Fig 24.

38. Tighten the bolt finger tight only at this stage as overtightening might damage the casting during later erection.

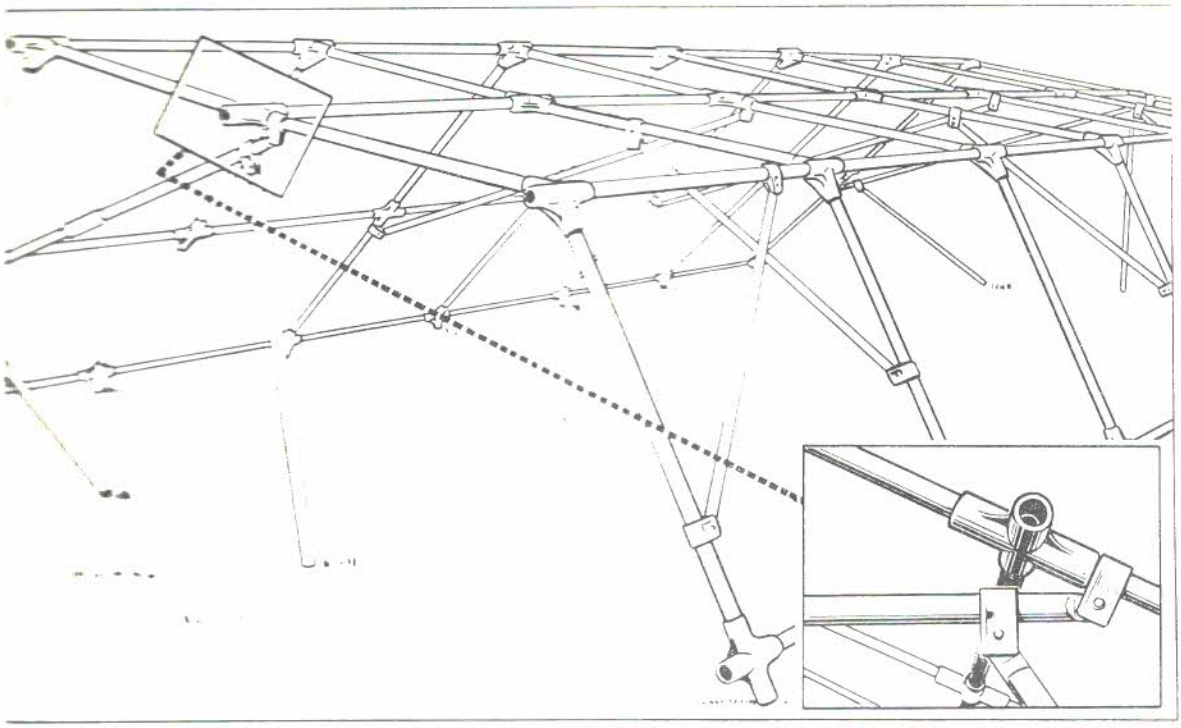


FIG 24 - DIAGONAL LOCKING BRACE FITTED

ALL BOLT HEADS MUST FACE OUTWARDS

39. The locking braces at each end should be left hanging free at this stage.

SECTION 9 - FITTING OF FLAT BRACES (SIDE 2)

40. At both corners of Side 2 and at 45 degrees from the eave line to the corner support attach a flat supporting brace by means of clamps, as shown in Fig 25 (see Arrow 1). Ensure that EVERY bolt head faces outwards, and that all supports are fully inserted in the support sockets.

41. Attach flat braces as in Fig 25 Arrow 2) in each section not braced by tubular braces. Four flat braces are required.

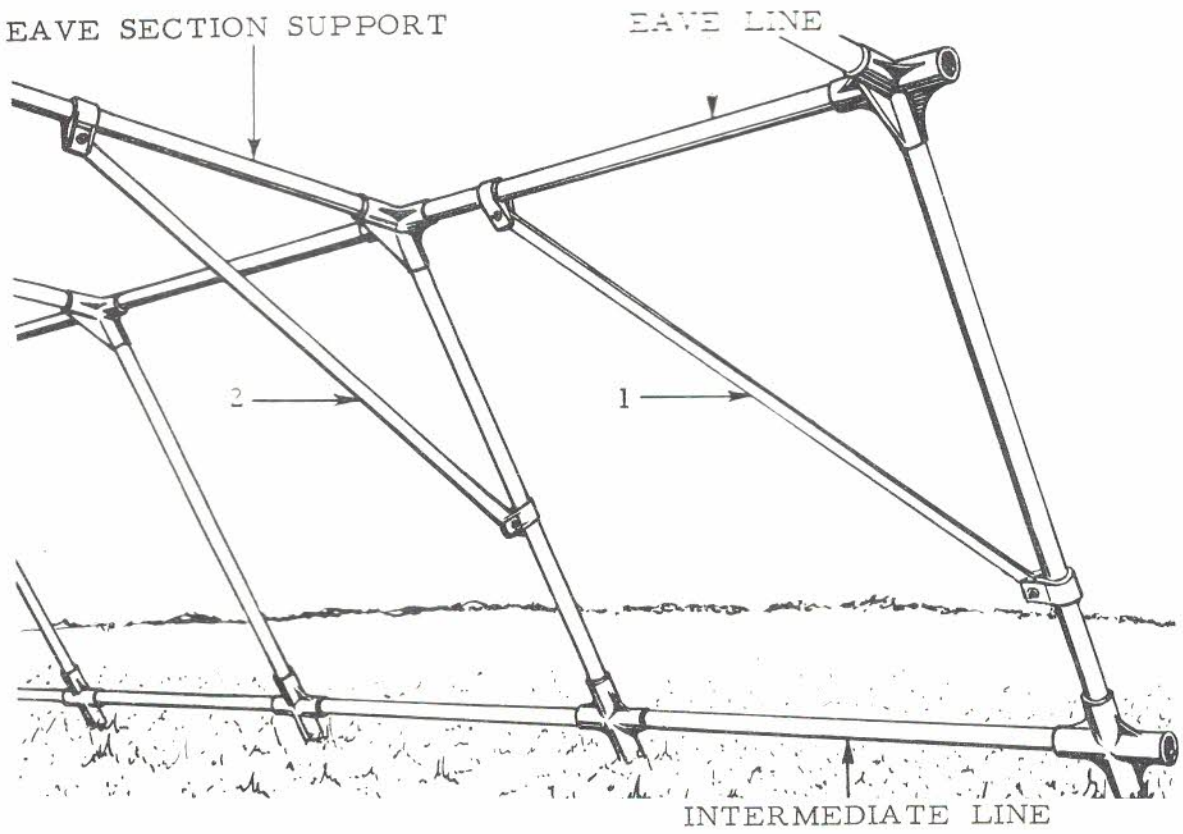


FIG 25 - FLAT SUPPORTING BRACES FITTED TO UPPER WALL AND ROOF SUPPORTS

SECTION 10 - FITTING THE COVER

42. Drive pins approximately six feet from each corner of the frame as shown in Fig 26.

43. Lay out the cover sections, inside upwards, and line up ready for lacing the two end sections and one extension section.

44 Starting from the ridge line of the cover, lace up the roof sections to the eave line only, on both sides of the ridge line. Ensure that the weather flaps, provided on the outside of the cover to conceal the lacings, are tied.

6. Pull the assembled cover over the frame and, starting from the [illegible] lace up as much of the wall and the corners as is possible at this [illegible] Secure the doorway, tie down the wall and corner weather flaps, [illegible] the roof cowls with the ropes provided and attach the doorway pulley [illegible] to the horizontal locking brace at each end of the frame. Secure the [illegible] to the pins as in Fig 26.

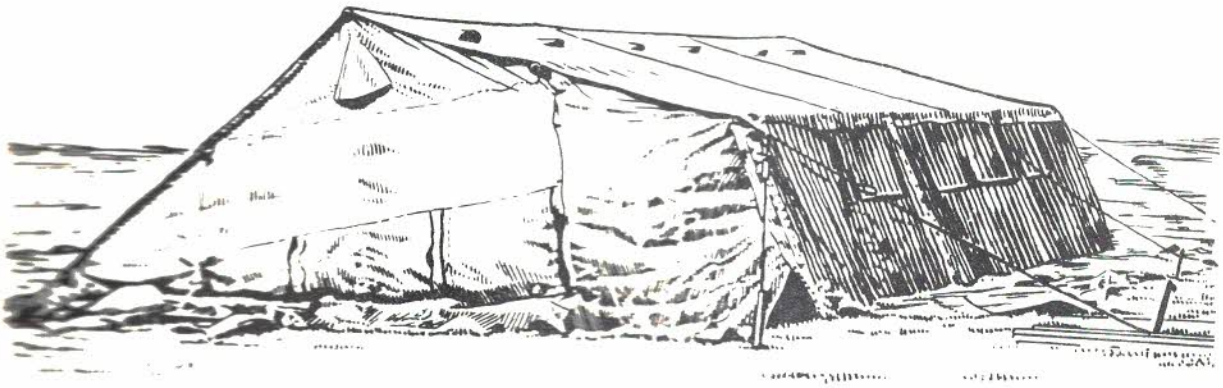


FIG 26 - FIRST STAGE OF FITTING COVER

Inner Roof

7. Attach the three identical roof inner sections (aluminium side downwards) and fasten them to the frame as far as possible.

IMPORTANT

The seams of the inner sections must be parallel to the horizontal locking braces from SIDE 1 to SIDE 2

SECTION 11 - ASSEMBLY OF THE UPPER WALL (SIDE 1)

47. Repeat the drill laid down in paras 33 to 39. (See also Figs 23 and 27). When the upper wall is completed secure the corner guys.

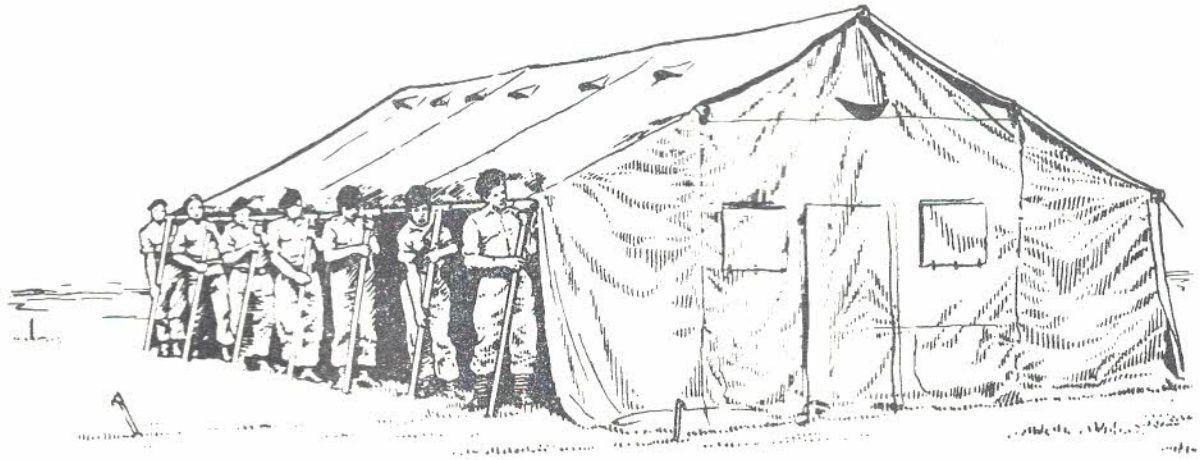


FIG 27 - FITTING UPPER WALL SUPPORTS TO EAVE LINE (SIDE 1)

SECTION 12 - COMPLETION OF ERECTION (SIDE 2)

48. Attach corner and upper wall braces as in paras 40 and 41.

49. Lay out seven supports (short) close to the frame. Lift the frame by the intermediate line and fit the supports to the straight sockets on the intermediate line of the wall.

52. Lay out and fit seven tent pole bases to the supports.

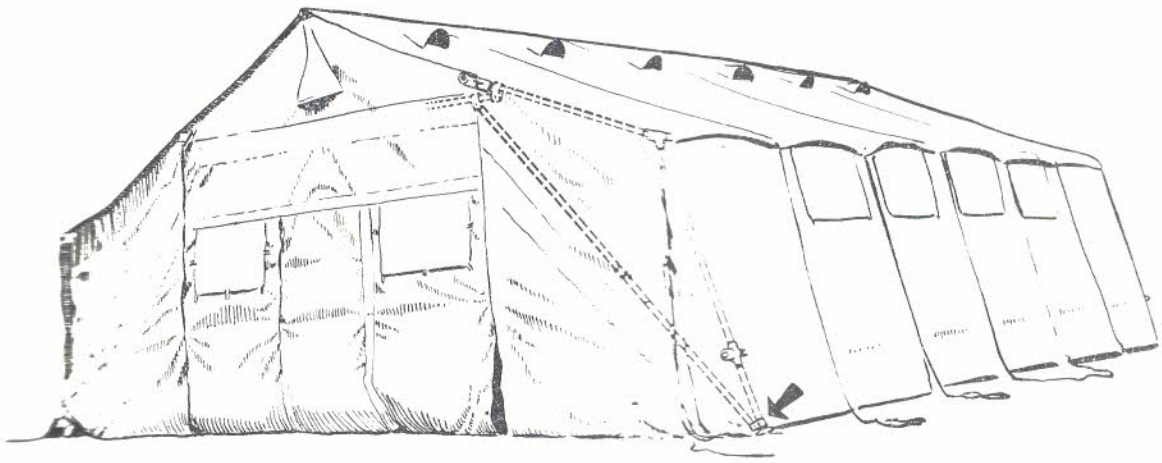


FIG 28 - COMPLETION OF WALL ON SIDE 2

53. At each end of Side 2 fit a male locking brace to the female locking brace, and fit the male brace by means of its support clamp to the corner support of the Lower Wall. The position for attachment will be self determining, but, as seen in Fig 28, will be at the lower end of the supports (short). See arrow.

SECTION 13 - COMPLETION OF ERECTION (SIDE 1)

51. Continue lacing the outer cover, attaching of roof inner, and tying weather flaps on this side.

52. Lay out seven supports (short), and lift the frame by the intermediate line of the wall, and assemble the supports to the intermediate line sockets.

54. Lay out and fit seven base tent poles to the supports.

55. Fit the male locking brace to the female locking brace on both ends of this side.

56. Complete the lacing of the outer cover and the tying of the weather and window flaps as required.

SECTION 14 - GUYING AND PEGGING DOWN

57. Line up the wall supports lengthwise on both sides; drive in the tent pins as in Fig 29, and secure the guy ropes. Starting from one end work down both sides simultaneously, (layout of the guy ropes is shown in Fig 29).

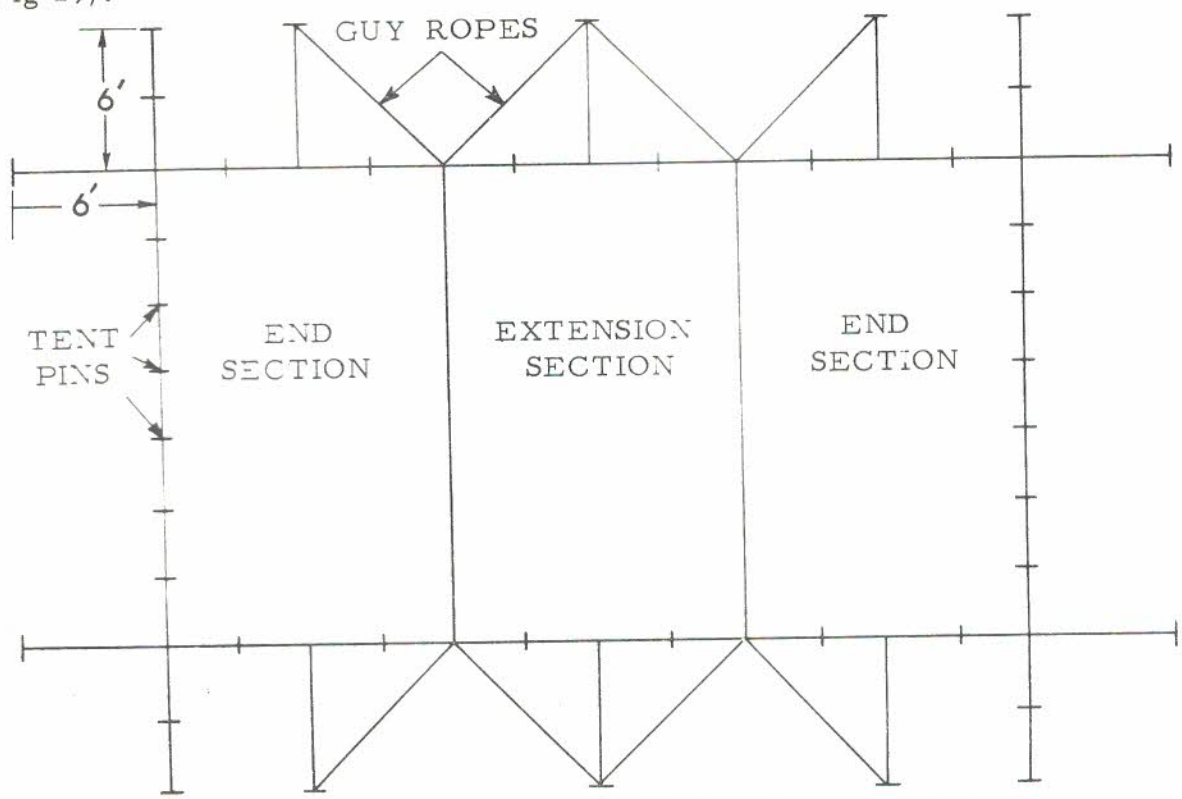


FIG 29 - PIN POSITIONS AND GUY ROPE LAYOUT

58. Ensure that all doorways are clipped together, insert the wall and door pins, and tie the inside of the outer cover to the frame.

59. Connect toggles and rope ends of the doorway at ground level. Check all bolts for tightness.

60. The tent is now erected and ready for use.

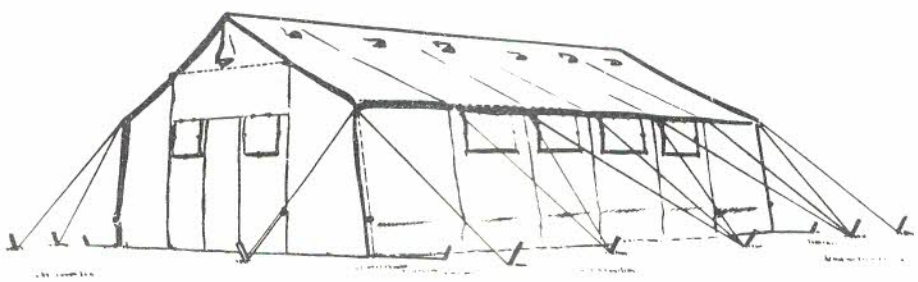


FIG 30 - TENT READY FOR USE

CHAPTER THREE - TENT, SECTION, ASSEMBLY, INTERCONNECTING, 10-FT LONG x 5-FT WIDE

SECTION 15 - GENERAL DESCRIPTION

[illegible] The interconnecting tent provides an unobstructed, covered passage between brigaded General Purpose Tents.

[illegible] Its lightweight metal frame is clamped to the inclined walls of two adjacent tents. It is covered by a rot-proofed lightweight textile cover which is laced to the covers of the tents.

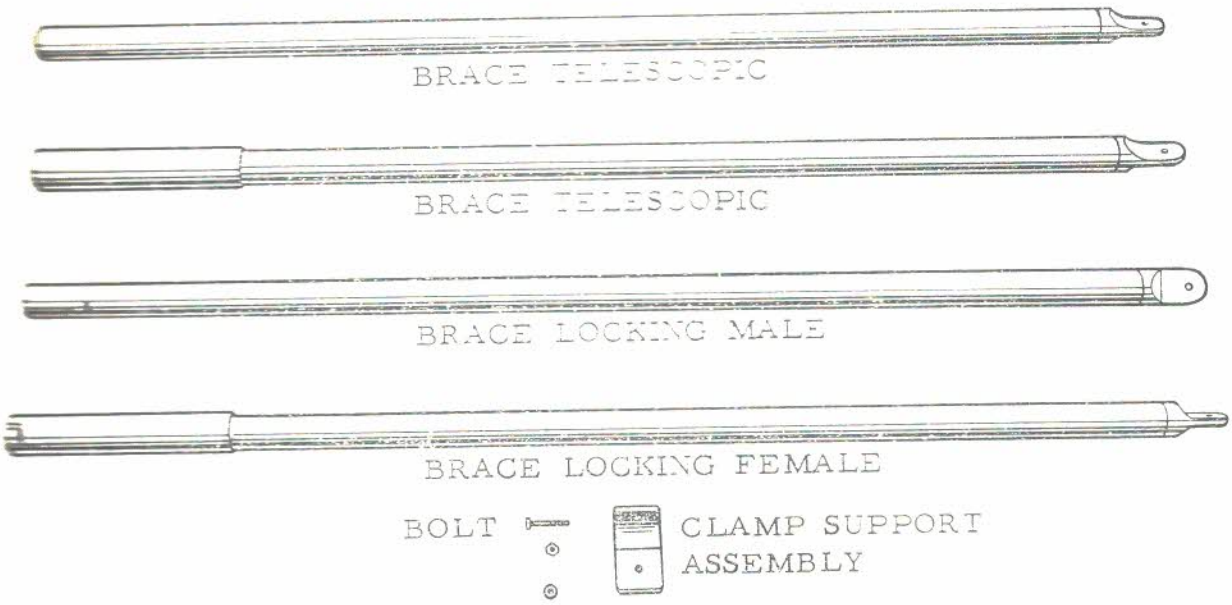


FIG 31 - INTERCONNECTING TENT METAL COMPONENTS

[illegible] The components required for the erection are shown in Fig 31. Abbreviated nomenclatures are used to facilitate description; the full nomenclatures, together with the quantities of each item used, are given in Table 2 - Load Table (on page 24).

TABLE 2 - LOAD TABLE

TENT SECTION, ASSEMBLY, INTERCONNECTING, 10-FT x 5-FT

Designation and Stock Number	Qty	Weight (approx)
Tent Section, cover, interconnecting, 10-ft long x 5-ft wide, 8340-66-023-6842	1	22 lb
Brace, locking, tent, aluminium, tubular, male, 5-ft 4-in x 2-in od x 12 SWG, 8340-66-023-5953	1	)) 10 lb
Brace, locking, tent, aluminium, tubular, female with sleeve 5-ft 4-in x 2-in od x 12 SWG, 8340-66-023-7041	1	) complete)
Brace, telescopic, tubular, aluminium, (in two parts), 9-ft 11-in x 2-in od x 12 SWG, 8340-66-023-6845	2	10 lb ea.
Clamp, support, tent, aluminium, 8340-66-023-5955	6 prs	0.8 lb ea.
Washer, flat, round, CRES, 3/8-in bolt size x 3/4-in od x .035-in thick, 5310-66-023-5949	12))	1.2 lb
Nut, plain, Hexagon, BSW, free fit, CRES, 3/8-in, 5310-66-023-4718	6)	total qty
Bolt, machine, BSW, medium fit, CRES, hexagon head, 3/8-in x 2.1/2-in x 1.1/4-in min thread, 5306-66-023-5703	6))	
Pin, tent, steel, 22-in long, 8340-66-024-0947	4	X

X - No weights shown as these pins will eventually be replaced by lightweight types.

[illegible] The positions of brigaded GP tents when using the interconnecting [illegible] are shown in Fig 32.

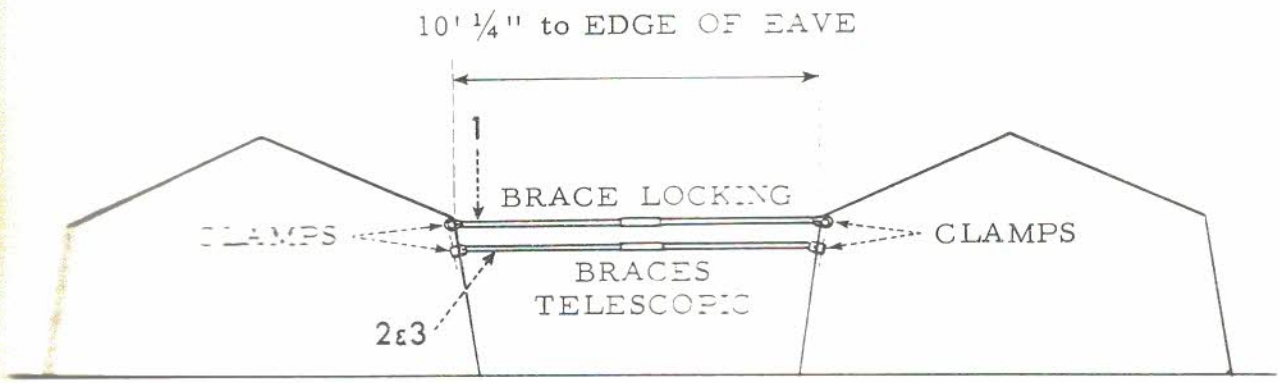


FIG 32 - ATTACHING OF BRACES TO GP TENTS

SECTION 1b - ATTACHING THE INTERCONNECTING TENT FRAME TO THE GP TENTS

33. Unlace the wall section of the GP tent's extension section at the desired position.

34. Remove the obstructing supports from the GP tents (see Fig 33).

> NOTE
>
> If the interconnecting tent is being erected at the same time as the GP tent, leave out the support as in the Note below para 34

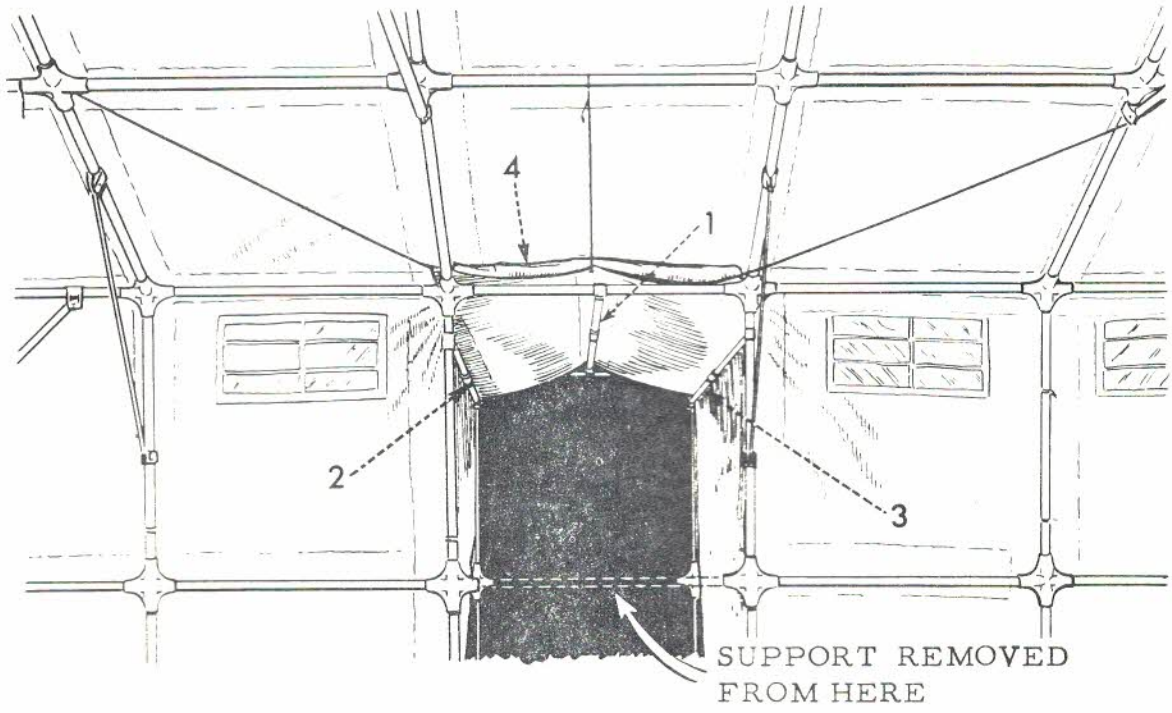


FIG 33 - LOCATION OF BRACES AND ROOF TIES

67. Join together the male and female tubular locking braces to form a complete locking brace, and attach the brace to the eave line of each GP tent (see Arrow 1, Figs 32 and 33). ENSURE THAT THE BOLT HEADS IN THE CLAMPS FACE THE CANVAS.

68. Assemble the two halves of each telescopic brace and attach the brace as shown in Figs 32, 33 to the GP tents (see Arrows 2 and 3). The point of attachment is just below the angle type support sockets of the eave line. ENSURE THAT THE BOLT HEADS FACE THE CANVAS.

SECTION 17 - FITTING THE TEXTILE COVER

[redacted] Lay the textile cover over the framework and lace the four [redacted] to the GP tents.

[redacted] Roll up the unwanted cover of the GP tent extension section, and [redacted] under the cover of the interconnecting tent (see Arrow 4 Fig 33).

[redacted] Attach the three roof ties of the interconnecting tent cover to the [redacted] members of the GP tents (see Fig 33).

[redacted] Peg down the walls at the appropriate places to complete the [redacted] of the interconnecting tent.

CHAPTER FOUR - USER MAINTENANCE

SECTION 18 - CARE OF TENT

73. The tent cover is made of rot-proofed material. If it is necessary to dismantle the tent when wet, the cover must be dried at the earliest opportunity to prevent fungus growth.

74. When lacing the cover sections together it is essential that only personnel wearing direct moulded rubber sole boots be permitted to walk on these sections. Leather or studded soles will damage the material.

75. If damage (burrs, etc) should occur to the ends of the tent supports or to the support sockets, this can be removed by filing. Avoid excessive filing as this can cause wear which will result in poor connections.