Rope

Sisal rope is usual at the moment, but synthetic fibres are better for some purposes. If your ropes are likely to get wet often, e.g. with river crossings, then Terylene or polypropylene ropes will last much longer because they do not rot. The initial outlay on these kinds of rope is greater, but a smaller circumference can be used as they are much stronger, and they will last longer if treated properly. They also have the advantage of wearing from the outside so that their condition can be seen easily, whereas sisal rots from within and can break with almost no warning, which can be dangerous.

So when buying new rope do think seriously about this. You must have the correct strength rope for the job in hand. Consult the pioneering books, but as a rough guide, use at least 15mm diameter ropes for bridges and normal structures not exposed to excessive strains, and at least 20mm diameter but preferably 24mm diameter for aerial runways. Store the ropes carefully and check them frequently. They can deteriorate rapidly if they aren't properly looked after.

Lashings

Use proper lengths of 8 or 10mm diameter sisal, though thinner sisal can be used for small structures which are not going to support much weight. Pioneering can give Scouts a great deal of enjoyment if done properly, but it can be dangerous if you try to economise or don't take it seriously.

Blocks

For runways the double man-carrying ropeway block must be used. All types of rope and blocks can be obtained from Scout Shops Ltd.

Books

All books mentioned are by John Thurman, with illustrations by Kenneth Brookes and John Sweet.

Counterweight bridge

From Progressive Pioneering pages 105-7

Gear required

Spars

- Four, 6 m
- Two, 3 m
- Four, 1.8 m
- One heavy log for pivot
- Two logs for weights
- Fifteen staves

Ropes

- One, 9 m 12.5mm diameter.
Lashings
- Thirty, 4.5 m
- Twelve, 9 m

Blocks
- One, 5 cm single

Pickets
- Four

Oddments
- Maul
- Eight, 30 cm pegs

Swing boat

Gear required

Spars
- Six, 4.5 m main stays and bottom side supports
- Three, 2.4 m cross members - top
- Three, 3 m stout, pulling bar at top

Ropes
- Two, 7.5 m 15mm diameter short guys
- Two, 9 m 15mm diameter. main guys
- Two, 9 m 15mm diam. for supporting the seat
- Two, 4.5 m 12.5mm diam. pulling ropes

Lashings
- Twenty, 4.5 m includesanchoring ropes

Oddments
- One, 2.4 m stout plank
- Four pickets
- Four large tent pegs
- One maul
- One spade

Swinging derrick on a tree

From Pioneering Projects pages 69-71

Gear required

Ropes
- One, 15mm diam. 18-30 m
- One, 15mm diam 15 m
- Two, 8mm diam. guide lines approx 18 m

Spars
- Two, 3.6-4.5 m
- Two, 0.9-1.5 m

Pickets
- Two for anchoring guide lines, etc
**Lashings**
- Seven, 4.5 in
- Three, 6 m

**Blocks**
- Two double sheave
- Three single sheave

**Oddments**
- Sacking for tree
- Plank for chair
- Sisal for mousing

**Pyramid tower**

**Gear required**

**Spars**
- Three, 5 m
- Three, 4 m
- Three, 3.5 m
- Three, 2 m
- Twelve staves from 1-2 m

**Lashings**
- Five, 6 m
- Fifteen, 4.5 m
- Twenty-six light lines for platform and ladder

**Oddments**
- Rope ladder

**Oil drum raft**

*From Fun with Ropes and Spars pages 77–79*

*From Fun with Ropes and Spars pages 32–4*
Gear required

**Spars**

- Four, 4.5 m
- One, 3 m
- Four, 2 m
- Five, 1.5 m

**Lashings**

- Two, 6 m
- Forty, 4.5 m
- Cod-line or sisal for oil drums

**Oddments**

- The equivalent of ten or twelve 5 gallon oil drums Canvas for sail
- One rudder or paddle
- One heavy plank weighted
- One handy billy
- One reeved single and double pulley system

**Aerial runways**

*The Aerial Runway Code* which sets out full details on the construction of aerial runways is available from the Information Centre, Gilwell Park quoting FS315057.