Backpack, Large (TL6). A heavy pack with frame. Dubbed a "mountaineering pack" by some, it's typical of most modern military expedition packs. Holds 100 lbs. Double cost at TL8. \$100, 10 lbs. LC4.

CLIMBING AND MOUNTAINEERING GEAR

Perhaps the most famous climb in modern memory is George Mallory's third attempt at Mt. Everest in 1924. Mallory and assistant Sandy Irvine were last seen less than 300 yards from the summit – "moving expeditiously" toward the top, as one observer famously said – before they vanished. New Zealander Sir Edmund Hillary and his Sherpa, Tenzing Norgay, succeeded in 1953. Mallory's remains were discovered in 1999, but the mystery of whether he and Irvine beat Hillary to the top remains.

Climbing Equipment (TL5)

Climbing is a complicated and potentially dangerous undertaking. Ropes fray, bolts pull loose, and high winds can toss a climber off a precipice without warning. Sometimes, though, tackling a crag (or an office tower!) is the only way to get the job done.

The well-equipped climber wears a harness connected to a safety line that is tied off to fasteners. This will stop his fall, should one occur. The results of a fall depend largely on the terrain and the precautions taken. In general, the maximum distance the climber can fall is *twice* the distance between the last fastener and his current position. Safety-conscious climbers tie off every few feet, guaranteeing a short fall with little chance of injury. Braver souls – and those in a hurry – tie off less often.

The easiest way to come down is to rappel. This requires rope, a harness, and a carabiner or descender. Normally, the climber faces the wall (mountain, building, etc.), looks over his shoulder as he slides down the rope, and pushes off

Humping, Tramping, and Yomping

Whatever you call it, marching cross-country under full kit is exhausting. The hiking rules in the *Basic Set* are intentionally simplistic – they assume fine weather, ideal terrain, and a grueling 16-hour day spent doing nothing but putting one foot in front of the other. Hikers often march for less than a full day, which can make it useful to know *hourly* movement rates.

Assume that speed in miles per hour equals Move/2. Adjust the pace as usual for terrain, weather, and roads; see p. B351. Note the FP costs for an hour of hiking given on p. B426 – good FP scores and the Fit advantage (p. B55) give a significant edge here! Extra effort works as usual (see p. B357). Each foraging attempt (p. B427) takes an hour, during which no progress is made.

the wall with his feet. A more daring method is to stand directly out from the wall, facing downward, and *run* toward the bottom. SWAT men and soldiers sometimes rappel this way so that they can *shoot* on the way down! This counts as bad footing and a minor distraction, for a net -4 to hit (see p. B548) – but the Sure-Footed perk (p. 250) can partially mitigate the penalty.

Climbing is possible without special gear, but speed is reduced and there's no limit to how far you can fall. For climbing and rappelling speeds, see *Climbing* (p. B349). For the consequences of a failed climb, see *Falling* (p. B431).

Fasteners (TL5). Also called "protection," these devices hold a rope fast in case the climber slips. Models differ by function: some are hammered into rock, others are placed in cracks or crevices, and still others are screwed into solid ice. Be they soft iron spikes (\$1, 0.5 lb. apiece), steel pitons (\$5, 2.5 lbs. for 10), or ice screws (\$5, 0.25 lb. apiece), all penetrate the climbing surface. LC4.

Harness (TL5). A climbing and rappelling harness with several snap-links or carabiners. \$75, 3 lbs. LC4.

Ascender (TL6). Uses a cam or a ratchet to ascend a free-hanging rope. Cancels the -2 for climbing *up* a rope (p. B349). \$50, 1 lb. LC4.

Descender (TL6). A D-shaped device for rappelling down a rope. Cancels the -1 for climbing *down* a rope (p. B349), and allows the climber to stop and hang in midair with both hands free. \$50, 0.75 lb. LC4.

Hand Drill (TL7). A one-man rock drill (p. 26). It requires one hand to hold the drill bit and another to hammer. It takes 30 minutes to drill a 3" bolt hole in normal rock. Bolts (\$5, 0.1 lb. apiece) are hammered into the hole, and expand to grip the sides firmly. \$50, 0.5 lb. LC4.

Climbing Kit (TL8). Harness, ascender, descender, an assortment of fasteners, and 100 yards of 3/8" rope. A high-quality kit provides a bonus to Climbing skill. \$400, 26 lbs. I C4

Mini-Rappel Kit (TL8). A complete rappelling system: harness, carabiner, descender, and 33 yards of 1/4" rope. The whole kit fits in a small belt pouch. \$150, 3 lbs. LC4.

Grappling Hook (TL5)

Getting a grapnel to the target requires a DX-3 or Throwing roll. Maximum throwing distance is ST×2 yards. Load limit is 300 lbs. at TL5, doubled at TL7. When a grapnel lands on stone, concrete, or similar materials, it can ring loudly – make an unmodified Hearing roll at 1 yard. A padded grapnel (+1 lb.) gives -2 to Hearing. At TL8, double cost buys a non-sparking, nonmagnetic version. \$20, 2 lbs. LC4.

Ice and Snow Gear (TL5)

If climbing is challenging and dangerous, then tackling a mountain or crossing a glacier can be downright *deadly*. There are over 120 corpses on Mt. Everest, with new ones added each year. Dangers include hypothermia, frostbite, avalanche, collapsing crevasses, and altitude sickness. Wellequipped modern climbers use the equipment below, plus air masks (pp. 72-73) and air tanks (p. 74).